

A topographic map of Macquarie Park, Australia, featuring a grid of streets and contour lines. Overlaid on the map are various strategic planning elements: a network of orange lines representing proposed or existing roads, a series of green lines indicating a transit or utility corridor, and black lines showing other infrastructure. Key roads are labeled 'M2' and 'A3'. The map also shows a river or waterway on the right side. The overall design is a technical, planning-oriented map.

MACQUARIE PARK STRATEGIC MASTERPLAN

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Document text subject to further integration and review from Old Ways, New



LANGUAGE PROTOCOL & TRANSLATIONS

Using respectful language and terminology is essential for ensuring the Macquarie Park Strategic Masterplan is both culturally appropriate and inclusive. This includes internationally and nationally endorsed terminology, as well as language local to Wallumattagal Country, as part of the Dharug nation, where the project is based.

Wallumattagal Place and people of the Black Snapper fish within Dharug Ngurra

Wallumai Black snapper

Matta Place

Gal People

Wallumattagal Ngurrangra Places and presences within the Wallumattagal clan areas

Dharug Collective name for the broader clan groups spanning across the major parts of Sydney

Ngurra Country: encompasses land, waterways and sky, and all the sentience and non-sentience, human and non-human beings, interdependent and interconnection with each other

Indigenous peoples United Nations Declaration of Rights for Indigenous Peoples term for first nations peoples - prefacing the plural, discrete identities of Indigenous peoples.

Aboriginal peoples First nations peoples, specifically from the Australian mainland continent, not including Torres Strait Islanders

Elders Those with cultural authority and seniority

Traditional Custodians Aboriginal People with a sustained intergenerational connection and obligations for caring and stewardship of Dharug Ngurra

Traditional Knowledges Specific cultural knowledges, skills and practices relating to Country, including Songlines, Dreaming, language, ceremony, symbols, seasons and cycles, held and transmitted within and by community.

Deep time A timescale that Aboriginal peoples use which recognizes their existence on Earth since the beginning of time.

Indigenous Protocols Protocols define appropriate ways of using Indigenous Traditional Knowledges, cultural material, and ways of engaging with Indigenous people and communities. They encourage ethical social norms and interactions based on reciprocity and respect.

KEY TERMS AND ABBREVIATIONS

NSW DPIE NSW Department of Planning, Industry and Environment

TfNSW Transport for NSW

GSC Greater Sydney Commission

GANSW Government Architect NSW

MPSIA Macquarie Park Strategic Investigation Area, the study area of this Masterplan

UAP Urban Activation Precinct

The Corridor Macquarie Park Corridor, encompassing the Macquarie Park Strategic Investigation Area, and the Macquarie University (Herring Road) and North Ryde Station Precinct UAPs

SISA Strategic Infrastructure and Services Assessment

Arup and Old Ways, New would like to acknowledge the Wallumattagal people of the Dharug nation. We recognise their history and pay respect to their culture, connection to their lands, waterways and surrounding clan groups. Our acknowledgment of Country and its Traditional Owners is expressed with deep reverence and connection to the importance of these protocols, and to the Wallumattagal Elders past, present and the future leaders of the community on which this project takes place.

EXECUTIVE SUMMARY

PURPOSE AND VISION

The NSW Government has commissioned Arup and Old Ways, New to develop this strategic masterplan to guide sustainable growth and infrastructure investment in Macquarie Park over the next 20 years and beyond. The purpose of this Strategic Masterplan is to ensure Macquarie Park continues to thrive as a key economic and job creation engine-room for Greater Sydney by building on its successes to date and transform into its next phase of evolution as a connected, productive, vibrant place to live, work and play.

The Macquarie Park Strategic Investigation Area (MPSIA), originally known by its Aboriginal name of Wallumatta, is one of the most important precincts for growing Greater Sydney's capacity as a centre for innovation, attracting top businesses from around the world and creating new jobs and opportunities for the people of Sydney. For millennia prior Wallumattagal Country, was a centre of higher learning and trade where central to all aspects of life and culture was the waterways and continuum of knowledges within the eel Songline.

This work has focussed on envisioning a future for Macquarie Park where these two histories meet with a clear vision and plan that places connection to Country at the heart of its next phase of evolution.

OBJECTIVES & THE STRATEGIC FRAMEWORK

The plan is focussed around three core objectives with supporting actions; to improve the quality of place, to improve the quality of movement and to improve the quality of business. Underpinned by a four-layer strategic framework which defines the key moves for future actions to improve place, movement, and business through the lens of economic actions, actions for transport and connectivity, and actions to create new and improved landscape and open spaces. A strategic framework is built out of this and provides an overarching structure plan for the precinct and its relationships to the wider corridor.

NEIGHBOURHOODS

Key to delivering these outcomes is the development of a series of sub-precincts or neighbourhoods. We have defined these based on their existing characteristics, economic attributes and environmental features including their relation to topography and their connection to Country. These neighbourhoods have their own precinct scale frameworks, and the work defines how new and improved connectivity, open spaces and the dispersal of new space for jobs, homes, culture and supporting activity centres is delivered. These seven places allow greater flexibility to deliver the proposed improvements over time and begin to change the perception of Macquarie Park as one suburban place into a richer, more diverse piece of city.

IMPLEMENTATION AND NEXT STEPS

This structure plan has informed the GSC led SISA study which sets out the infrastructure requirements and key projects required to sustain growth both in employment space and jobs, alongside the diversification of land use to include new homes and supporting place infrastructure. For each neighbourhood the report sets out a recommended sequence of actions and activities from major new infrastructure, catalytic development sites and the critical overlay of temporary and meanwhile uses. Following the consultation of these proposals, and integration of feedback this plan will form the basis of the ongoing evolution of this important community.



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1. INTRODUCTION

For over sixty years, Macquarie Park has evolved into a highly valuable centre of Sydney and Australia's economy. For millennia prior, Wallumattagal Country was a significant place of higher learning, river systems and trade.

The future of Macquarie Park is where these two histories meet. The Strategic Masterplan is a significant opportunity for Macquarie Park to reconnect strongly to its pre-colonial history as a place of trade, exchange and learning, and provide a roadmap to the future of business, knowledge and innovation.

The NSW Government has developed a strategic masterplan to guide sustainable growth and infrastructure investment in Macquarie Park over the next 20 years and beyond. The purpose of this Strategic Masterplan is to ensure Macquarie Park continues to thrive as a key economic and job creation engine-room for Greater Sydney by building on its successes to date and transform into its next phase of evolution as a connected, productive, vibrant place to live, work and play.

The Macquarie Park Strategic Investigation Area (MPSIA), originally known by its Aboriginal name of Wallumatta, is one of the most important precincts for growing Greater Sydney's capacity as a centre for innovation, attracting top businesses from around the world and creating new jobs and opportunities for the people of Sydney.

The Greater Sydney Commission (GSC) is leading the delivery and co-ordination of this key precinct, incorporating a whole of state and local government approach to the investigation. The Commission's role in Macquarie Park will be to work alongside a range of industry leaders as well as Treasury NSW, NSW Department of Planning, Industry and Environment (DPIE), Investment NSW, Transport for NSW and NSW Health to support the creation of Macquarie Park as a place for industries to go, grow and thrive.

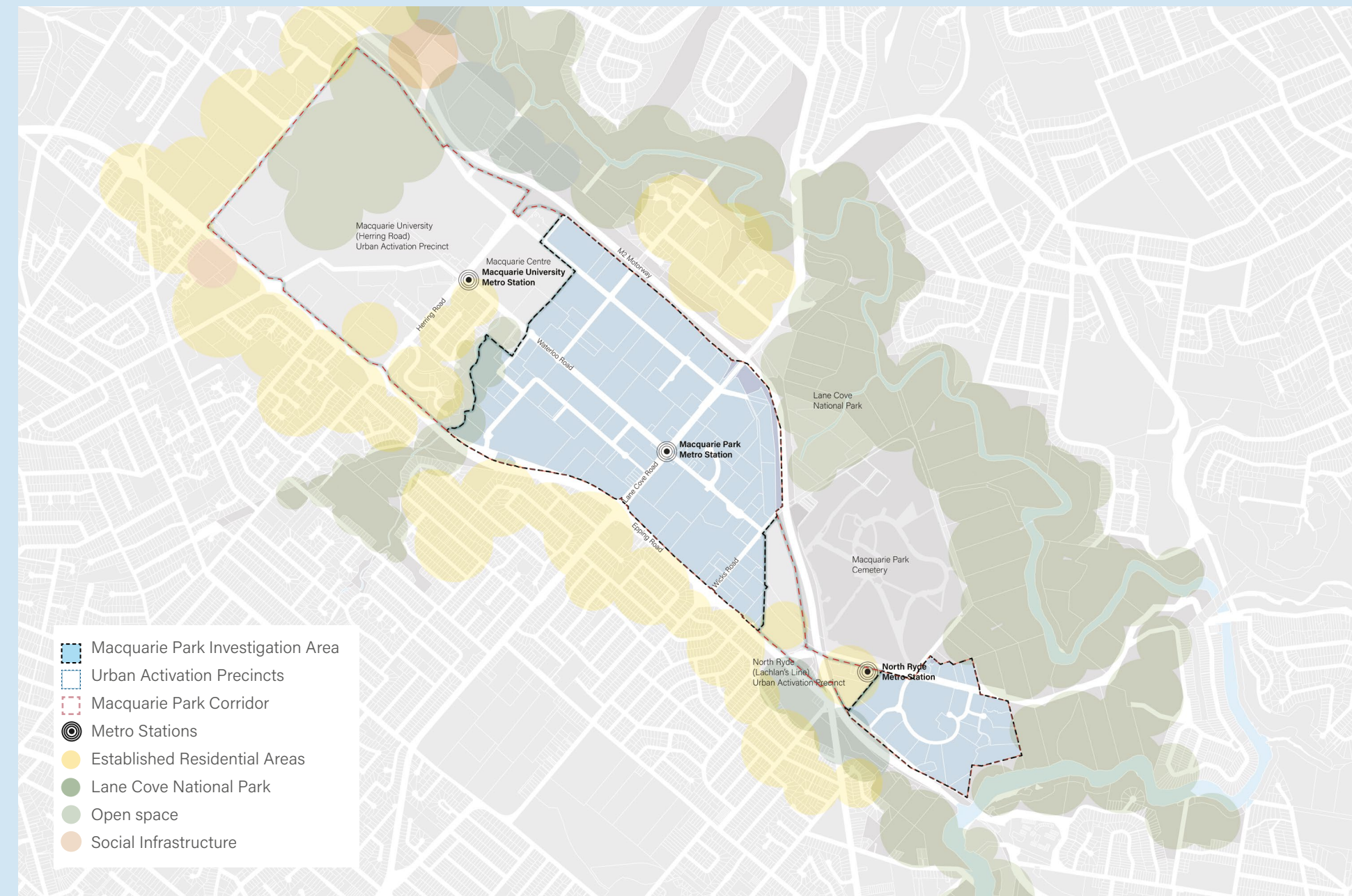
DPIE is supporting the Commission's investigation, through the development of land use analysis and a spatial master plan to unlock Macquarie Park's full economic potential by supporting job growth, innovation and creating a place for people deepened by the recognition of Wallumattagal Country.

THE CORRIDOR

Macquarie Park Corridor (the Corridor), as shown in the diagram opposite, is bound by Epping Road, Delhi Road, M2 Motorway and Vimiera Road and sits adjacent to the Lane Cove National Park.

The Corridor benefits from access to a skilled workforce and connections to Sydney CBD by road and rail networks. The opening of Sydney Metro Northwest is a catalyst for stronger transport connections and employment growth, providing better and more frequent access from Sydney CBD to Rouse Hill and to soon connect through to Bankstown via the CBD in 2024.

The area as a whole is changing significantly. The strategic investigation area sits within the Corridor and covers approximately 170 hectares and includes land between Macquarie Centre and Ivanhoe Estate (Herring Road Precinct) to Lachlans Line and Riverside Corporate Park (North Ryde Station Precinct). These key centres are also undergoing significant transformations as part of the Urban Activation Precinct (UAP) programme.



THE CONTINUED EVOLUTION OF A SUCCESSFUL PLACE

Wallumattagal Ngurra has always been a significant place of interconnections, trade, and higher learning. Central to all aspects of life and culture was the waterways and continuum of knowledges within the eel Songline. Today Macquarie Park is a productive part of the local, regional and national economy and a home to employees, students and the wider North Ryde community.

Its evolution over time has brought notable challenges and constraints which have shaped how the area operates for these people currently from the challenges of moving around and between places to the significant strengths of creative businesses and leading universities. These are illustrated opposite.

Now, as further evolution in how people congregate, connect, move and work in their communities continues, these constraints must be resolved and rebalanced by learning from the past. Wallumattagal knowledges which have nurtured and sustained Ngurra and its communities for thousands of years are enabling a holistic and integrated masterplan for the future.

Waterways central to Wallumattagal Ngurra



Proximity to the Lane Cove National Park and Dharug Traditional Custodians - the knowledge keepers of Ngurra



Vibrant Macquarie University and student population



Established anchor businesses



Metro station upgrades and increased connectivity



Private sector engagement



A high performing commercial centre



ASSETS OF PLACE



Disconnection from Country and subsequent environmental issues



Historic reliance on private vehicles



Lack of ‘sense of place’, connection to Country and community



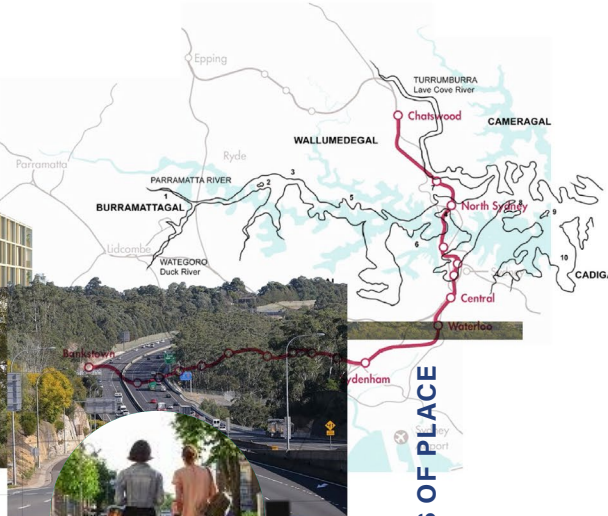
Other centres with greater amenity and access to Indigenous and non-Indigenous culture



Trends in working and employment accelerated by COVID-19



Adverse impacts of climate change



Poor walkability and lack of active transport links

CHALLENGES OF PLACE

COUNTRY CENTERED DESIGN

Country Centered Design goes deeper than human-centric design approaches to ensure the broader needs of the environment, its interconnected systems and the humans who inhabit it are all equitably balanced and represented.

Country Centered Design is a methodology designed by Old Ways, New based on Indigenous precepts of *Caring for Country, Caring for Kin*. Old Ways, New has developed Country Centered Design as a methodology that foregrounds cultural leadership, and both personal and collective accountability within the design process.

The manifestation of Country Centered Design derives from a respect for the custodial care of Traditional Knowledges within communities. This is integral for safe, respectful sharing of Traditional Knowledges for contemporary contexts and cross-cultural interpretations.

A Country Centered Design approach safeguards a project from any reductionist processes and decision making that are based on self interest, short term gain and isolated impact. It uses protocols, rights, rituals and customs based on Caring for Country, Caring for Kin, to embrace the story of the Country we are all part of and create shared intentions, purpose and meaning. It breaks down knowledge silos and individualism beyond the Eurocentric notion of ‘flourishing of humanity’, engaging a philosophy and practice of interconnection and interrelatedness by nurturing Country.

This methodology is driven by four pillars that are fundamental parts of the process and linked together in a iterative process: Culture, Research, Strategy and Technology. In essence, Country Centered Design enables us to reveal the deep cultural knowledges within Country and recontextualize into contemporary frameworks with an implementable outcome – delivering, places, services and experiences that, embody a connection Country and a pathway to care for its future needs.

For Indigenous peoples, Country is an entity encompassing all living systems and their interdependent relationship and interconnection to each other. Reciprocal relationships between sky, land, sea, people, plants and animals are sustained by the environment and cultural knowledge.

Pivotal to the success of this methodology is the working, relationships with Traditional Custodians, knowledge holders and community members. Country Centered Design is an integral part of the Masterplan, interwoven just like the tributaries of the Lane Cove and Parramatta Rivers.

INDIGENOUS WORLD VIEW



WESTERN WORLD VIEW



Diagram adapted from Steffen Lehmann, Eco v Ego diagram, 2010.

ALIGNMENT WITH CONNECTING WITH COUNTRY

The publication of the draft Connecting with Country by the GANSW is a transformative first step towards embedding Country in all projects. Old Ways, New has utilized its proprietary Country Centered Design methodology for this report and through that, we have addressed the critical elements of Connecting with Country to achieve a similar outcome which is to foreground Country and our relationship to it as a driving force behind conceptualization, design and maintenance.

Contrary to some Western methodologies, Country Centered Design prioritizes the central role of Country, as opposed to humans or reduced user groups: we enable a relationship with Country to emerge relevant to the scale and scope of each project. This relationship with Country and custodians then determines the cultural practices, knowledges, protocols, dreamings and didactic nature of Country to shape key concepts for the contemporary context. This in turn helps us develop the most appropriate assets for differing project needs.

We preface this work by stating that Country Centered Design is a methodology that is and must be – without exception– led by Indigenous people themselves. The manifestation of Country Centered Design derives from a custodial care of knowledges within Indigenous communities, inherent to safe, respectful sharing of Traditional Knowledges for contemporary contexts and cross-cultural access and interpretations.

These are foundational ways of seeing, being and knowing in Indigenous culture that describe the custodial responsibility and stewardship of all human and non human life. These precepts are didactic, active, and at the same time, complex and deep Traditional Knowledges and must be appreciated for what they are and not appropriated or reduced. It is our responsibility to ensure that we translate these knowledges into the contemporary context of the built environment mindfully to minimize a reduction of their complexity from the deeper context from which they originated. The intellectual property that results from this work is protected by the UN’s Free Prior and Informed Consent (FPIC).

PROTOCOLS OF NGURRA

The biggest challenge of Country Centered design is to resolve the tension between the Indigenous and Western world view. Our challenge for this masterplan is to create a ‘cultural bridge’ between these worldviews, enabling the gap to be negotiated productively in a way that acknowledges differences but allow both worldviews to be relevant and applicable to the contemporary context.

From a cultural foundation perspective, these cultures fundamentally think differently about how and what they know. This means they have very different ways of organizing and communicating information.

Country Centered Design facilitates the enquiry into the original protocols for Wallumattagal Country – the old ways/ Lore, rites, rituals and cultural practices which guides engagement with Wallumattagal Ngurrangra (places) and Dharug Ngurra (Country). Through working with Traditional Custodians who have intimate knowledge, relationships and connection with Ngurra, we developed protocols of Ngurra which have embedded the agency of place in the design of the masterplan.

We don’t want to just create references to traditional protocols, we want to make sure they live on Country as contemporary protocols of place, embodied into the fabric and functioning of place.

Working with Wallumattagal and Dharug Custodians, and in partnership with Arup and the broader masterplanning design team, we have developed the following Contemporary Protocols for Ngurra:

1. Prioritizing Ngurra
2. Learning from Ngurra
3. Working with Ngurra
4. Translating Ngurra
5. Caretaking for Ngurra

CONSULTATION AND ENGAGEMENT

City of Ryde Council, the Department and the Greater Sydney Commission have been in extensive discussions with stakeholders on the future of the Macquarie Park corridor since 2016, as detailed in the following section.

Ongoing consultation is an essential component of the masterplanning process. The feedback and discussions with stakeholders continue to inform the development of the masterplanning process to ensure the future development of the area reflects the desired sense of place and desired by the local community, workers and business.

Much of what we have heard reflects on the strengths of Macquarie Park - its metro connectivity, the university and technology hub and the natural assets of Lane Cove National Park close by. However we also understand there are some challenges which must be addressed including walkability and a sense of place which supports its role as hub of innovation.

There are some incredibly successful stories from this place and its deep history, alongside the clear and present need to identify and address the challenges and future expectations of people, place, connectivity and respect for Country, in order for it to adapt and evolve in the future. The adjacent snapshots are taken from engagement with the community carried out between 2018 and 2020 and the outcomes of visioning exercises to imagine the possible future community of Macquarie Park.

Our engagement process has prioritised Wallumattagal Custodians first who have lived in and been caretakers in the Macquarie Park and North Ryde area for generations, and emanating out to Custodians from the broader Dharug Ngurra. We have also looked to engage Custodians with specialist expertise - such as through National Parks and Wildlife - and with a particular existing investment in this place - such as Indigenous staff at Macquarie University.

Our engagement process has involved a mapping of relevant:

- Traditional Custodians - Wallumattagal clan first, then Dharug Ngurra more broadly
- Indigenous specialists
- Indigenous businesses within Macquarie Park
- Indigenous staff within mainstream businesses in Macquarie Park

The table on the right lists out the engagement events that have taken place over the course of the masterplanning process.

ENGAGEMENT ACTIVITIES IN MACQUARIE PARK	
2016	Landowner briefing
2016	Online survey
2016 and 2017	Destination innovation event poll
2016	Employee focus group
2016	Draft District Plans submissions
2016	Night time economy survey and online collaborative mapping
2016	City of Ryde Integrated Transport Strategy 2016-2026
2017	Landowner workshop and information session
2017	Interviews
2017	City of Ryde Sport and Recreation Strategy 2016-2026
2017	Macquarie Park Innovation District round table
2017	Macquarie Park Strategic Investigation
2017	City of Ryde Community Strategic Plan 2018-2028
2018	City of Ryde Youth Strategy 2018-2022
2019	Social Plan & Creativity Strategy online survey
2019	Arts & Culture Strategy online survey
2019	Macquarie Park Marketing Plan
2019	Creativity Strategy 2019-2024
2019	Ryde Library Strategic Plan 2019-2024
2019	Community swing-by sessions, online survey, hard copy survey, telephone survey, key stakeholder workshops, posters, post cards, social media, website and newsletter for LSPS
2019-2020	Draft Halls and Facilities Strategy 2019-2041
2019-2020	Draft Social and Cultural Infrastructure Framework 2019-2041
2020	Ryde Resilience Plan 2030
2020	City of Ryde Local Strategic Planning Statement
2020	Landowner briefing
2020	Landowner and community consultation on growth pathways

VOICES OF MACQUARIE PARK NOW AND TO THE FUTURE



Richard (58)

I work here, I don't live around here, but I think this park is fantastic. I can get out in the middle of the day, to get away from work. I know I can cycle here, it's nice and safe. There are not too many cars. I can cycle for 40 minutes straight without stopping. It's a beautiful environment, trees, plenty of animals around. It's lovely."



Varant (27)

"...being close to a university it's kind of inspirational . Even being part of small conversation between students and staff, you get a kind of vibe on how they interact with each other and how they interact with the system and it all helps."



Vinny (32)

"It's quite nice. The Council is good. It's starting to develop a lot, like they started to build apartments and living areas here. So quite convenient. A lot of office people here. It brings up some builders, some workers from construction. So quite good business."



Hans (42)

"I still live in Epping with my family but the Metro has really helped; I used to travel by car but now it's easier. I train in the gym at Macquarie Uni and have learnt about plant succulents at the community centre. My friends and I will often head out for dinner after - there is a great bar in the old office building near the station."



Gavin (60)

"We are implementing hydrogen in our motor vehicles and have the only refilling station in Australia. With the introduction of hotels, restaurants, parkland, residential and schools it's going to become like a community."



Carolyn (39)

"I was interested in new innovation hubs around Sydney to invest in new technologies and Macquarie Park is a well-organised precinct with a solid established leadership that was there from the beginning to share the venture."



Melina (21)

"I come to Lane Cove Park every month, its landscape is the perfect environment to isolate from the fuzzy urban life. I have always loved to go trekking and with the new metro, having the park next door makes it much more convenient for me."



Nareena (28)

"We've just rented a place here, we have a great view of Shrimptons Creek, I work in the CBD, but its not too far to walk to the station and I'm in the city quickly. My husband works locally and our daughter has just got a place at the school in Ivanhoe which means she'll be able to walk to school now and we can sell the car..!"

THE PROCESS

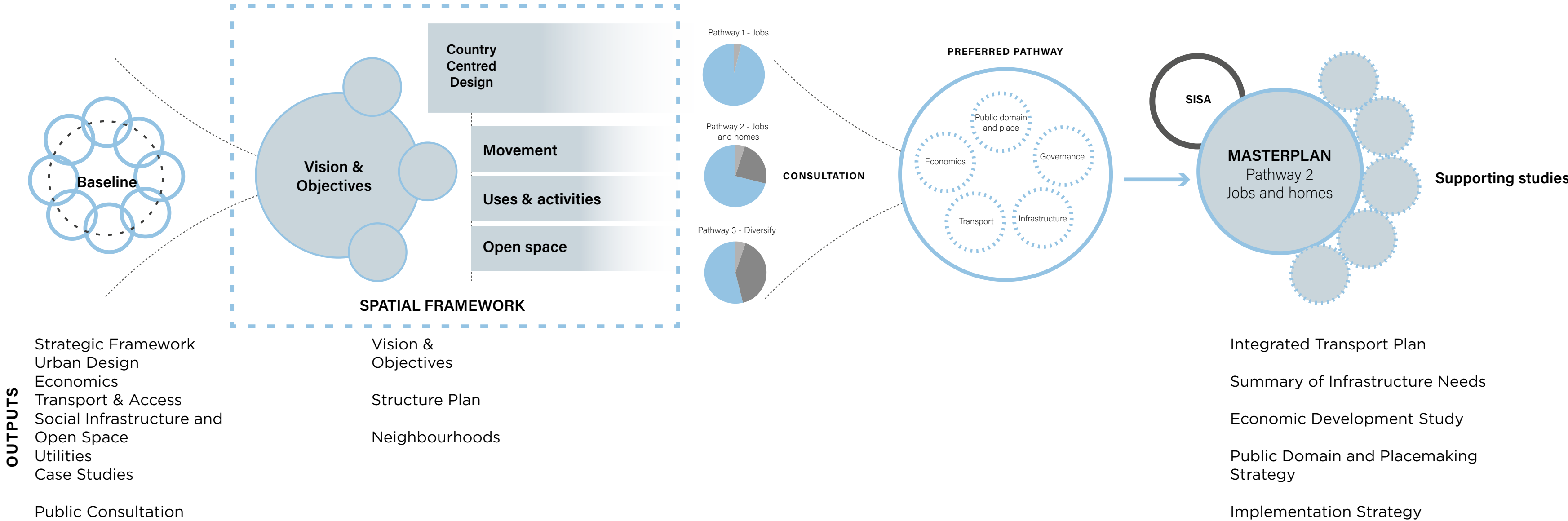
The Strategic Masterplan is an outcome of a multi-layered process that brings together a vast strategic policy context, engagement and consultation with the community and stakeholders and baseline studies.

The Baseline of the Masterplan has fed into the development of the overarching Spatial Framework for the Masterplan. The Vision, Objectives, Framework Layers and Country Centred Design have guided the development of the Masterplan and its supporting strategies, and will guide its implementation.

The Spatial Framework formed the basis for the three Growth Pathways - three different land use scenarios for Macquarie Park in the future. These three pathways differed from one another in terms of uses, but ultimately could achieve the vision and objectives set out in the beginning of the process. Consultation was undertaken to determine the most appropriate path forward for Macquarie Park.

Aside from the selection of the appropriate pathway, the role of city- and place-making infrastructure in fully realising the benefits of this significant investment was recognised. The GSC has delivered a draft Strategic Infrastructure and Services Assessment (SISA) together with the Masterplan. The SISA fosters transparency about the range of infrastructure and services needed, the costs to deliver this and who should fund it. It will be delivered in conjunction with over 15 project partners.

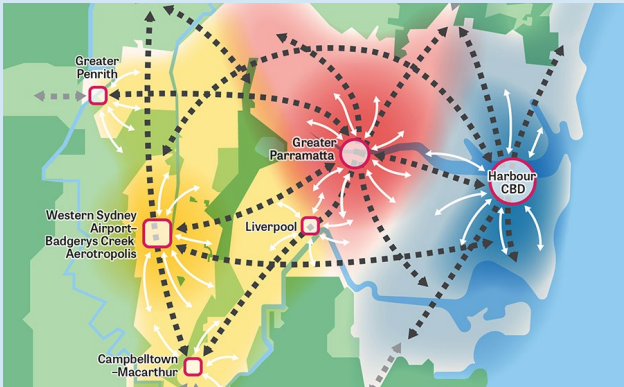
The Masterplan will establish the framework to guide future development and infrastructure investment decisions in Macquarie Park over the next 20 years.



2. CONTEXT & ANALYSIS

STRATEGIC CONTEXT

The Strategic Masterplan has been informed by a complex strategic policy context. Aside from the ones summaries below, the Masterplan has also been informed by other policy frameworks including Designing with Country, and the Practioner’s Guide to Movement and Place.

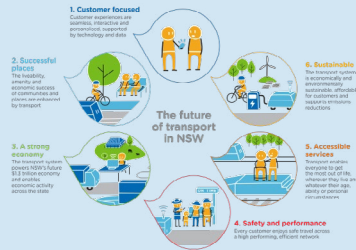


THE GREATER SYDNEY REGION PLAN - A METROPOLIS OF THREE CITIES

The Greater Sydney Region Plan, A Metropolis of Three Cities, is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places.

Macquarie Park is located within the North District and the Eastern Harbour City and forms part of the Eastern Economic Corridor. The Eastern Economic Corridor between Macquarie Park and Sydney Airport is recognised as NSW’s greatest economic asset with strong financial, business, professional services and innovation start up sectors.

The Plan acknowledges that there are many opportunities to enhance the Eastern Harbour City including improving connectivity and supporting continued growth in global industries and strengthening economic links to between Macquarie Park and Greater Parramatta.



FUTURE TRANSPORT STRATEGY 2056

Future Transport 2056 sets the 40 year vision, directions and outcomes framework for mobility in NSW. In conjunction with the Greater Sydney Region Plan and the State Infrastructure Strategy, Future Transport 2056 strategy provides an integrated transport vision for the state.

Initiatives listed in 0–10 horizon will be prioritised for more detailed investigation to determine if they are required in the next decade. Infrastructure initiatives for Macquarie Park include the Macquarie University Bus Interchange, precinct improvements in collaboration with the Commonwealth, and the east-west public transport connection from Mona Vale to Macquarie Park. Broader state level initiatives applicable for investigation in Macquarie Park include upgrades to cycle and pedestrian infrastructure, local walking connections and bus improvements through the Bus Priority Infrastructure Program.

Visionary initiatives are those that will be investigated in the longer-term to support the transport and land use vision for Greater Sydney in 2056. For Macquarie Park, this includes investigating the Macquarie Park to South East Sydney Mass train/transit link, which will be an important link between the North and South Districts for the Eastern Harbour City and Sydney Olympic Park. It will transform the metropolitan rail network by facilitating transfers outside of the Sydney CBD, through multiple interchange opportunities with existing east-west rail lines.

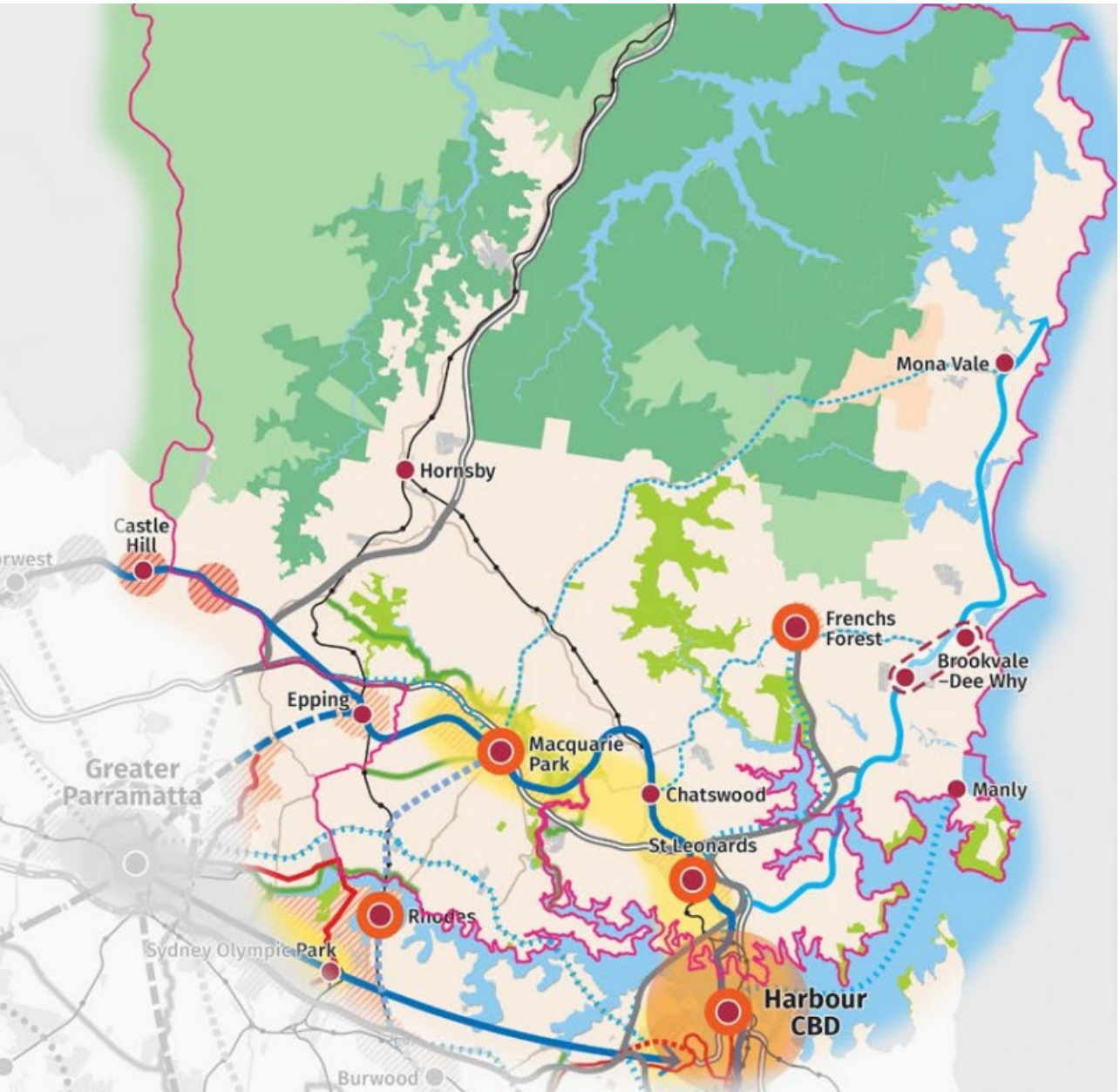
OUR GREATER SYDNEY 2056 North District Plan – connecting communities



NORTH DISTRICT PLAN

The North District Plan sets the strategic priorities for Macquarie Park. The strategic investigation is guided by the following actions for Macquarie Park:

- enable additional capacity for commercial floor space and maintain a commercial core;
- improve urban amenity including reducing the impact of vehicle movements on pedestrian and cyclist accessibility;
- deliver a finer grain road network to enhance pedestrian connections and provide new access points;
- promote design excellence in urban design by upgrading public areas;
- deliver an innovation ecosystem in Macquarie Park, capitalising on the relationship with Macquarie University and nearby high-tech and medical corporations; and
- improve public transport connections to Parramatta and the District’s other strategic centres, including the Northern Beaches Hospital.



STRATEGIC CONTEXT



NSW 2040 ECONOMIC BLUEPRINT

The Economic Blueprint identifies challenges and risks and highlights major opportunities for the NSW Government to grow industries, innovate and improve the economy. The report outlines key aspirations for NSW to reach by 2040:

1. The nation's first trillion-dollar economy
2. Healthy, productive people
3. Liveable and connected cities
4. Productive, vibrant regions
5. Innovative and world class businesses
6. A sustainable environment with reliable and affordable energy
7. Enhanced performance of government



CITY OF RYDE COUNCIL LOCAL STRATEGIC PLANNING STATEMENT

The Local Strategic Planning Statement (LSPS) set out a 20-year vision for the City of Ryde Council, including planning priorities and actions. The vision is: ***"A liveable, prosperous and connected city, that provides for our future needs while protecting nature and our history. A city with diverse and vibrant centres, our neighbourhoods reflect and service our residents and businesses. Our well-planning places enhance the health, wellbeing and resilience of our future community. They also foster innovation, equity, inclusion and resilience."***

The LSPS envisions the Macquarie Park Corridor as a globally competitive, vibrant and accessible CBD. It is the northern anchor of Greater Sydney's Eastern Economic Corridor. In 2018, Macquarie Park contributed \$9.5 billion to the NSW economy. The LSPS identified key planning priorities that will support Macquarie Park's role as a major economic centre, and support the fulfilment of its vision:

- Develop Macquarie Park as a health and education strategic centre focused on North Ryde Station, Macquarie Park Station, Macquarie University Station and Cox's Road;
 - Ensure the economic vitality of the Macquarie Park Health and Education Strategic Centre and retain the precinct's strong economic base as shown by its contribution to Australia's GDP;
 - Ensure liveability in Macquarie Park through an attractive, vibrant, sustainable and well-designed environment;
 - Create a sense of place and promote community identity;
 - Create a public domain within Macquarie Park that brings people together;
 - Continue to develop Macquarie Park into a sustainable centre that is connected to Ryde's neighbourhoods, is serviced by safe, affordable, flexible public transport, minimises traffic and parking impacts and utilises changing technologies; and
 - Promote and encourage a more walkable environment within Macquarie Park.
- The LSPS has key targets for Macquarie Park, including:
- A 60/40 private vehicle/active and public transport modal split of total journeys to and from work;
 - Deliver the Fine Grain Road Network (FGRN);
 - Increase the amount of active public open space and social and cultural space; and
 - Prepare an Infrastructure Strategy.

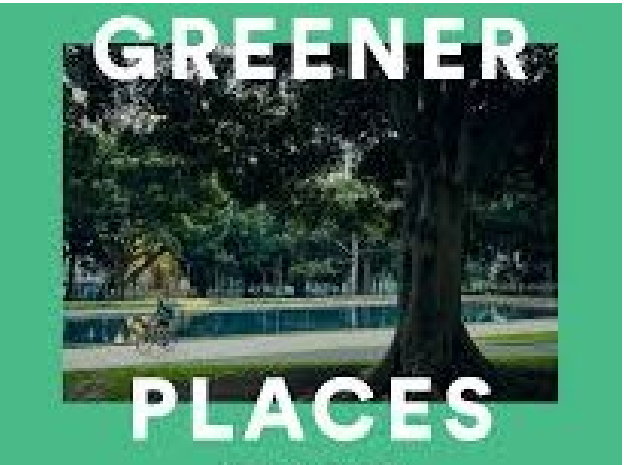


BETTER PLACED

Better Placed is an integrated design policy for the built environment of NSW. It seeks to capture our collective aspiration and expectations for the places where we work, live and play. It sets out a clear approach to defining a well-designed built environment, and seven objectives for good design.

A well-designed built environment is healthy, responsive, integrated, equitable and resilient. The seven objectives for good design are:

1. Better fit;
2. Better performance;
3. Better for community;
4. Better for people;
5. Better working;
6. Better value; and
7. Better look and feel.



GREENER PLACES

Greener Places is a design framework for urban green infrastructure. It seeks to create a healthier, more liveable and sustainable urban environment by improving community access to recreation and exercise, supporting walking and cycling connections, and improving the resilience of our urban areas.

Well-designed green infrastructure responds to four key principles:

1. Integration - combine green infrastructure with urban development and grey infrastructure;
2. Connectivity - create an interconnected network of open space;
3. Multifunctionality - deliver multiple ecosystem services simultaneously; and
4. Participation - involve stakeholders in development and implementation.



NSW PREMIER'S PRIORITIES

The NSW Premier's Priorities represent a commitment to making a significant difference to enhance the quality of life of the people of NSW. Two of the Priorities have shaped the strategic context of this Masterplan: ***Greener public spaces*** and ***Greening our city***.

Greener public spaces aims to increase the proportion of homes in urban areas within 10-minutes walk of quality green, open and public space by 10% by 2023. ***Greening our city*** aims to increase the tree canopy and green cover across Greater Sydney by planting 1 million trees by 2022.

CURRENT CONTEXT

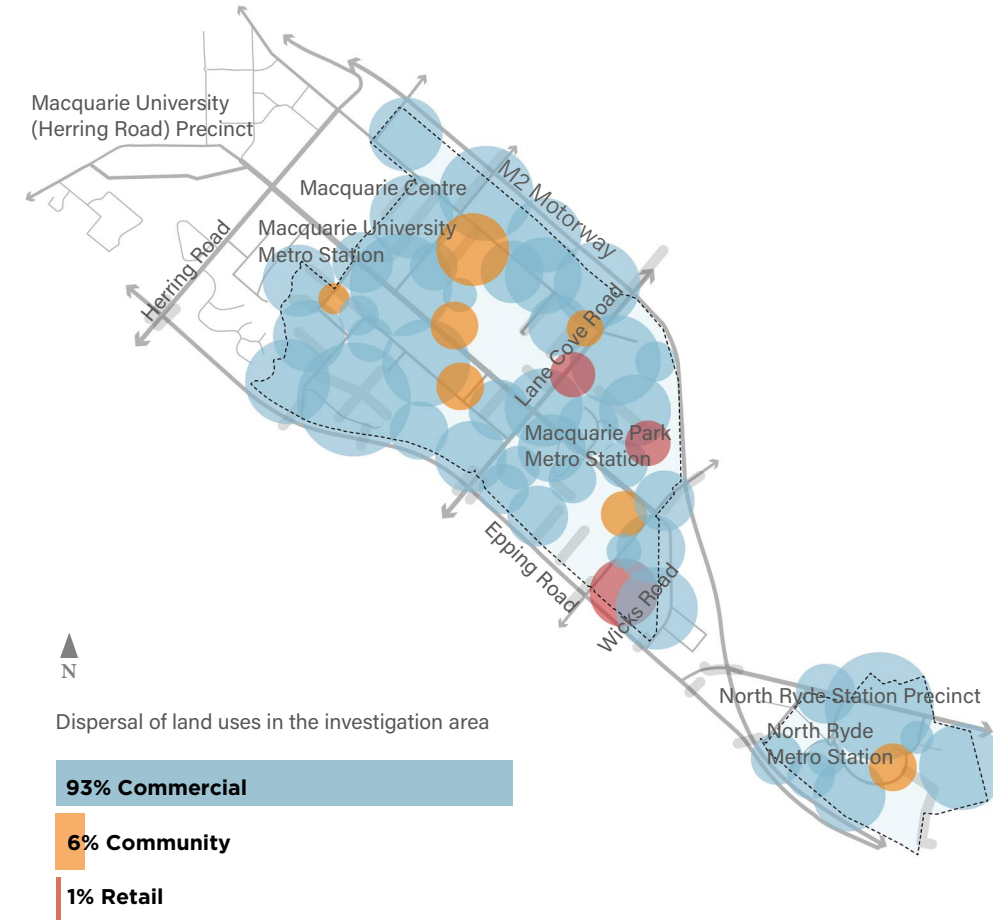
Macquarie Park is an important economic centre for Ryde, NSW and Australia. The area has a distinct campus-type built form. This character is beginning to evolve to adapt to the changing needs of the community. The arrival of Sydney Metro, a finer grain of streets and transformation of the adjoining Macquarie University (Herring Road) and North Ryde Station Urban Activation Precincts will all contribute to the future character of Macquarie Park. The whole area is undergoing a significant transformation, however the place itself is currently suffering from poor amenity, which is reflected in the disconnection from culture and Ngurra.

Existing Macquarie Park and context land uses features are:

- Limited access to open space
- A consolidated commercial use
- Residential areas surrounding MPSIA
- Relative severance to the Riverside Corporate Park
- University spaces within Park

The current built form characteristics of Macquarie Park are:

- Campus-style plots with significant surface level car park
- Light industrial units
- Recently redeveloped built form which delivers street edge
- Little permeability throughout
- Pockets of high-quality planting and canopy
- Mix of architectural styles



Current Quality of Place

Campus style development provides internal amenity, often inaccessible to the wider community



Current Quality of Movement

Large block forms and wide roads with long signal times create poor conditions for pedestrians and cyclists



Current Business Community

Shortage of SMEs, start up and incubation spaces and a lack of diversity in floor plate sizes and tenures



CURRENT CONTEXT

OPEN SPACE, LAND USE, MOVEMENT NETWORK

The Lane Cove National Park fringes the northeastern bounds of the park, with the Shrimptons Creek running north-south through the site.

Macquarie University campus provides extensive urban landscape settings, together with smaller scale squares and plazas mainly along the Waterloo Road corridor.

To the west, the park connects to adjacent open spaces through Shrimptons Creek, and other amenities around North Ryde.

To the south, Macquarie Park Cemetery offers an iconic open space, and the Lane Cove River defines the southern boundary of the park.

- Primary Open Space
- Active Recreation
- Passive Recreation
- University Campus
- Flood Zones
- District Open Space
- Regional Open Space
- Neighbourhood Open Space
- Cemetery
- Lane Cove National Park
- Waterbody



Existing Open Space Network

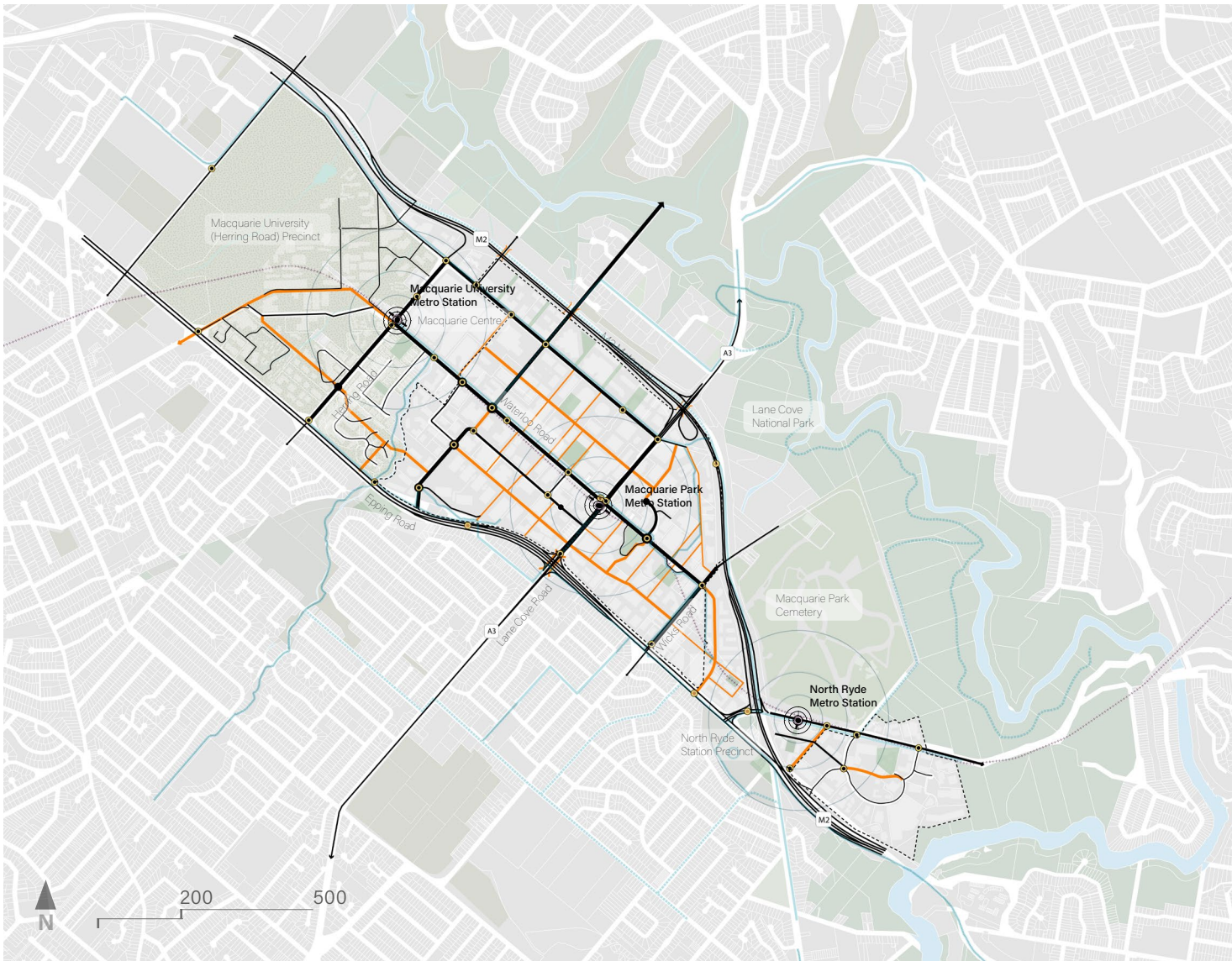
The current Movement Network in the park counts with significant transport infrastructure and arterial links.

Running along the east and west sides of the park, M2 motorway and Epping Road are the main regional access routes.

Waterloo Road is the main structural movement link, working as a transport corridor for the park.

Lane Cove Road connects the park to Lane Cove National Park and intersecting with Waterloo Road, consolidates a transport hub around Macquarie Park Metro Station.

- Private Transport
 - Existing roads
 - Highways
 - Proposed routes
 - Roundabout
 - Bridge
- Public Transport
 - Rail Alignment
 - Metro Station
- Active Transport
 - Off-road shared path
 - On-road shared path
 - Informal on-road bike path
 - Pedestrian Crossing
 - Grade Separated Crossing



Existing Movement Network

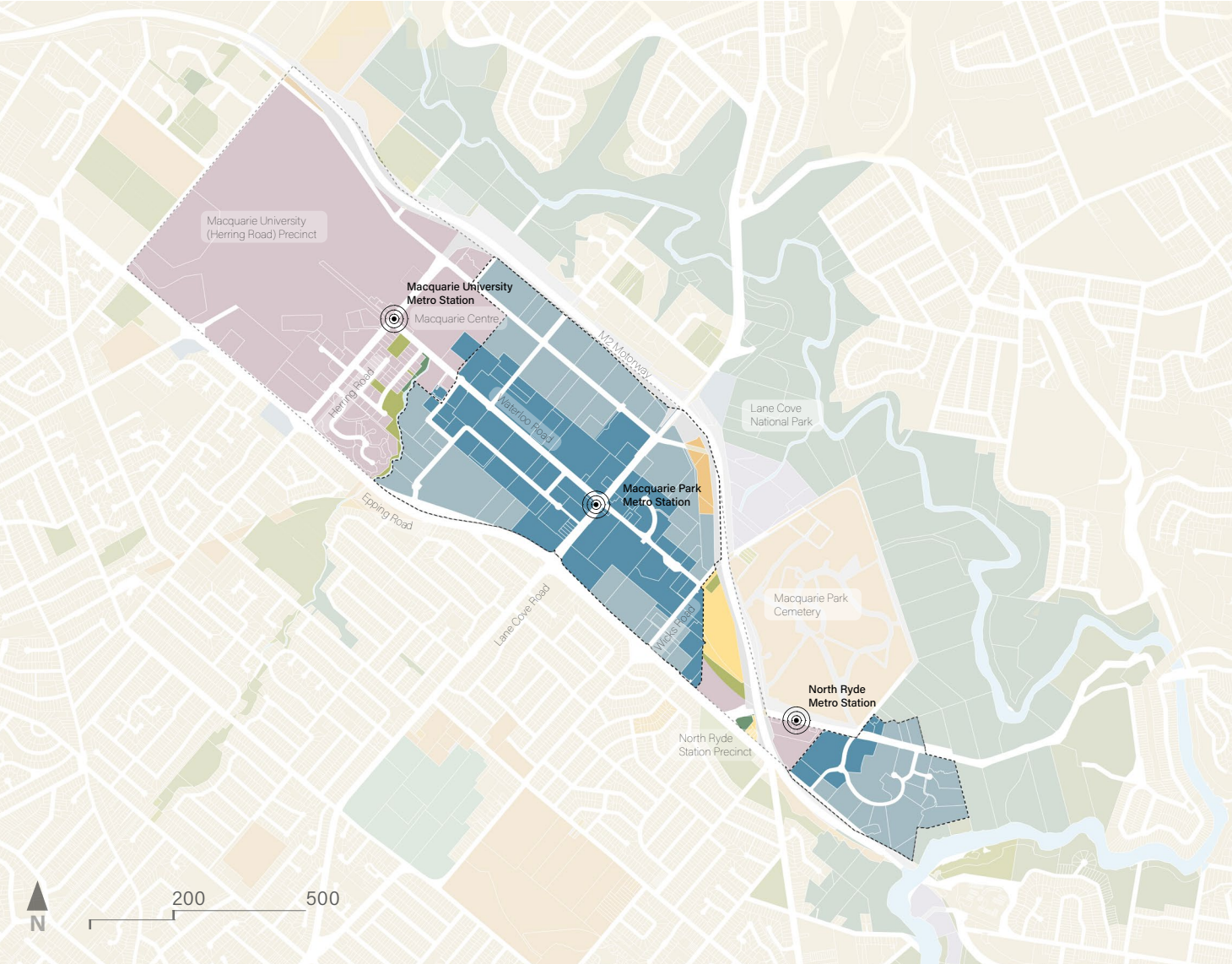
The current Land Use in the park considers a strong commercial core, with more diverse uses towards the north and south.

From the north, Macquarie University and Macquarie Shopping Centre define the educational and retail uses.

Along Waterloo Road, the uses are mostly commercial with sporadic shops and ancillaries.

Around Shrimptons Creek and to the south, more residential uses are found around North Ryde Metro Station.

- Mixed Use
- Commercial Core
- Business Park
- Social Infrastructure
- Special Activities
- Light Industrial
- Residential
- Environmental Conservation
- Public Recreation
- Private Recreation
- National Park
- Waterbody
- Metro Station



Existing Land Use



URBAN ACTIVATION PRECINCTS

Macquarie Park is a health and education precinct and an economic powerhouse. The NSW Department of Planning, Industry and Environment, in collaboration with the City of Ryde Council, the Greater Sydney Commission, the Ministry of Health, the NSW Department of Education and Transport for NSW to strengthen Macquarie Park.

The area as a whole is changing significantly. The strategic investigation area sits within the Corridor and covers approximately 170 hectares and includes land between Macquarie Centre and Ivanhoe Estate (Herring Road Precinct) to Lachlans Line and Riverside Corporate Park (North Ryde Station Precinct). These key centres are also undergoing significant transformations as part of the Urban Activation Precinct (UAP) Programme. UAPs aim to deliver more homes in places with access to infrastructure, transport, services and jobs.



NORTH RYDE STATION PRECINCT

The North Ryde Station Precinct is a 12.5ha site located south of the Investigation Area. The Precinct aims to provide new homes and jobs, new parks and public plazas, walking and cycling links and community facilities with direct access to North Ryde Metro Station. The Precinct is comprised of:

- more than 2.4ha of parks and open space, approximately 20% of the entire precinct;
- more jobs and homes within a 10-minute walk of North Ryde Metro station;
- A new pedestrian and cyclist bridge over Delhi Road; and
- New community facilities and public spaces; and
- Regional road upgrades, which include Delhi Road, Wicks Road, Epping Road and Waterloo Road.

Landcom has delivered a new masterplanned community within the Precinct called Lachlan's Line. Lachlan's Line is comprised of more than 2,700 apartments, retail, open space, pedestrian and cycle links and will be home to 5,000 residents. Lachlan's Line will also have allocated Affordable Housing for very low, low and moderate income earners.



MACQUARIE UNIVERSITY STATION (HERRING ROAD) PRECINCT

The Macquarie University Station Precinct (also known as Herring Road Precinct) will be transformed into a vibrant, connected and walkable community hub that will build upon its existing business, retail and educational success. The Herring Road Precinct also intersects with Shrimptons Creek, a key biodiversity corridor for the area. When completed, the Precinct will provide:

- Four new parks;
- Upgrades to the existing Macquarie University Bus Interchange;
- A new mixed-use 'academic core' at Macquarie University to closely integrate academic and research activities with business and industry on campus; and
- New homes and urban renewal within an 800m radius of the Macquarie University Metro Station.

The NSW Land and Housing Corporation (LAHC), together with Frasers Property Australia and Mission Australia Housing, are working to transform the former Ivanhoe Estate at the corner of Herring Road and Epping Road. When completed, the former social housing estate will deliver approximately 3,300 new homes, 6,000 sqm of new open space and will retain and protect the existing ecological community along Epping Road and the Shrimptons Creek ecological corridor. The site will include approximately 950 social housing units and 128 affordable rental homes.



WORKING TOGETHER AS ONE

The area has retained an image as a sprawling business park, and will need to adapt to suit the changing expectations of local office workers and surrounding communities. These expectations include more places to meet, parks, more lifestyle attractions, retail and entertainment.

Ensuring the liveability, amenity and economic vitality of Macquarie Park requires a whole-of-place approach. While each precinct has their distinct place character and function, the three must work together in order to achieve a successful transition from a suburban business park to a thriving, vibrant and accessible urban centre.

THE STORY OF WALLUMATTAGAL NGURRA

“Wallumatta is the place of the Snapper fish (Wallumai) and the Wallumattagal are the people of the Snapper. Wallumatta Ngurrunga (this area) involves the Songlines, cultural practices, knowledges, stories, agency, law/Lore and Dreaming: the lands, waters, skies, stars, bio-diversities, and ecologies associated with Wallumatta.

Wallumatta sits within the Dreaming of the Dharug-speaking peoples, the Traditional Custodians of Dharug Ngurra: the lands, waters, skies, stars across what is the majority of what’s today called the Sydney Basin. Dharug Ngurra’s Dreaming resides and is interwoven with all Aboriginal peoples’ Dreaming.

The story of Wallumatta, involves the meeting of the waters, Moocooboola (Hunters Hill). Around ten thousand years ago the ice melted, and with that from a river grew our Sydney Harbour. The meeting of the waters entwines the harbour on our foreshore. On the morning side (Burbigal), the boundary is today called the Lane Cove River. On the evening side (Waragal), the boundary is today called the Parramatta River. Between these waters the Wallumattagal lived, belonged, raised their children and cared for Ngurra for tens of thousands of years. Kuradgi, our Spirit Men and healers would gather here. Our women sustained their families through fishing, harvesting plant produce for health and medicine, providing warmth with bukari (possum) and kangaroo skins. From birth, our children were raised to know their place, their connections, their belonging and the spiritual wisdom of their Ancestors.

Our men sustained their families through hunting, crafting the nawi (canoe), the boomerangs, the shields, the spears, the axes, the fires and the shelters. Our life journeys were mapped on our possum/kangaroo skins and at death some were wrapped in these to return to Ngurra. Our presence was marked on our rock shelters, our art decorated our productions and Ngurra was sustained by us through cool-fire burning practices and other ways of caring. In return, Ngurra cares for us and our sense of belonging is grown by Ngurra. We are grown up by Ngurra and our connections to presences, places and practices.

Our neighbours include the Gameraygal, (early morning side) and Durrumburra/Turrumburra (late morning side). Burramatta further along the Parramatta river (early evening side). Wangal across the river (evening side). The waters were shared. The Nawi (canoes) enabled our movement along the waterways and the fires within them enabled the cooking of the fish, oysters, molluscs and other seafood that abounded. Our kitchens lined the shores, and thousands of years of shells, the middens, mark our community and sharing our meals. Our paths were seen as a web of gentle lines weaving across the landscape, not far from water sources and our places of corroboree, dance, gathering.

Our rivers are born from the Dreaming, with the eel Songline showing the continuum of our knowledges, through the weaving of the waterways, where the salt and freshwaters meet. Burramatta and the river are the places where the eels lie down. As adults they entwine with the creation place, where the eels create their new life. There they rest, fattening up before making their long, long journey for thousands of kilometres, to the warm tropical waters of the Coral Sea and as far away as towards Vanuatu. There in those lush warm waters they spawn their babies, the tiny glass eels and there the adults stay. From there, the baby glass eels begin their life journey back to their place of belonging. In our case, we remember the Burramatta and the cycle of millennium continues.

Since settler-colonization, it is felt much has been lost and since the smallpox entered the area, many Wallumattagal, and more broadly Dharug people died. With the deaths and disrespect came dispossession. Remnant Dharug were forced into other clan’s areas, and small groups. Dharug peoples were forbidden to speak language, robbed of our right to fish, hunt, and tend our food supplies, and over time forbidden to care for Ngurra. Our Ancestors lost much of their agency, as British military and government overtook the places and cultural practices. Some colonists cared. One of the First Fleet, James Squires, cared for Bennelong, Nanberry, Boorong and Bidgee Bidgee. It is said they are all buried on his land grant on Wallumattagal Ngurrunga, now called Putney. Together they are remembered as the continuing voices of belonging.

Beneath the concrete and bitumen that layer our Dreaming tracks, places of significance, presences and cultural practices. And Ngurra continues throughout the universal cycles, seasons; in the landforms, its contours, the waterways and, where allowed, through the animals, plants, trees and our interconnected ecological systems.”

SONGLINES

Songlines are an ancient memory code that trace the journeys of ancestral spirits as they created the land, animals and lore. They are navigational tracks, deeply tied to the landscape and providing knowledge, cultural values and wisdom to Indigenous people.

Songlines are landmarks, helping to identify locations, sites, flora and fauna. They play a key role in establishing sacred sites and are pivotal to stories shared amongst kin via language, song, dance, painting and ceremony.

The Eel songline in Wallumattagal Ngurra signifies tracks and paths that create connectivity through Ngurra and has been integrated into different parts of the Masterplan.

CONSTELLATIONS

Aboriginal people are the world’s oldest astronomers, developing a number of practical ways to observe the Sun, Moon and stars. Constellations play a key role in informing navigation, calendars and predicting weather, with meaning and agency attributed to different astronomical phenomena.

Culture, tradition and mythology also include elements of the stars, with knowledge passed down amongst kin and shared in language, ceremony and artwork. Constellations have traditional names based on their shape and form.

The Seven Sisters Constellation is a universal and transcontinental story that has shaped the development of Macquarie Park’s future places.

TRADITIONAL TRAVEL ROUTES

Water movement on Wallumattagal Country flows from pebble-based creek beds, through sandstone cliff edges and beyond the estuary sandy places, into the Sydney Harbour, before reaching the ocean. Peoples movement on our rivers involved nawira – canoes. (Nawi is an important transport symbol of our people).

Longer land movement followed the ridgelines. However, smaller connecting tracks went down to the river and up the other side of the valleys. (for example: Victoria Road would have been a major east-west track, whereas tracks such as Delhi Road would have gone down from the ridge, across the river and up to the next major ridgeline, e.g. we know as Pacific Highway).

The main tracks were followed and main roads created upon them. Walking tracks would have been located proximate to freshwater sources thus the upper reaches of rivers and creek lines would have held tracks attached to the ridgelines.



EEL DREAMING

Along the western boundary of the Wallumattagal clan area flows the Parramatta River, carrying the Eel Dreaming Songline. Below is Wagtail's rendition of the Eel Dreaming storying of the Parramatta River, where the saltwaters and freshwaters meet.

“When you start looking at the life, so Parramatta is just one place, and we know that from the name the – Burramatta place [‘Parramatta’ is a corruption of the Dharug language where burra is ‘eel’ and ‘matta’ is place] where the eels lie down, place where the saltwater and freshwater come together, and it’s a place where, when the eels are fat and ready to move out to sea – which I think happens in November – with the rains, they head up, all the way, they come out of the estuaries, and they head up the coast all the way up to the Coral Sea. This goes for the whole of the eastern landscape, the sea coast, all those eels, way up the eastern seaboard, so they travel up when they are mature to the Gulf, and they have their babies, and then they die there, then the babies all return home, and they come back to the same [place], wherever their parents came from they come back to that place, to the same creek, to home.

It is a story of transformation, because the mature eel changes in shape, gathering at Parramatta and it was the place where all the clans and different tribal groups would meet and hold ceremony. They knew that was the time when the eels were the fattest, they were built up ready to go on a long ocean journey, and so their anuses would seal shut, their eyes would become bigger, they would carry lots of body fat so they could feed themselves to make the journey and off they’d go, which is just an incredible story. And then after they’d had their babies of course these babies would come back. They’re called glass eels ’cause they are actually tiny transparent things, thousands and thousands of them heading down the coast, and they’re all coming at the same time, heading up the creeks and once they hit the freshwater, they then transform from being the glass eel, transparent glass eel, into the color of the river, they become the colors of the water. So, I guess the diet changes, and I guess that the eel story is a transformation, procreation transforming identity, infant form to adult, from salt to fresh, fresh to salt.”

Dr Jo Anne Rey

A WELL PERFORMING PLACE WITH THE ASSETS TO BUILD FROM

Our approach has started with an understanding of Macquarie Park’s significance as a highly productive centre for both Sydney and Australia. Country has never been a ‘blank page’, therefore we are rather acknowledging the assets and catalysts of the place.

There are some incredibly successful stories from this place and its deep history, alongside the clear and present need to identify and address the challenges and future expectations of people, place, connectivity and respect for Country, in order for it to adapt and evolve in the future.



ESTABLISHED ANCHOR BUSINESSES

Macquarie Park is an established business cluster in the health, education and technology sectors including Cochlear, Astra Zeneca, Johnson & Johnson, Sony, Optus and Foxtel. A number of the world’s largest companies, with 12 of the top 100 companies by market capitalisation, have their Australian headquarters.

The Strategic Masterplan will:

- prioritise well being and the richness and diversity of culture that flows from reciprocal relationships between Ngurra and its community; and
- reveal the rich heart of this place and its culture, and enable opportunities for the business community to connect, engage, create purpose and unique identity.



CHANGES TO WORKING AND LEARNING

Increased corporate investment in employee and prospective employee wellbeing, co-working, and changing expectations of flexibility challenges conventional office forms.

‘Whole-life’ education and online programs create more diverse and inclusive learning which challenges established models of classroom and lecture theatre.

The Strategic Masterplan will:

- improve the diversity of educational and employment spaces and provide better connections between living and working spaces; and
- restore and celebrate this site’s ongoing cultural significance to the Dharug as a site of higher learning.



ACTIVE AND ENGAGED STAKEHOLDERS

Landowners, council, state and tier one developers are engaged in major new projects in Macquarie Park of over 100 billion dollars. Alongside its continued office market profile, the large lot sizes provide flexibility to bring new propositions forward. Continued transformation requires continued collaboration to maintain this commitment to investment in Macquarie Park’s future.

The Strategic Masterplan will:

- reinforce policy positions and give clarity to the future spatial form of the precinct, informed also by the features and attributes of Ngurra, which inherently facilitates the interconnection of people, place, business and community.



MACQUARIE UNIVERSITY AND INNOVATION HUB

Since its opening in 1964, Macquarie University has been a pioneer in collaboration with industry, business and the public sector and has a strong track record as an innovator in health and tech.

The university is ranked among the top 1 percent of universities in the world. The hospital is also a key business attractor for biomedical research.

The Strategic Masterplan will:

- connect the university and its activities more strongly into the diversifying and growing community, acknowledging that the Wallumattagal have always engaged in higher learning, intergenerational knowledge transfer and life long learning.



A HIGH PERFORMING CENTRE OF JOBS

As Australia’s largest office market outside of a capital city core with a number of multi-nationals and global connections, Macquarie Park is a strong contributor to Sydney’s Three Cities model. Macquarie Park is 80% as productive as the Sydney CBD in terms of output (GDP), home to 180 multi national companies and 200 SMEs, and is the 6th largest CBD (as a measure of GDP) in Australia.

The Strategic Masterplan will:

- support and sustain this global network and it’s economic profile, by implementing the social and environmental sustainability protocols of Ngurra into implementable actions



IMPROVED TRANSPORT CONNECTIVITY

The existing rail and bus network, metrofication of the rail line and the proposed bus interchange at Macquarie Park University are significant assets that have increased Macquarie Park’s connectivity to support its future growth. The delivery of council’s ‘fine grain road network’ will provide walkable access from the three stations to 85% of the park.

Connectivity will also support a new relationship with culture and history.

The Strategic Masterplan will:

- optimise the role of public transport nodes and support shift to active modes of travel; and
- reinforce the way Wallumattagal Country has shaped movement and place.



INCREASING COMPETITION FOR TALENT

Sydney’s growth west and intensification in the Harbour City and Parramatta is invigorating new precincts and creating a series of directly competing places including North Sydney, Norwest and Homebush Bay, alongside more established ‘innovation precincts’ with high quality of life, diversity of business space and anchor universities such as Ultimo and Central.

The Strategic Masterplan will:

- address issues such as; existing anchor tenants relocating to other centres, new investment making alternative choices, new business and university related spin offs and start ups relocating to find better quality small to medium office space which creates valuable and attractive clusters.

...WITH THE NEED TO EVOLVE

Long range forecasts, in relation to the wider growth of the city, suggest over three and a half million square meters of office space could be absorbed in to the existing structure of Macquarie Park – equating to a volume of space approximately four times its current scale over the next forty years. But who are these people and what are these jobs?

The barriers to delivery against these forecasts are complex: Sydney’s changing economic geography; impacts of a changing culture of work; the balance between private and public transport and a desire to reconnect more strongly to Country and the places we live, work and play within.

Understanding the impact these have on the ‘assets of place’ is critical to prioritising the plan that can support not just growth of scale but growth of quality. Our analysis has reviewed both technical and empirical sources to understand and prioritise these core impacts.

This includes central issues of congestion and ease of private vehicle movement to and around, to issues of accessible workspaces, a lack of night time economy, low quality walkability, a lack of clarity around density and mix of uses, and a significant missed opportunity to connect to Country

Our previous interviews with the private sector and developer market reinforced many of these constraints, however equally reinforced the huge potential for positive transformation which is latent in Macquarie Park when these can be overcome.



DISCONNECT FROM COUNTRY AND ENVIRONMENT

The proximity to green and blue landscape assets equally create a potential vulnerability to bushfire and flooding impacts. Increased levels of heat adversely effect the natural environment and human comfort. Increased development equally requires integrated mitigation strategies. Potential impacts of developing without respect for natural Country systems include:

- Poor quality natural environment;
- Discourages the use of active transport options;
- Increases water and energy usage;
- Disrupted transport and infrastructure networks; and
- Missed opportunity to retain the precincts significant “green” assets.



HISTORIC RELIANCE ON PRIVATE VEHICLES

The existing road network capacity struggles to meet the peak hour demands of Macquarie Park in its current form. As development intensifies, the quality and time of journeys is likely to be impacted without addressing capacity and flow issues. Potential impacts of not addressing improvements include:

- Constrained peak time movement of employees, visitors, residents, etc.;
- Increased issues around air quality, safety and quality of pedestrian experience;
- Issues around delivering bus prioritisation within existing network; and
- Vehicular prioritisation impacts on the potential for public transport improvements and the pedestrian experience to safety.



LACK OF A SENSE OF ‘PLACE’ AND CULTURE

The quality of life a neighbourhood can offer is a key driver of people’s choice of where to work, live and play. Addressing Macquarie Park’s lack of high quality public realm, limited cultural and night time economy offer, is required to remain competitive alongside more developed ‘urban’ districts. Potential impacts of not addressing improvements include:

- Reduced capacity for workforce recruitment and retention;
- Reduction in ability for precinct to reach its economic potential; and
- Restricted ‘Networking’ assets which constrain the development of and effective innovation ecosystem.



OTHER CENTRES WITH GREATER AMENITY

Sydney’s growth west and intensification in the Harbour City and Parramatta is invigorating new precincts and creating a series of directly competing places including North Sydney and Homebush Bay alongside more established ‘innovation precincts’ such as Ultimo and Central with high quality of life, diversity of business space and anchor universities such as Ultimo and Central. Potential impacts include:

- Anchors tenants relocating to other centres such as Microsoft (North Sydney);
- Start ups relocating for small to medium office space; and
- Failure to develop clusters.



CHANGES IN WORKING DUE TO COVID-19

In a response to lockdowns and restrictions, communities have adopted social distancing and moved to working from home models (where possible). These measures have prompted profound changes to the way people move, consume, and work, changing patterns of infrastructure use.

Potential impacts include:

- Continuum of impacts on secondary sectors like hospitality, accommodation, food and beverage, retail and arts and culture;
- Underutilisation of existing commercial space; and
- Decline in economic output.



POOR WALKABILITY AND LACK OF ACTIVE TRANSPORT LINKS

The existing urban form contributes to increased door-to-door travel times for public and active transport modes. A high-quality walking and active transport environment is typically expected of innovation and central business districts. The desire for a more walkable, finer grain environment has been continuously expressed in community consultations.

Potential impacts of not addressing the poor walkability and active transport links include:

- Increased congestion on private transport;
- Decrease in pedestrian safety;
- Decrease in amenity and desirability; and
- Unactivated ground floor plane due to the lack of demand.

FUTURE DRIVERS AND TRENDS

COVID-19

COVID-19 presents an opportunity for the masterplan to outline current advantages in Macquarie Park, including the adaptable and affordable spaces, the open and green environment, and continuing improvements to the local transport network. Macquarie Park will also be able to capitalise on strong relationships with tenants, particularly between academic, corporate, and government communities to aid in the recovery from COVID-19.

In a response to lockdowns and restrictions, communities have adopted social distancing and moved to working from home models. These measures have prompted profound changes to the way people move, consume, and work, changing patterns of infrastructure use. The pandemic has highlighted the need for flexibility within the masterplan to make Macquarie Park attractive for workers to return to the office on a sustained basis.

The following section examines the impact COVID-19 has had on ways of working, commercial property and mobility, which are all critical components of Macquarie Park. These changes highlight the need to re-establish and reframe Macquarie Park as a well-connected, vibrant, and amenable environment where there is critical mass of related enterprises which leverage proximity to anchor institutions like Macquarie University.

WAYS OF WORKING

- Acceleration of digital transformation

- Work from home is here to stay: Connect Macquarie Park survey reported 58% of people want to work from home 2-3 days a week, in contrast to pre-COVID-19 where 62% of people wanted to work from the office every day.

The demand for efficient, collaborative digital technology increased during COVID-19 as more workers in professional services moved to working from home. Many view the working conditions during COVID-19 lockdowns as demonstrable proof that remote working can be successful, thus accelerating the trends of digital transformation. Employees have had to quickly upskill on a variety of digital platforms, and this new fluency will likely influence future ways of working and physical workspace requirements.

There is an opportunity to maximise the utility of unoccupied and underutilised space to increase the diversity mix of offer, in the form of meanwhile uses to occupy vacant spaces or through the provision of co-working spaces for example. Many companies have embraced the hub-and-spoke model, where their workforces are distributed from a centralised location, while preserving connection and company culture. This has led to growing demand for co-working spaces which provide a “third space” for people who can’t work from home, or don’t want to travel back into the CBD or head office.

COMMERCIAL PROPERTY

- Vacancy rates increased by 2.8% between July 2019 and July 2020

- Negative net tenant demand (1.6% to –1.7% between July 2019 and July 2020)

- Greater need for adaptable and affordable flexible spaces (i.e.co-working spaces)

Amidst economic uncertainty due the COVID-19 pandemic and government restrictions on movement, office leasing activity has declined, and vacancy rates have started to rise. Between July 2019 and July 2020, Macquarie Park recorded negative net tenant demand from 1.6% to -1.7%. According to the Property Council of Australia, vacancy rates in Macquarie Park have increased by 2.8% between July 2020 to January 2021 (from 6.8% to 9.6% respectively). During this time, Macquarie Park has also recorded a negative net tenant demand dropping from 1.6% to -1.7%

Prior to COVID-19, Macquarie Park lacked affordable and adaptive spaces, limiting the diversity of businesses it attracts. This trend has only been exacerbated by COVID-19, where the lack of diversity has made the area more susceptible to industry-specific shocks and disruptions. To improve the economic resilience of Macquarie Park, business collaboration and co-investment in the area is required.

MOBILITY

- Decreased demand for public transport: Connect Macquarie Park survey reported a 6% shift from trains to private vehicles

- Increased demand for private cars causing congestion in Macquarie Park

Infrastructure Australia’s mobility trends analysis indicate public transport usage has declined, particularly during peak periods. In the second half of 2020, public transport had settled at a ‘new norm’ of about 60-70% as people partially returned to work and travelled more flexibly across the day⁶. This has led to higher car mode share which may be a challenge for Macquarie Park, where growth over the last 15 years has predominately been by car-based travel. In order to support continued growth, fostering a move towards increased public transport usage is required to avoid worsening congestion issues.

Changes to tax legislation in April 2021 will lead to the introduction of fringe benefit tax in Macquarie Park which could generate significant liabilities for employers, as more people parking at the office will result in a larger tax bill for businesses. This tax provides an opportunity for businesses to provide other programs like shuttle buses from transport interchanges, carpooling initiatives or subsidised public transport.

WHAT IS THE FUTURE ROLE OF MACQUARIE PARK?

As Australia’s largest non-CBD office market and one of the strongest growing employment centres in Sydney, Macquarie Park is critical to leading NSW out of the COVID-19 recession.

Macquarie Park, which forms part of the Eastern Economic Corridor, has been heavily impacted by the sharp decline in international students and visitors. The impacts of which include secondary sectors such as hospitality, accommodation, food and beverage, arts and culture and retail. This is evident in the decline in City of Ryde Gross Regional Product (GRP) by 5.0% between September 2019 and September 2020. In comparison, the NSW GRP declined by 3.9% during the same period.

In order for the Macquarie Park precinct to deliver on the NSW Government’s objectives for innovation, economic recovery and growth, the precinct needs to have sufficient scale, clustering of research, expertise, services and industries and a unique value proposition or areas of specialisation.

FUTURE DRIVERS AND TRENDS

CASE STUDIES ON EVOLVING BUSINESS PARKS

In Australia and globally, business parks are evolving from traditionally commercial/manufacturing-only precincts into modern commercial mixed use environments where the focus is on improving the amenity and making it a place where people can work, live and play. These case studies highlight business parks from Australia and USA that are currently undergoing such transformation, whilst the case study from the UK shows the latest visionary thinking that has come through from a recent competition winning scheme.

All these examples incorporate a mix of uses, including the introduction of residential, which assists to verify the approach we are taking for the future of Macquarie Park.

TONSLEY INNOVATION DISTRICT, ADELAIDE, AUSTRALIA



Tonsley is an integrated, mixed-use innovation district that encourages collaboration between industry, education and research alongside the wider community. Tonsley Innovation District targets four focus sectors that reflect South Australia's economic opportunities, and has been designed to support businesses and organisations located within the innovation district to innovate and grow sustainably.

- 11 hectares for approx. 650 homes and 1,200 residents;
- 24 hectares for business (light industry or commercial use);
- 8,500 students to attend Flinder's University and TAFE SA's Sustainable Industries Education Centre

Lessons for Macquarie Park:

- Mix of uses including residential;
- Adaptive reuse of assets;
- Connections between academia and business; and
- High amenity, mixed-use urban development, essential to meet the demands of knowledge-intensive industries and innovative businesses seeking to attract and retain highly-skilled people

CUMMINGS RESEARCH PARK ALABAMA, USA



One of the world's leading university-led science and technology business parks, Cummings Research Park houses high-tech enterprises, U.S. space and defence agencies, and thriving business incubators. The masterplan is designed to encourage the innovation-driven economy it promotes and it forms an integral part of a network of research destinations. The masterplan includes incorporating new and additional outdoor amenities to further connect the Park with greenways, bicycle and pedestrian pathways, and pocket parks. The Park has strong cultural ties with its surroundings.

- 3,843 Acres;
- More that 26,000 employees and 13,500 Students;
- 240 luxury apartments;
- Town centre with retail, hospitality and accommodation added in 2007.

Lessons for Macquarie Park:

- Mix of uses including residential;
- Sectoral diversity;
- High amenity, mixed-use development including parks, plazas and walkable streets, and
- Leverages anchor businesses and educational institutions.

ECORESPONSIVE ENVIRONMENTS 'VISION OF FUTURE LIVING' RUNCORN, UK



EcoResponsive Environments has won the 'Vision of Future Living' RIBA competition for the redevelopment of SOG's Heath Business and Technical Park. It aims to create a 21st century sustainable campus. The proposal reimagines the landscape, water management, food production and work within whilst considering how we will live, work and play in the future to meet the needs of the next 20 years and beyond.

The vision for The Heath Park Project builds on the successful regeneration of the old ICI headquarters campus and proposes to embrace wider responsibilities to community and the environment, illuminating the way to a better future in how we live, work and play.

- 75% Reduction in running cost of street lights
- 40% Grey water recycling at site
- 32% Land enabled for local food production

Lessons for Macquarie Park:

- Scientific laboratories and commercial office space;
- Health and landscape focus;
- Mix of uses including residential; and
- Vision for 21st century sustainable campus.

PLACE AUDIT SUMMARY

Place can be measured and assessed for its strengths and weaknesses. According to the Project for Public Spaces, successful places generally share four qualities: they are accessible, people are engaged in activities there, the space is comfortable and it is sociable.

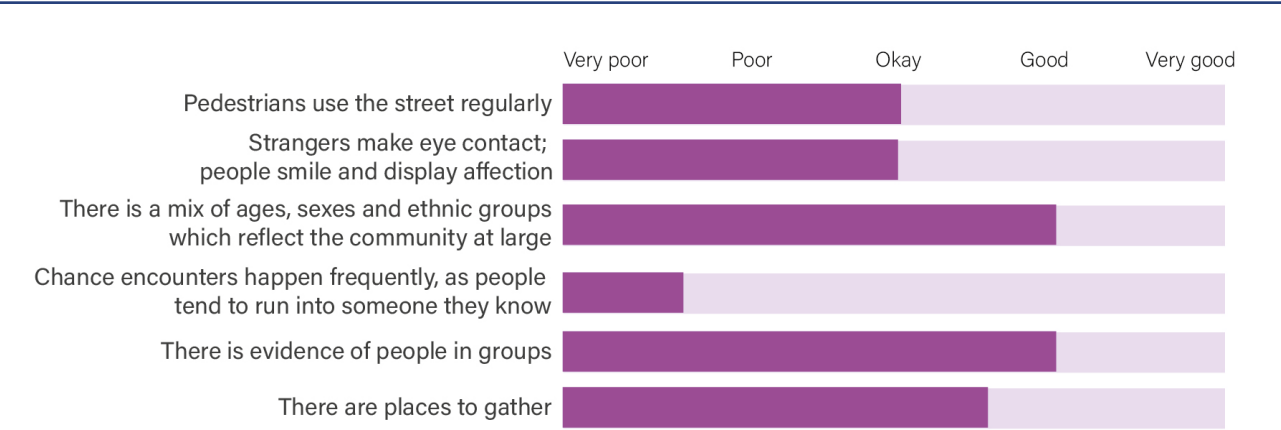
A place audit for Macquarie Park was conducted on 5 December 2019 from 9:30AM to 11:00AM and 4:30PM to 8:00PM. The place audit of Macquarie Park is based on *The Place Diagram* by the *Project For Public Spaces*. Macquarie Park was evaluated using the four broad categories:

- Sociability;
- Comfort and image;
- Access and linkages; and
- Uses and activities.

While the Investigation Area is a specific area, the experience of Macquarie Park as a place extends beyond this boundary. It also includes the neighbouring areas of Lachlan’s Line and the Herring Road (Macquarie University) Precincts, as well as the Macquarie Shopping Centre. These areas were included in the place audit in order to paint a holistic picture of Macquarie Park as a place.

Each of the four broad categories are broken down into key statements that are rated against a scale from very poor to very good based on observations from the place audit. The sentiments of the community from the Macquarie Park Local Character Statement have also been summarised here. The place audit is presented in full in Appendix C: Macquarie Park Placemaking Strategy.

SOCIABILITY



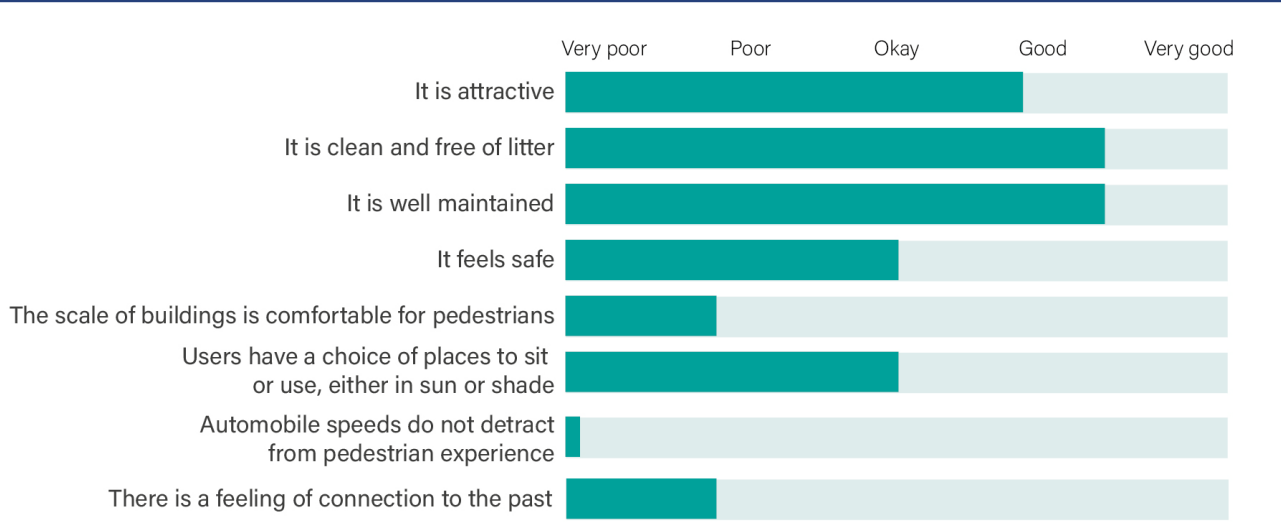
As an established business park, Macquarie Park is the site of the formation of many networks and relationships that are not yet easily visible from the street level.

Sociability is a difficult aspect to measure in place, but it is an unmistakable feature. It is the glue that holds places together – the people, and their perceptions of place and how they use it.

The Macquarie Park community is made up of many different groups, aside from workers, there are the residents from the nearby communities, the students from Macquarie University and visitors from around Sydney. It is clear that the area is used by many different groups of people. People go about the area in groups, especially in the shopping centre, which is a popular destination for many people in the area. However, people mostly keep to themselves, and there is little evidence of strangers interacting with one another as well as chance encounters.

There are places for people to gather around Macquarie Centre and the outdoor dining areas of the cafés and restaurants up and down Macquarie Park, as well as around North Ryde Station. However, the area is lacking in terms of benches and small pocket parks where people can run into a friend and catch up.

COMFORT AND IMAGE



The Investigation Area has a strong business park character: large plots with large buildings that have large floor plates that are set back from the boundary. Many of the buildings in Macquarie Park were constructed in the past ten years. These buildings have given parts of Macquarie Park a contemporary, modern feeling. Many workers are attracted to this style of building; however, others have expressed concern at protecting the older industrial style of buildings, which touch upon the area’s history as a business park. The Investigation Area appears to be clean, free of litter and well maintained.

The scale of buildings, coupled with the wide roads, can be uncomfortable and intimidating for pedestrians. Speeds on major roads, like Waterloo, Herring and Lane Cove Roads as well as the width of these roads make for an intimidating urban environment.

The sense of safety in Macquarie Park is negatively impacted by heavy traffic, busy roads and a lack of adequate lighting and activation on streets.

The streets of Macquarie Park are lined with trees. Footpaths are generally accompanied by strips of planting serving as a buffer between the path and the road or street. The tree canopy, the vegetation along Shrimptons Creek and the Riverside Corporate Park extend the bushland look of the neighbouring Lane Cove National Park; however, the supply of green open spaces within Macquarie Park is lacking. Even with the National Park a 20-minute walk from most of Macquarie Park, the M2 Motorway is a major physical barrier between both areas.

Landscaped areas are common attachments to buildings; however, they are usually inaccessible to the public. There are several privately-owned-public spaces (POPs) within Macquarie Park. These spaces, while technically publicly accessible or visible, are usually reserved for employees of the tenants of these buildings.

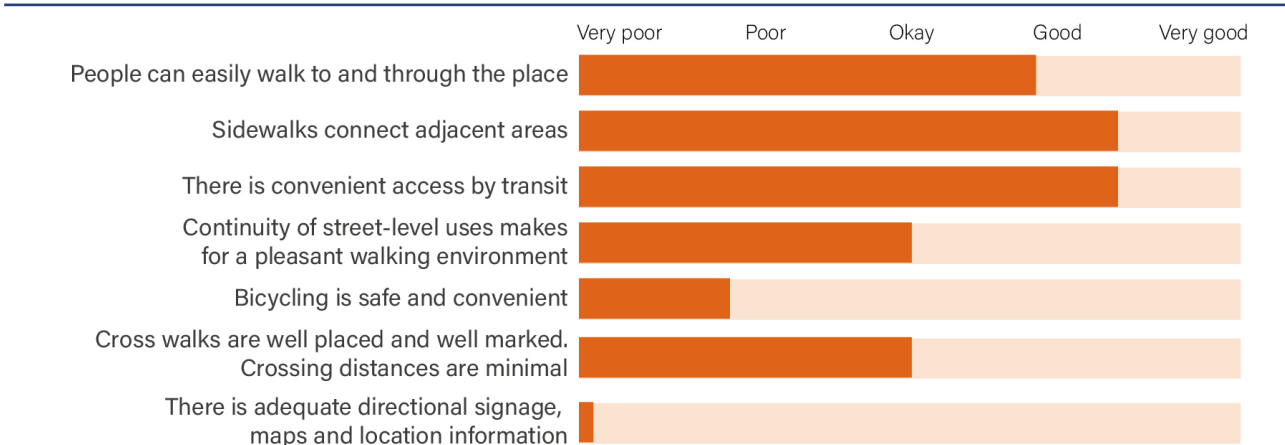


Contemporary buildings in Macquarie Park (Source: Arup)



Office courtyard in Macquarie Park (Source: Arup)

ACCESS AND LINKAGES



The grid of streets and roads within Macquarie Park makes the area easily navigable. Users can walk through the place. Sidewalks are continuous. Buses and three Metro Stations within the wider Macquarie Park area offer an alternative to walking. However, experience on the street is unpleasant unless one is in a car. The topography of Macquarie Park is challenging; aside from that, pedestrian crossings are few and far between and walking next to a six-lane road full of cars can be intimidating and uncomfortable.

Cyclists in the area often cycle directly on the road next to heavy vehicle traffic. Crosswalks are few and far between. Pedestrians looking to cross Waterloo Road have to cross a three-point crossing.

The Investigation Area lacks a sense of permeability. Aside from the size of buildings and plots, there is also a lack of ground-level activation and the busy roads that pedestrians traverse. Destinations, like retail, restaurants and entertainment, are spread out through Macquarie Park in an ad-hoc way, making the pedestrian experience feel disparate and inconsistent.

There is a lack of a sense of arrival into the area. The Macquarie Park Metro Station exit directly faces onto Waterloo Road and makes for a lacklustre destination.

The lack of connectivity has spurred a response. Major landowners, such as the Goodman’s Network, and businesses like The Governor Hotel provide free shuttle services for users to and from the Metro stations and other points of interest in and around the surrounding suburbs.



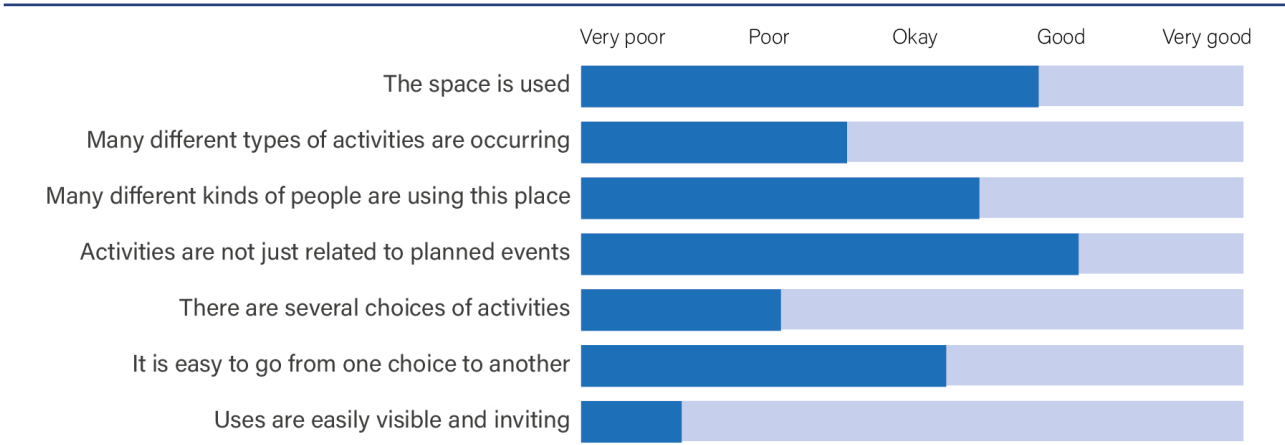
Exit scene from Macquarie Park Station (Source: Arup)



(L) Shared path along Waterloo Road; (R) Free shuttle advertisement outside The Governor Hotel (Source: Arup)



USES AND ACTIVITIES



Activities offer a glimpse into what draws people into a place and what motivates them to keep coming back. They are the “basic building blocks of great places.”

Macquarie Park is a busy place, accessed by workers, residents of neighbouring communities and from the wider area. During the weekday, it is much less busy on streets and public spaces.

As a key strategic business centre, the main types of activities in Macquarie Park are: going to work and participating in work, going to Macquarie Centre to shop, patronizing retail along Lane Cove Road, as well as some recreation uses in 24-hour gyms.

Users of the place appear to be mostly adults of a working age, with a few younger people, families and elderly people around Macquarie Centre.

Aside from office space, other choices of activities in the area include cafés, restaurants and a pub. The Macquarie Centre also has these activities, along with a cinema, ice rink and retail. Outside of Macquarie Centre, non-work related activities like dining and shopping are limited and concentrated around Lane Cove Road and the North Ryde Metro Station.

Community uses, like libraries, are not present in Macquarie Park. However, there are childcare centres, medical facilities, a school and an emergency facility. The lack of these types of uses may be linked to the lack of a residential population in the area. Macquarie University has these uses, but due to the increasing demand from its own users, access to these facilities are becoming limited.

Activities in the area do not appear to be related to a planned event. Many different groups of people (age, gender, race) can be spotted throughout Macquarie Park.



Contemporary buildings in Macquarie Park (Source: Arup)



Office building on Waterloo Road in Macquarie Park (Source: Arup)

3. VISION & OBJECTIVES

This vision and the objectives are underpinned by a series of core principles which drive the framework and key moves set out in the pages following. The vision and objectives have been shaped by strategic planning policy and the numerous voices across Macquarie Park, including business and industry, workers, students and local residents.

Country-Centered Design has provided the framework for the vision to be tested against the current context. Working with a wide array of Indigenous knowledge holders, local groups, businesses and stakeholders we conducted a series of workshops, interviews and desktop research to reveal the cultural foundations of Ngurra and the challenges and opportunities of the Macquarie Park. This involved assessing the knowledges of Ngurra to reinstate its core cultural foundations, enabling us to define the conceptual framework for the new vision.

Vision

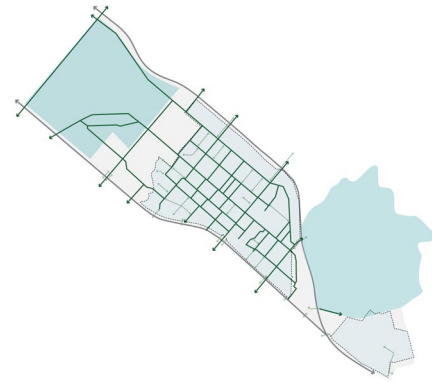
A growing home to world class businesses, research and education, Macquarie Park will be competitive and resilient strengthening its role within Sydney and Australia's future economy.

It will be a place for people; characterised by its connectivity and the unique setting of Wallumattagal Country – a place of rivers and fertile wetlands with a deep history of learning, trade and culture.

It will be a place that sparks ideas and fosters creativity through strong interconnected relationships between people, education and industry and a renewed connection to Country.



MASTERPLAN OBJECTIVES



OBJECTIVE 1: IMPROVE THE QUALITY OF MOVEMENT

‘Woven ways’

From private to public to active transport, improving the quality of how people and things move around Macquarie Park is vital to creating better outcomes for all. The strategic masterplan will:

- Increase walkable links and walking choices within and into Macquarie Park and its precincts
- Increase the quality of interchange between metro, bus and active transport networks
- Encourage a sustained transition away from private vehicle use to a more balanced mode share. This will include parking innovation
- Respond to the natural features and attributes of Country to enhance streamlined movement through and to Macquarie Park

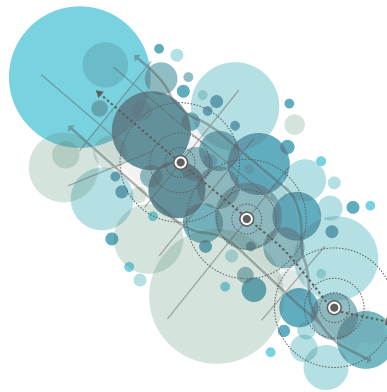


OBJECTIVE 2: IMPROVE THE QUALITY OF PLACE

‘Belonging & revealing culture’

Increasing the cultural and social life of Macquarie Park, and connecting its users more strongly to its non-urban setting is vital to sustaining its economic status. The strategic masterplan will:

- Increase opportunities where the Macquarie Park community and its visitors can connect to the deep history and features and attributes of Wallumattagal Country to continue its long tradition of sharing knowledge and culture
- Deliver a well-connected network of new and improved open spaces for the growing Macquarie Park community
- Enrich the relational interconnection of all entities within Macquarie Park, connecting the dots between business, environment, cultural and social infrastructure

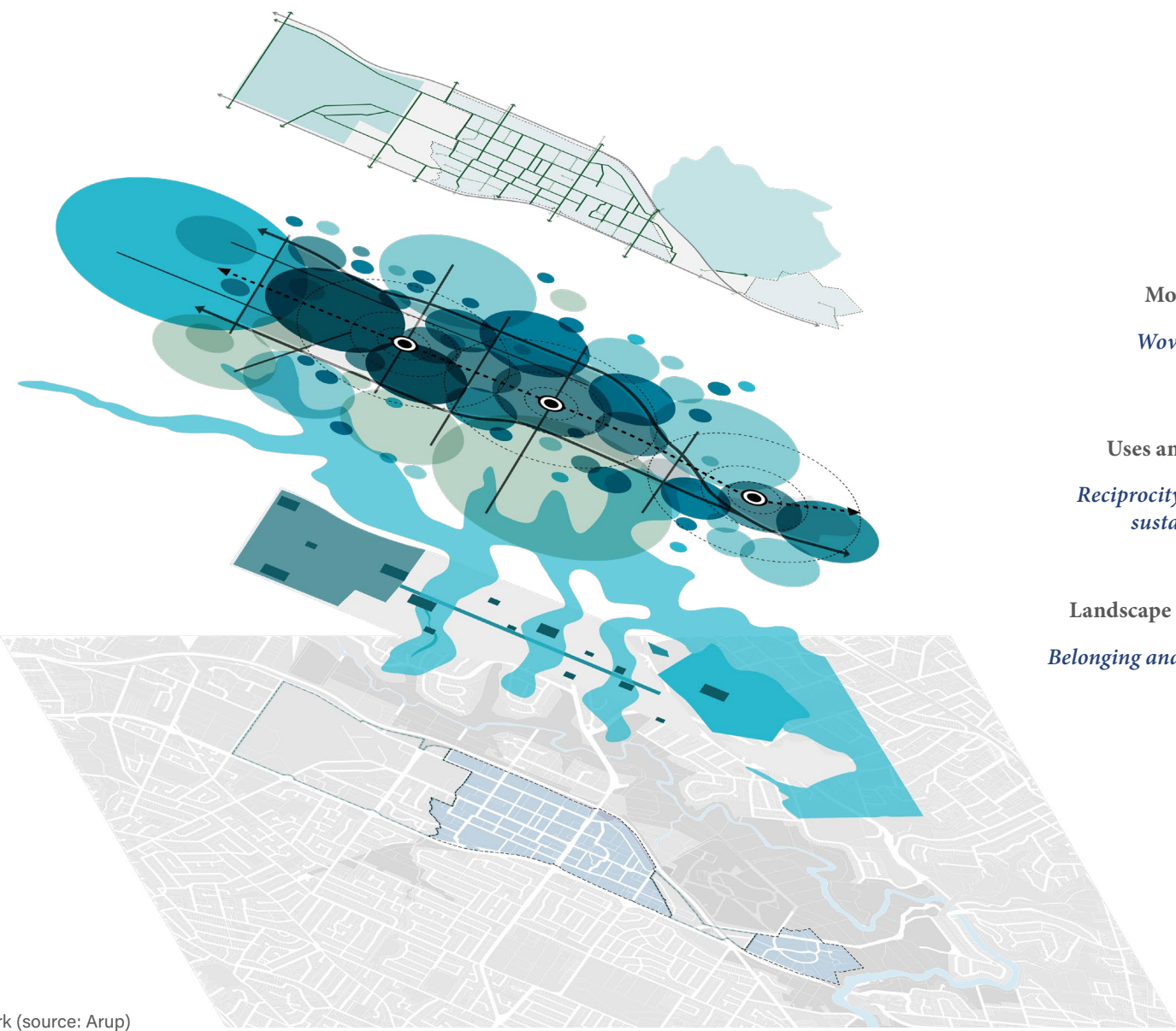


OBJECTIVE 3: IMPROVE THE BUSINESS COMMUNITY

‘Reciprocity, diversity and sustainability.’

Improvement to network assets, physical assets and economic assets in Macquarie Park is required to increase scale, quality and accessibility of opportunities. The strategic masterplan will:

- Support the continued development of a business ecosystem
- Make new and adapted built form, and active ground floors, that will diversify business types, sizes and sectors
- Ensure collaborative working between government, business, university and communities to create inclusive growth and opportunities for all
- Introduce new governance and leadership models based on collaboration, interconnection and integration
- Provide a framework for the existing governance structures in place to oversee the coordinated delivery of the masterplan’s objectives



Movement

Woven Ways

Uses and activities

Reciprocity, diversity and sustainability

Landscape and open space

Belonging and revealing culture

Strategic Spatial Framework (source: Arup)

4. STRATEGIC PRINCIPLES

The vision and objectives are supported by a set of guiding principles to present an overarching spatial framework which will guide the future development of Macquarie Park. The framework seeks to move Macquarie Park from a suburban campus to a rich urban place.

The Strategic Spatial Framework is made up of layers which will deliver the vision of the Strategic Masterplan. The Strategic Spatial Framework is comprised of:

- Economics;
- Landscape and open space;
- Land uses and activities; and
- Movement and neighbourhoods.

These interwoven layers are brought together by the overarching approach of Country-Centred Design. This is at the heart of all the actions and intentions within the Strategic Masterplan.

Each layer is reinforced by a series of actions of key strategic moves that demonstrate how the objectives can become tangible propositions that the Masterplan can deliver. Each key move is accompanied by outcomes to highlight the benefits that each action can provide.

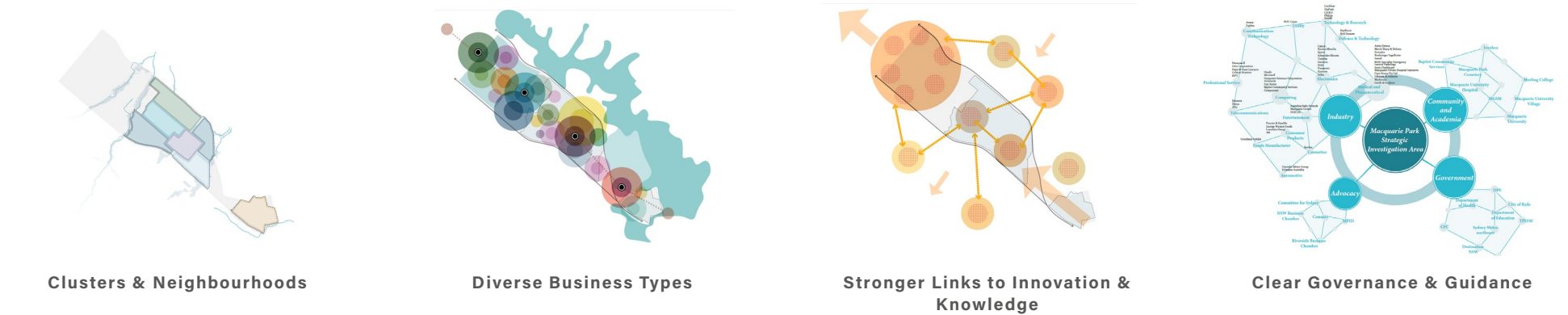
The Strategic Spatial Framework is integrated with the Strategic Infrastructure and Services Assessment to ensure that the proposed infrastructure and service requirements contribute to the vision for Macquarie Park.



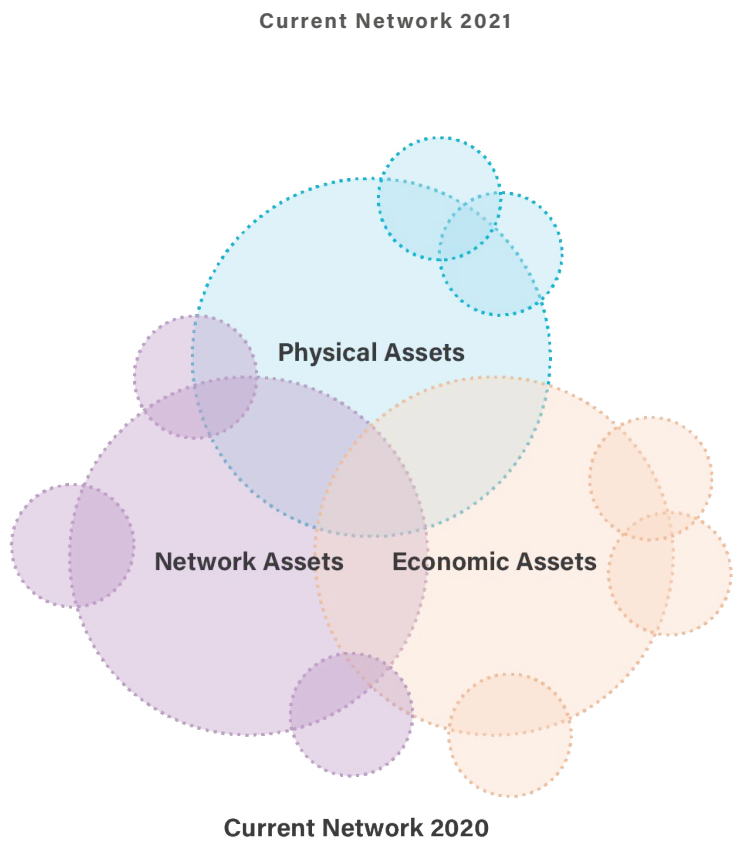
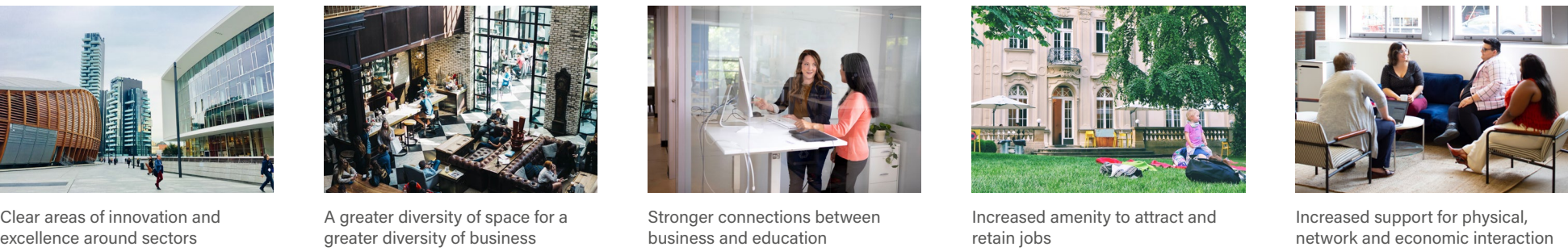
STRATEGIC ECONOMIC FRAMEWORK

Business is at the heart of Macquarie Park now. It will be at the heart of Macquarie Park into the future. Business in Macquarie Park will need to build on its valuable economic anchors while supporting innovation at all scales. It will need to be resilient against shocks and stresses and adaptable to global trends, demonstrating innovation in sustainability and a willingness to collaborate, while stimulating social investment in order to increase its access to talent. Business will play a role in caring for Country by encouraging opportunities to interact and collaborate, as well as opening itself up to a greater diversity of businesses with aligned ambitions for sustainable business to share in future opportunities.

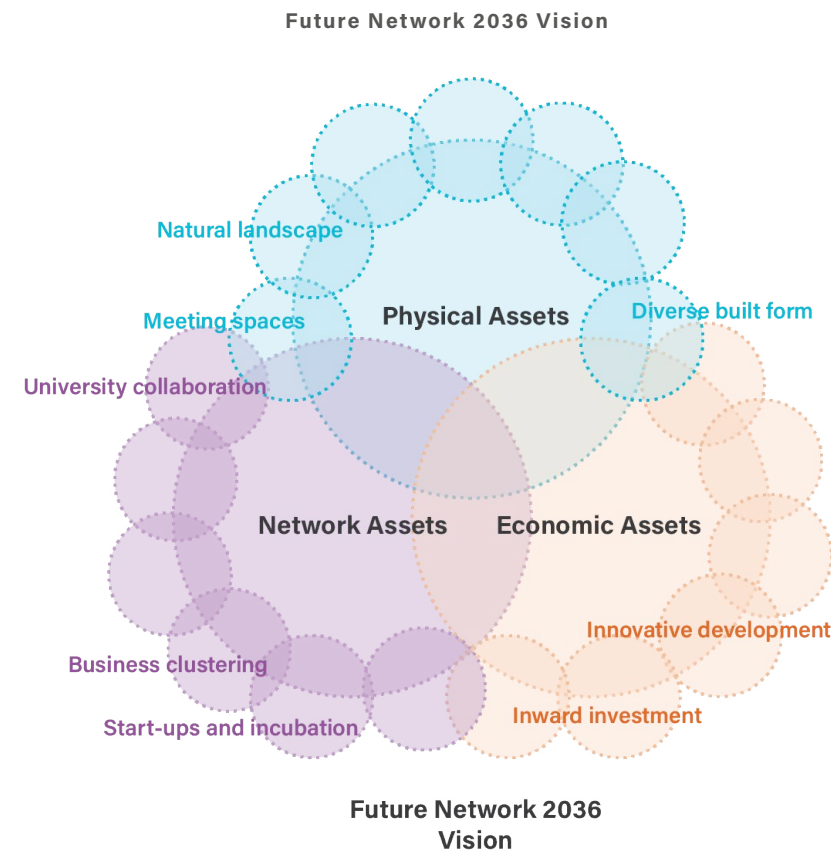
PRINCIPLES



DESIRED OUTCOMES



Using the **Brookings Institute Framework for Innovation Places** (establishing the three interrelated factors of **Economic Assets**, **Network Assets** and **Physical Assets**) our proposed **Economic framework** identifies the gaps and opportunities to strengthen these relationships with focused actions.

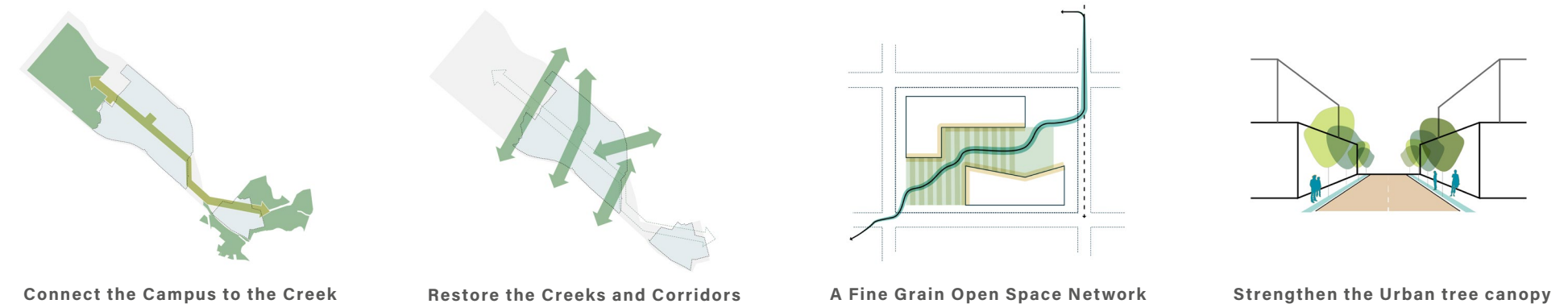


The actions are interconnected with the other layers of the MPSIA framework. Though better access to amenity, diversified employment space types, reinforced university collaboration and clustering, innovating around delivery models, and stimulating investment, the network becomes more resilient and creates the conditions for stronger economic performance.

STRATEGIC LANDSCAPE FRAMEWORK

Access to high quality open space and landscape is a central, defining quality of place. Healthy and attractive places require a diversity of open space types both to meet needs and expectations of urban living and working, but also to encourage life outside. A differentiating aspect of Macquarie Park will be its provision of new open spaces and new connections to areas of natural quality, which have a strong relationship to Wallumattagal Country and heritage. Specifically, this will be achieved through the connection back to the river and creek lines . Critical to this is the introduction of other forms of green infrastructure and natural capital within, on top and amongst built form, and in coordination with the other layers and actions of the framework.

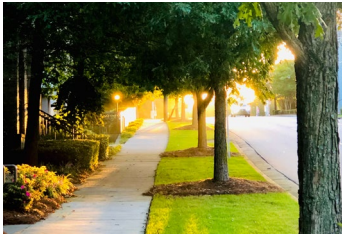
PRINCIPLES



DESIRED OUTCOMES



Create opportunities to support active lifestyles and well-being in workers, residents, students and visitors



Strengthen climate resilience including water management, bushfire management, urban heat island effect



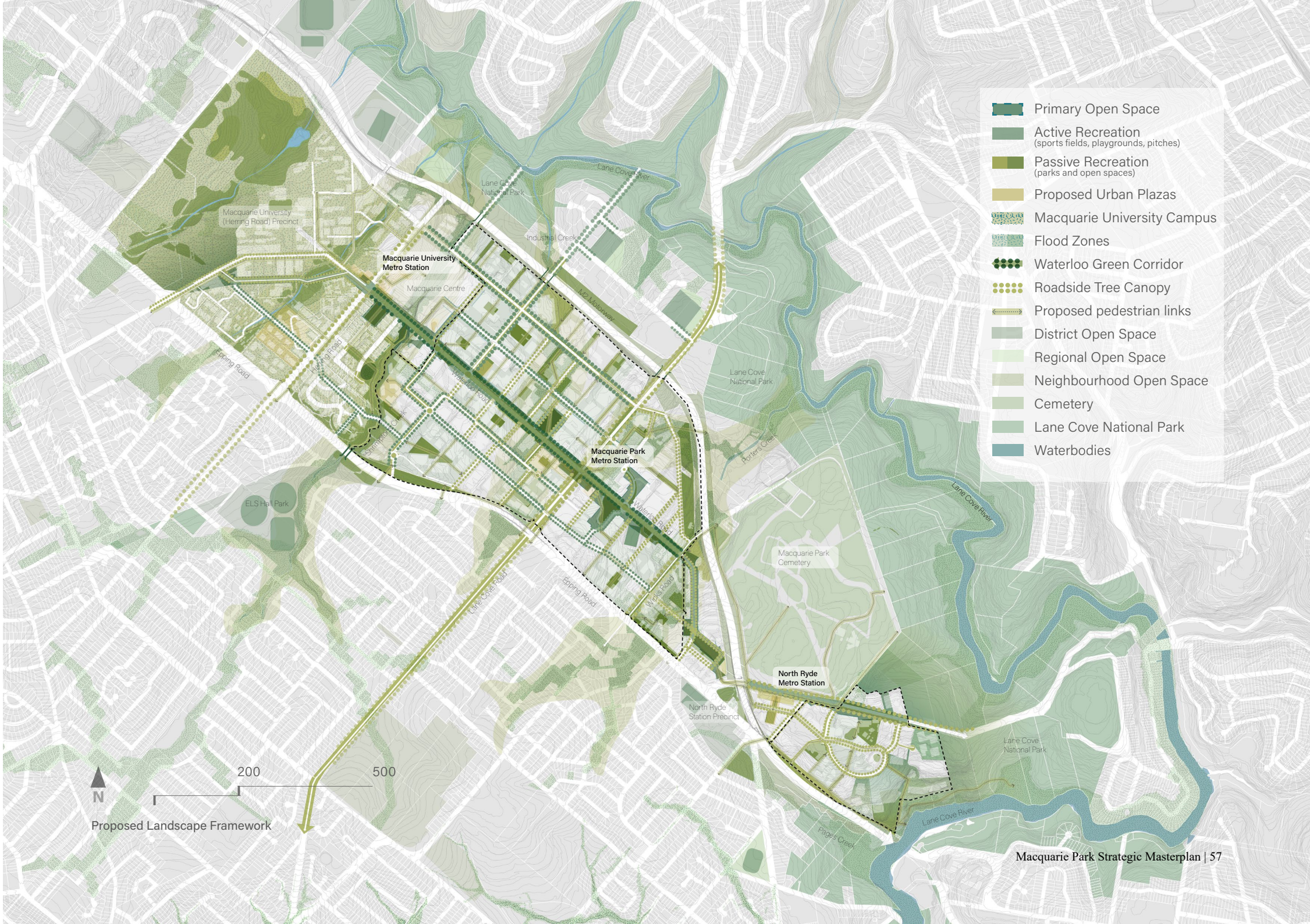
Contribute to realising Macquarie Park as a green and ecologically rich environment



Create a fine grain network of public and semi-public spaces



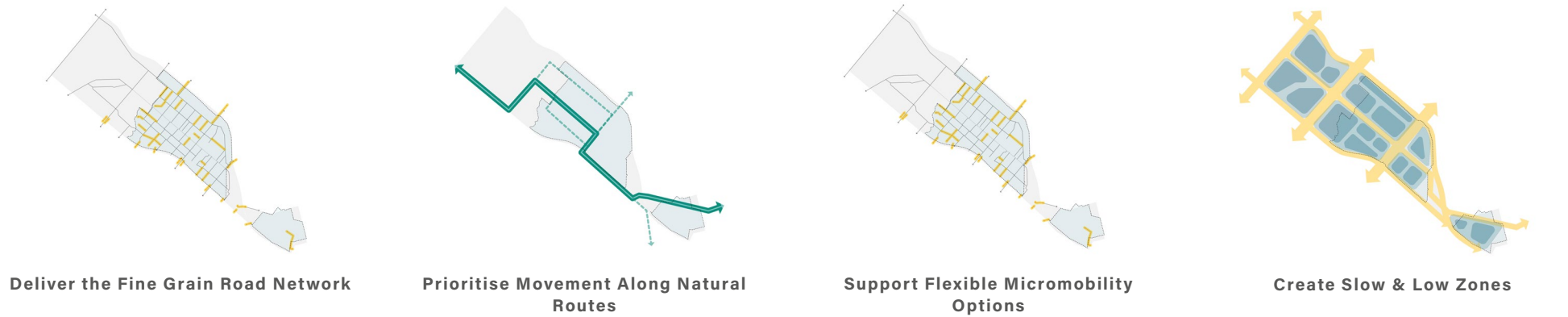
Show and open up the Creek spaces and historic lines both as open water and as places of increased biodiversity and green infrastructure.



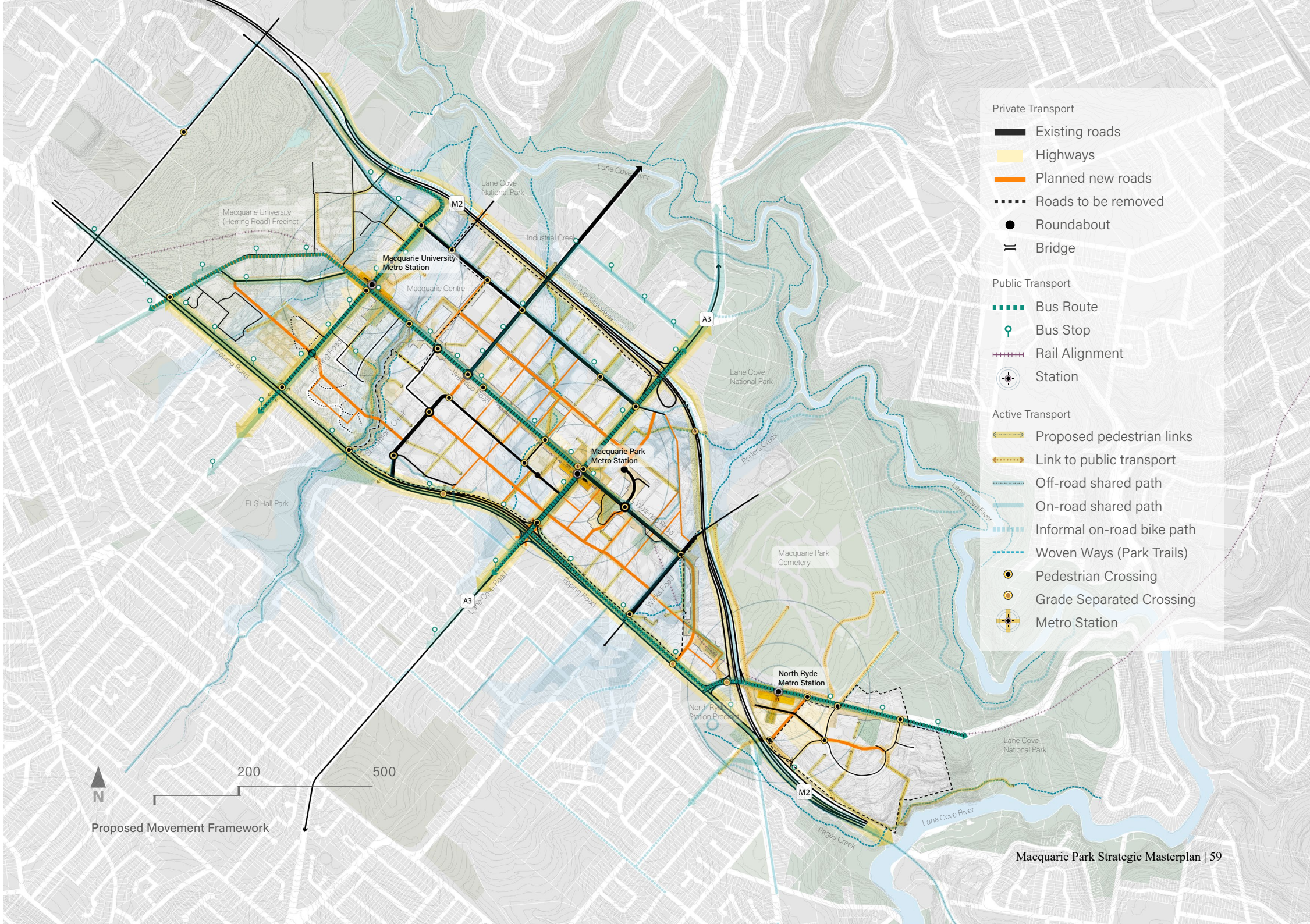
STRATEGIC MOVEMENT FRAMEWORK

Macquarie Park is a significant strategic corridor for transport in all modes: road, rail, bus, cycling and walking. The Strategic Movement Framework will draw together the multiple existing networks of movement and new movement infrastructure, programs and works packages underway within Macquarie Park. The aim of the Movement Framework is to integrate the different needs of transport users, creating a ‘woven ways’ network of routes and spaces which cut against the strong grid, while striking a balance across the networks in order to also improve the quality of place. In line with Movement & Place principles, the framework sets out to rebalance the existing system.

PRINCIPLES



DESIRED OUTCOMES



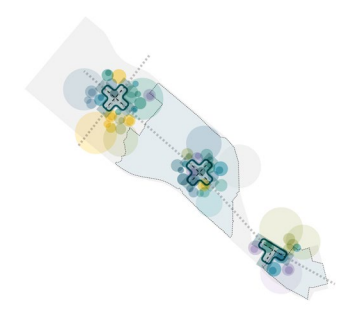
STRATEGIC USES AND ACTIVITIES FRAMEWORK

The development of Macquarie Park as an effective business park has taken place through the delivery of built form within a strong grid. This grid, as part of a car-based movement system, has a scale and organisation developed to support efficient movement to plots but there is little space for interaction between them. The growth of the university, the rezoning of land for residential use, and the arrival of the Metro present opportunities to diversify and intensify uses within the precinct, and a pathway to create new opportunities for different places for people through the provision of new open space and infrastructure to service the needs of new communities, including schools and community facilities.

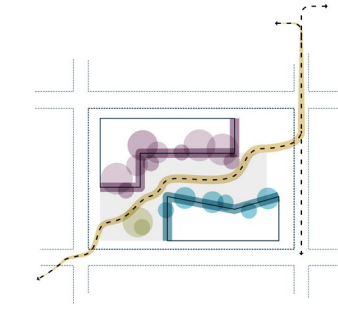
PRINCIPLES



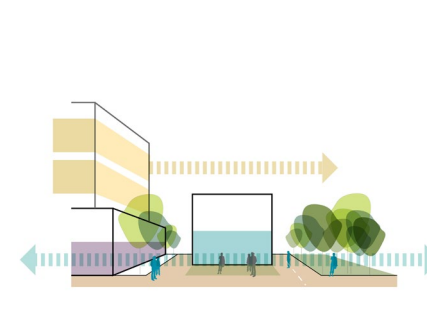
Make a 'Place of Many Places'



Make Stations Social Centres



Enrich the Ground Plane



Increase Cultural Activity in Macquarie Park

DESIRED OUTCOMES



Clustering of land uses to create places strongly characterised by their use and activity



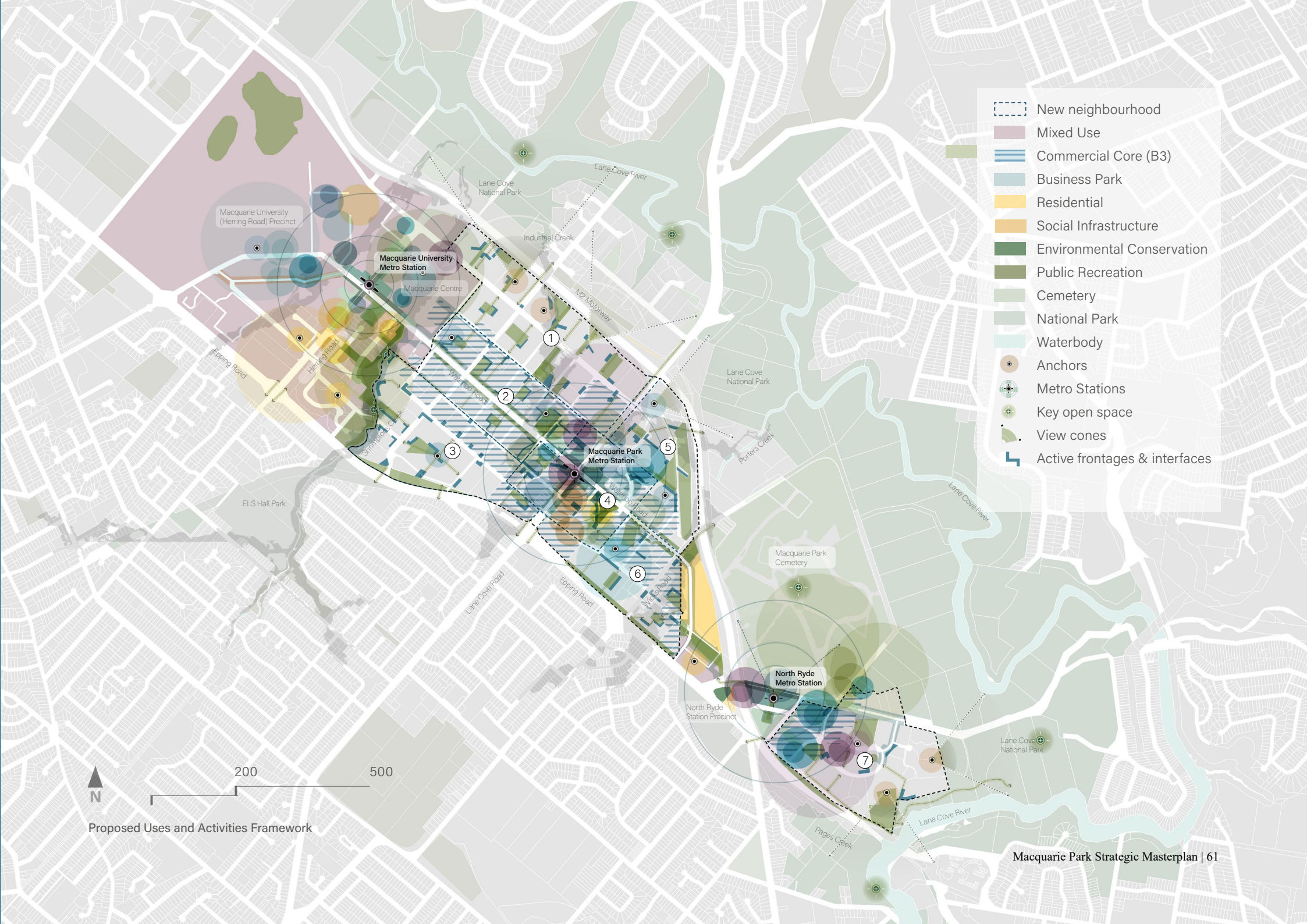
Adaptive reuse and temporary use of existing buildings and places which are planned to be redeveloped



Creating scaled neighbourhoods with supporting amenities



Civic spaces at Metro stations to provide a focal point and 'welcome mat'



Proposed Uses and Activities Framework

5. STRUCTURE PLAN

The purpose of the structure plan is to provide a clear set of spatial approaches to how the desired outcomes for the strategic masterplan framework could be delivered. This includes a refinement of the three-layered approach to the movement, open space and land use of the proposed future structure as set out here and in the following chapter. This work takes the design principles established through design studies, collaborative engagement and the design review process and evolves it into diagrams and illustrations that set out the approach at the whole precinct scale, in its relationship to adjoining UAP's and also at the more granular neighbourhood scale. The drawings and description of key moves and desired outcomes that follow are illustrative of the current proposition, they indicate potential strategies and choices for how the desired outcomes could be achieved and set the ambition for further masterplanning and policy work that will follow.



STRUCTURE PLAN

As set out, the structure plan is formed of three layers. A movement framework, an open space framework and a land use framework. These layers have been developed in coordination with the SISA process led by DPIE, the GSC and Transport for NSW. It incorporates information drawn from an assessment of the movement, open space and social infrastructure needs based on the preferred diversified pathway for growth as endorsed by the Ryde Coordination Group. Movement frameworks should be read in conjunction with the SISA and Strategic Transport Plan, (noting that recommended actions also include those delivered to the network outside the study area). The layers are underpinned and supported by the principles of the Country Centred Design strategy which should be read in conjunction. The drawing is structured broadly around existing elements, planned or policy elements and recommended interventions. These are further expanded and illustrated in the more detailed neighbourhood sections.

Movement
The Movement layer shows the road network, highlighting the existing strategic roads, planned new roads established in the Fine Grain Road Network adopted policy and the proposed fine grain pathways or non-grid form routes. The drawing also maps the Strategic Alignment Interventions recommended by the SISA workflow.

Open Space
This layer of the framework consolidates recommendations for new open spaces to support residential uses within the study area established through the SISA, and the placemaking principles to increase the provision of more fine-grained open space and shared spaces.



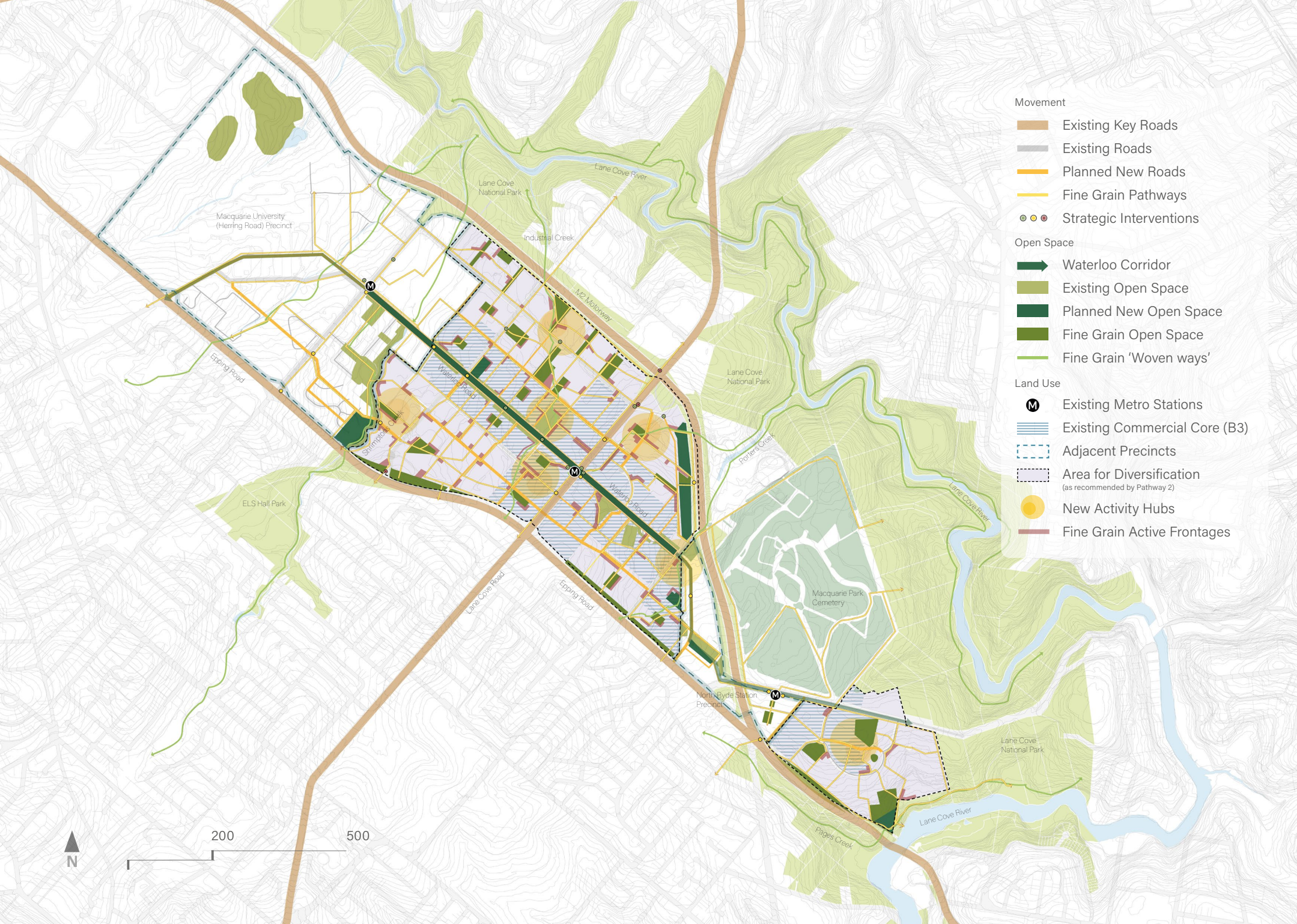
Movement Framework



Open Space Framework



Land Use Framework



STREET TYPOLOGIES

As outlined in the Integrated Transport Plan, the delivery of the objectives and design principles that have been established in this strategic report will require continued adjustment to the form and character of the road network. In line with wider policy objectives, this will include addition of new tree canopy, a prioritisation of active transport and public transport routes and systems within the road space.

Primarily, it will require the delivery of combinations of changes in land use and new and improved public space within these typical conditions to rebalance the impact of movement systems, particularly those within evolving precincts like Macquarie Park, and prioritise improved place outcomes.

The following diagrams set out the intentions behind how these transitions could come forward within the Macquarie Park Investigation Area and furthermore within each of the neighbourhoods. These are illustrative sections cutting through Waterloo Road Corridor, and Collector, Primary Local and Secondary Road typical conditions which reflect the types of existing corridors and their proposed future form. Proposed profiles will be tailored to each individual street. Below each of the typologies, the description outlines the key intended characteristics, how and by whom it might be delivered and in what way its benefits could be measured.

- Vehicular road

Public realm/Footpath

Street activation

Ground floor activation

Slow streets with pedestrian crossings

Bus Priority lane

Cycleway

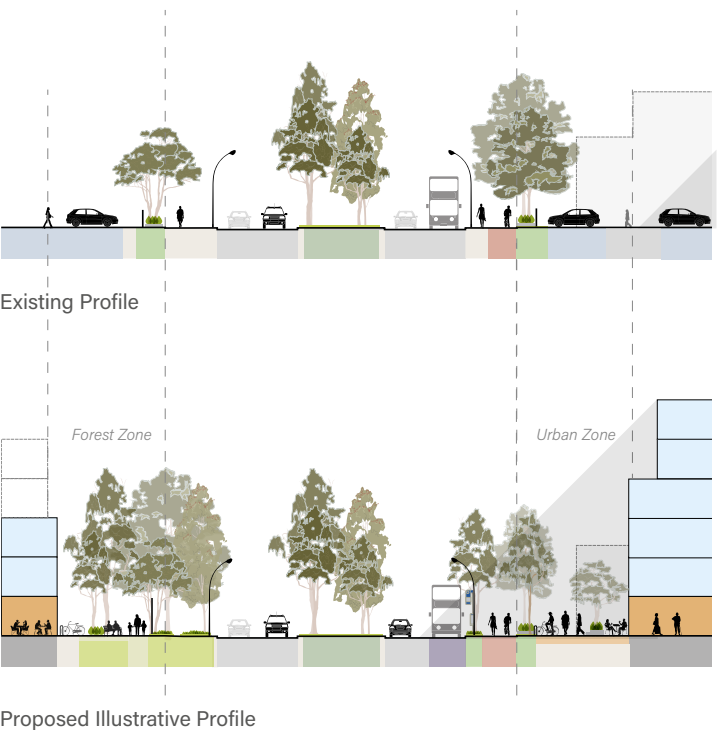
Median tree planting

Understorey and tree planting

Engineered tree planting

Parking

WATERLOO ROAD (30m)



What are the characteristics?
Primary movement function with capacity to increase its public transport and active transport role – contribution to increase biodiversity

Why is it necessary?
Increase quality of place, improve quality of active transport links, link to new public open space

How is it measured?
Integration of new tree planting into road redesign through policy, guidance to reduce building setbacks through DCP

COLLECTOR ROAD (25-30m)

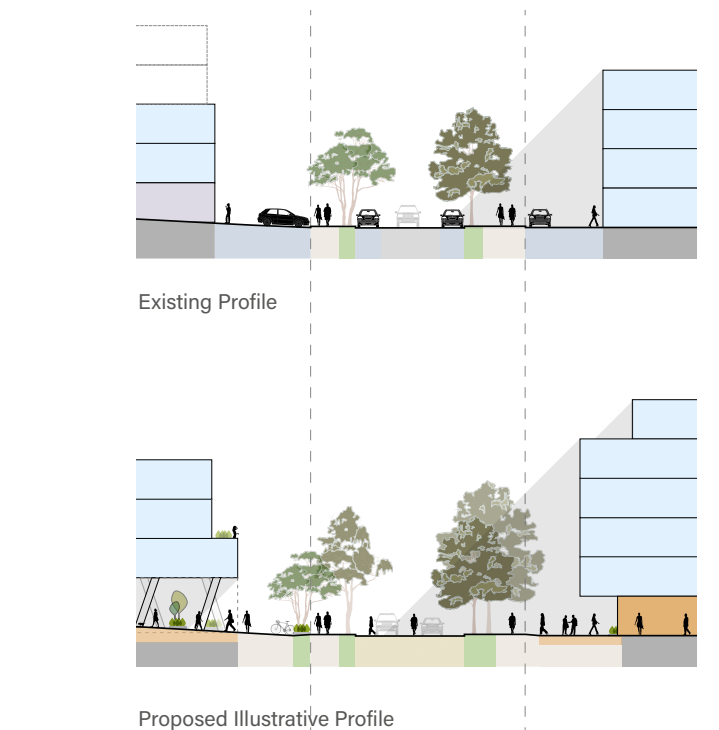


What are the characteristics?
Evolution to balanced movement and place function supporting increased active and healthy transport options

Why is it necessary?
Increase sense of place, improve quality of active transport links, reduce air quality impacts and support inter connection between different businesses and clusters

How is it measured?
Integration of new tree planting into road redesign through policy, guidance to reduce building setbacks through DCP

PRIMARY LOCAL STREETS (20m)



What are the characteristics?
Place prioritised routes with increased permeability for walking and cycling and enhanced green and blue infrastructure

Why is it necessary?
Increase sense of place, improve quality of active transport links, reduce air quality impacts, and enhance connection between residents, businesses, and others

How is it measured?
Integration of new tree planting into road redesign prioritising shared spaces, integrated loading space and reduced parking

SECONDARY STREETS (14m)



What are the characteristics?
Evolution to balanced movement and place function supporting increased active and healthy transport options

Why is it necessary?
Increase sense of place, improve quality of active transport links, reduce air quality impacts and support inter connection between different businesses and clusters

How is it measured?
Integration of new tree planting into road redesign through policy, guidance to reduce building setbacks through DCP

NEW PATHWAYS

The new movement structure proposed within Macquarie Park also proposes a network of ‘woven ways’ specifically seeking to break the regularised grid of the existing park. These pathways and routes are intended to support much greater permeability and encouragement for an increased and more diverse community within the park to connect and interact.

These pathways are key to unlocking a greater diversity of business spaces and business types – structured to support a finer grain of built form and a greater diversity of different place making uses which adjusts the predominance of the large campus building set within the plot whose social spaces are internalised.

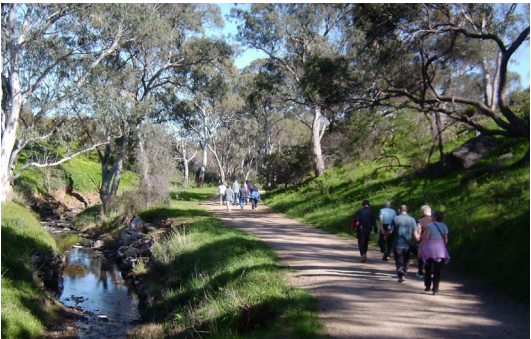
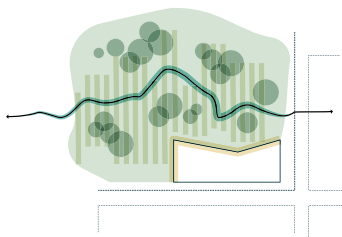
We propose three core typologies here including walking paths, woven ways and through site links. These routes will tend to follow site topography and increase linkage to the National Park, woven way linkages which reveal the alignment of the below ground creeks and are enhanced with a diversity of green and blue infrastructure. The strategic framework also promotes enhancing and adding to a network of through site links as part of the adoption of more diverse and granular built form within the different neighbourhoods.

- Vehicular Road
- Public Realm/Footpath
- Street Activation
- Ground Floor Activation
- Shared Surface Street
- Cycleway
- Green Verges
- Public Open Space
- Natural Creek

PARK LINK



Proposed Illustrative Profile



Creek Pathway

What are the characteristics?

Walking connections linking and connecting into the national park areas and areas of creek corridors

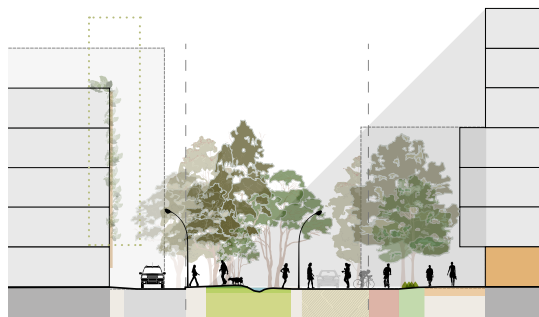
Why is it necessary?

Reduce distance and travel time between neighbourhoods and the unique natural assets of National Park

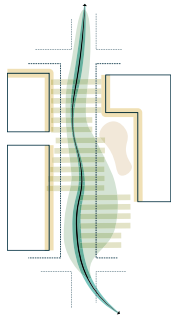
How is it measured?

Collaboration with National Parks Authority and securing right of access through adjoining development through DCP process

WOVEN WAYS



Proposed Illustrative Profile



Pedestrian Mall, Aspen, Colorado

What are the characteristics?

Connected network of none grid form links giving access to different uses within evolving block structure – strong connection to country

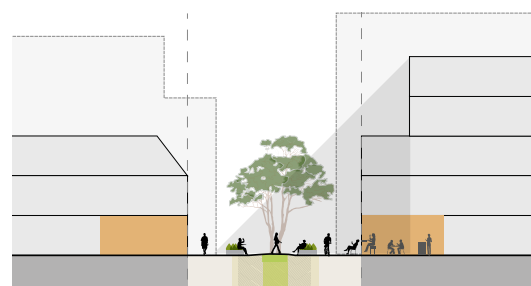
Why is it necessary?

Increase connection to country and create diversity of movement and business opportunities to support and enriched ‘under growth’

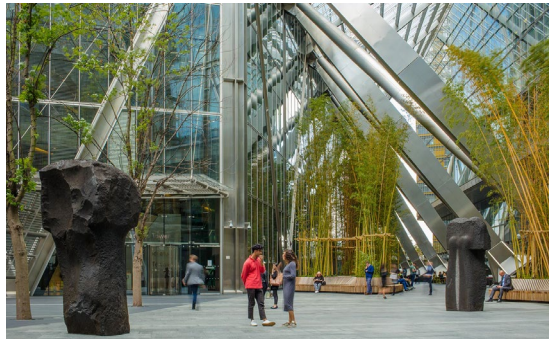
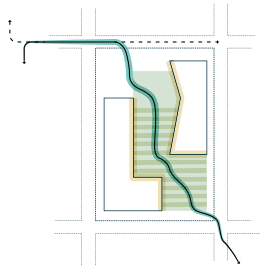
How is it measured?

DCP controls and potential FSR bonuses to encourage a diversity of ground plan activation and a coordinated plan to deliver connected routes between different land holdings

THROUGH SITE LINKS



Proposed Illustrative Profile



Broadgate Plaza, London

What are the characteristics?

Cut through links between 6-10m with supporting active frontages specifically in corners and at interfaces between different uses

Why is it necessary?

Increase quality of walking and increase opportunities for fine grain uses, smaller business space and local neighbourhood services

How is it measured?

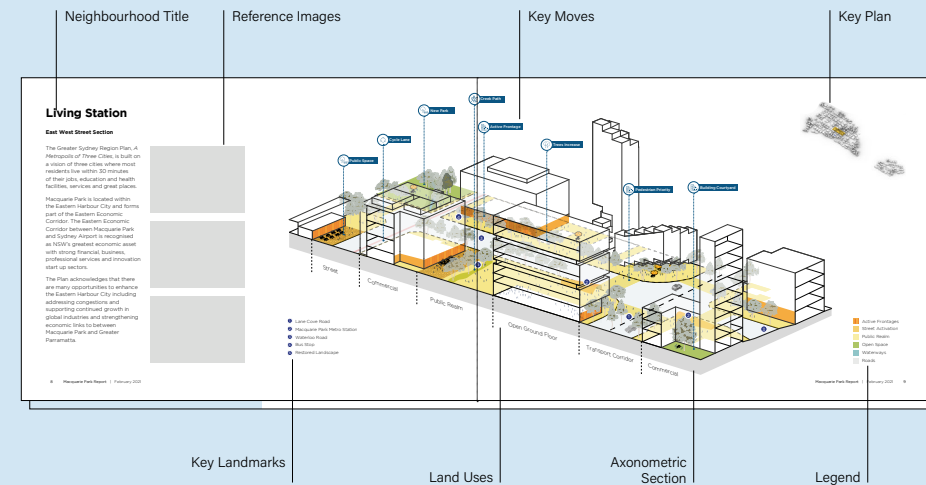
DCP controls and potential FSR bonuses to encourage a diversity of ground plan activation and a coordinated plan to deliver connected routes between different land holdings

6. MACQUARIE PARK NEIGHBOURHOODS

To deliver the principle of evolving Macquarie Park into a 'place of many places', the draft framework proposes rethinking Macquarie Park as a series of different neighbourhoods which create stronger synergies with the surrounding neighbourhoods such as Lachlans Line, Macquarie University and North Ryde. These new neighbourhoods will help create distinct character areas that support a resilient economic future and cultural diversity based on their stories over deep-time, their existing characters and their desired future characters. The neighbourhoods will also prioritise delivery and implementation of the framework and strategies with precinct specific measures alongside high level strategies.

The synergies between these neighbourhoods and the areas of transformation surrounding the investigation area are vitally important. Both in creating well integrated places and in ensuring inclusive and accessible services. The spatial framework aims to integrate and complement the existing and emerging communities across Macquarie Park. The integration with surrounding Urban Activation Precincts is vital to future success.

Rivers, creeks and other significant environmental formations have always provided natural boundaries between Aboriginal territories including clan groups and nation boundaries. In the masterplan, the creeks running through Wallumatta (Macquarie Park) help to define the boundaries between neighbourhoods. Analysis of landownership arrangements has also been undertaken and informed the definition of the Neighbourhoods.



A landownership map showing public versus private ownership has been provided as an appendix.

DEFINING THE NEIGHBOURHOODS

The definition of these areas also emerged through the analysis of existing natural elements and topographic features. To ensure the neighbourhoods were equitably distributed, we have developed criteria for what will define future neighbourhoods.

The seven neighbourhoods have been given a working name based on location as well and a name that reflects its deep-time history and a connection to the Songlines, stories and traditional knowledges of Wallumatta. High level criteria and benchmarks have been developed for each neighbourhood looking at new public open space, greenery, location of taller buildings, building design and overshadowing.

The approach to each neighbourhood is underpinned by a series of key moves which build upon the structure plan – these key moves cover:



Anchors - Commercial anchors or differentiating business cluster with a range of scales of business type



Connections to Ngurra - An accessible natural asset and connections to Ngurra, specifically the creeks



Spaces for Culture - Cultural anchors or potential to form new cultural places of gathering and/or learning



Focus of Movement - A movement structure / interchange that can encourage public transport usage and support walking*



Collaborative Partners - Aligned and assembled landowners and stakeholders working towards the delivery of the vision

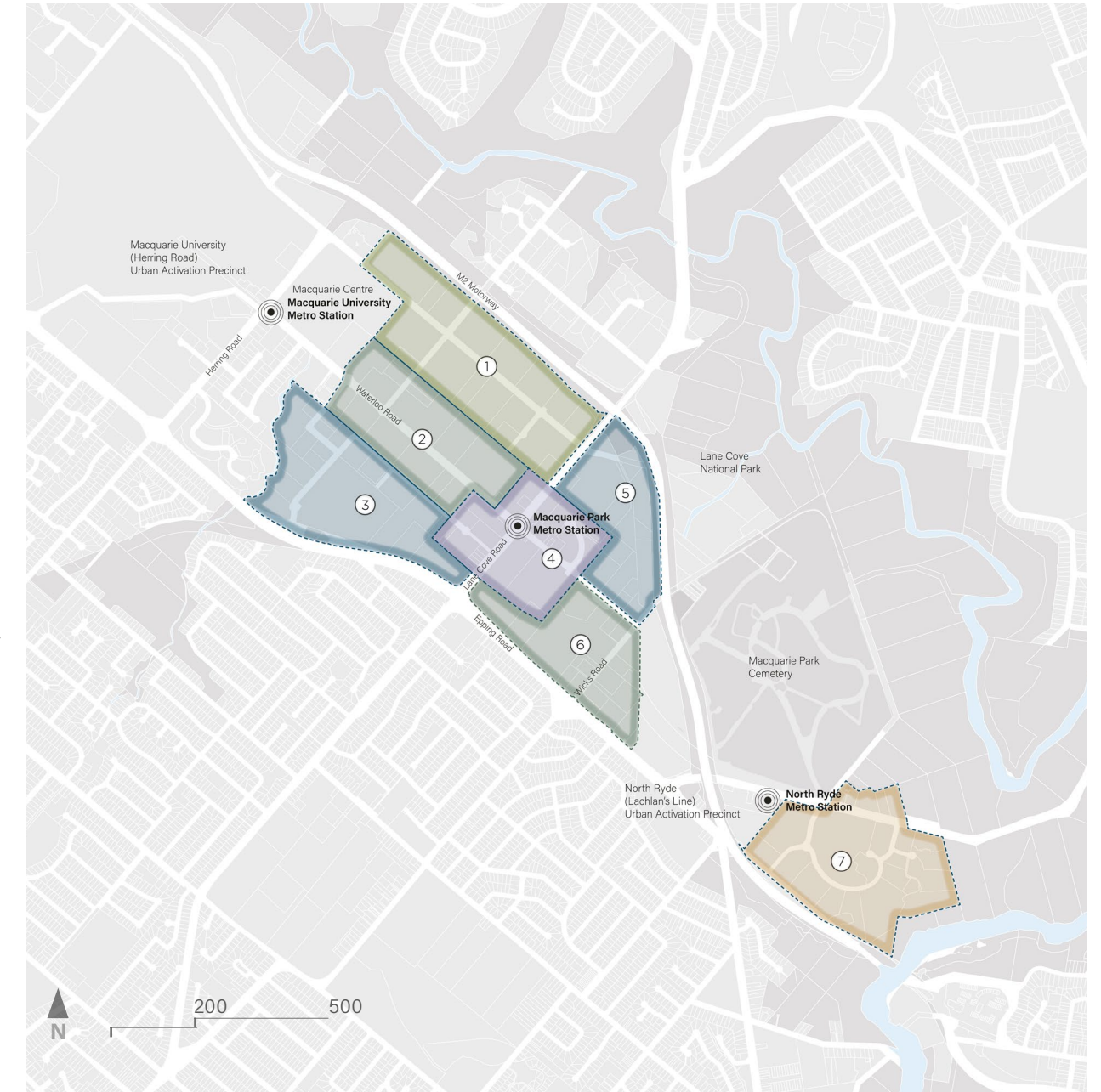


Residential Opportunity - An approximate number of dwellings that will be introduced

The seven neighbourhoods are:

1. *Ngalawala (Reciprocity)* - North Park
2. *Butbut (Heart)* - Waterloo Park
3. *Waragal Birrung (Evening Star)* - Shrimptons Quarter
4. *Gari Nawi (Saltwater Canoe)* - Macquarie Living Station
5. *Burbigal (Morning)* - Porter's Creek
6. *Garungul (Unbreakable)* - Wicks Road South
7. *Narrami Badu-Gumada (Connecting Water Spirit)* - North Ryde Riverside

*Transport interventions require further validation



1. NGALAWALA (RECIPROCITY) NORTH PARK

Ngalawala is the northern quadrant of the park, between Shrimptons Creek and Industrial Creek, adjacent to M2 Motorway. Ngalawala, meaning Reciprocity, is the foundation of Law/ Lore and an important principle for a future business focused neighbourhood.

EXISTING CHARACTERISTICS

Ngalawala is a neighbourhood characterised by its proximity to the Lane Cove National Park. It links from the rear of the Macquarie Shopping Centre down to Lane Cove Road and from the M2 Motorway alignment southward to a series of incomplete connections which run parallel to Waterloo Road.

Current movement is characterised by wide grid form roads and a predominant grid form – where roads follow the topography between the two low points of the creeks. Built form is typically large office buildings within the plot, having minimal street edge presence and large abouts of surface parking. Plots contain incontiguous tree cover but with some significant clusters of existing trees.

The alignment of Industrial Creek presents a significant existing opportunity to reveal in physical and through interpretational forms, the presence of water and its connection back the Lane Cove River.

ANCHORS AND FIXES

- Metro Station
- Lane Cove Road
- Waterloo Road



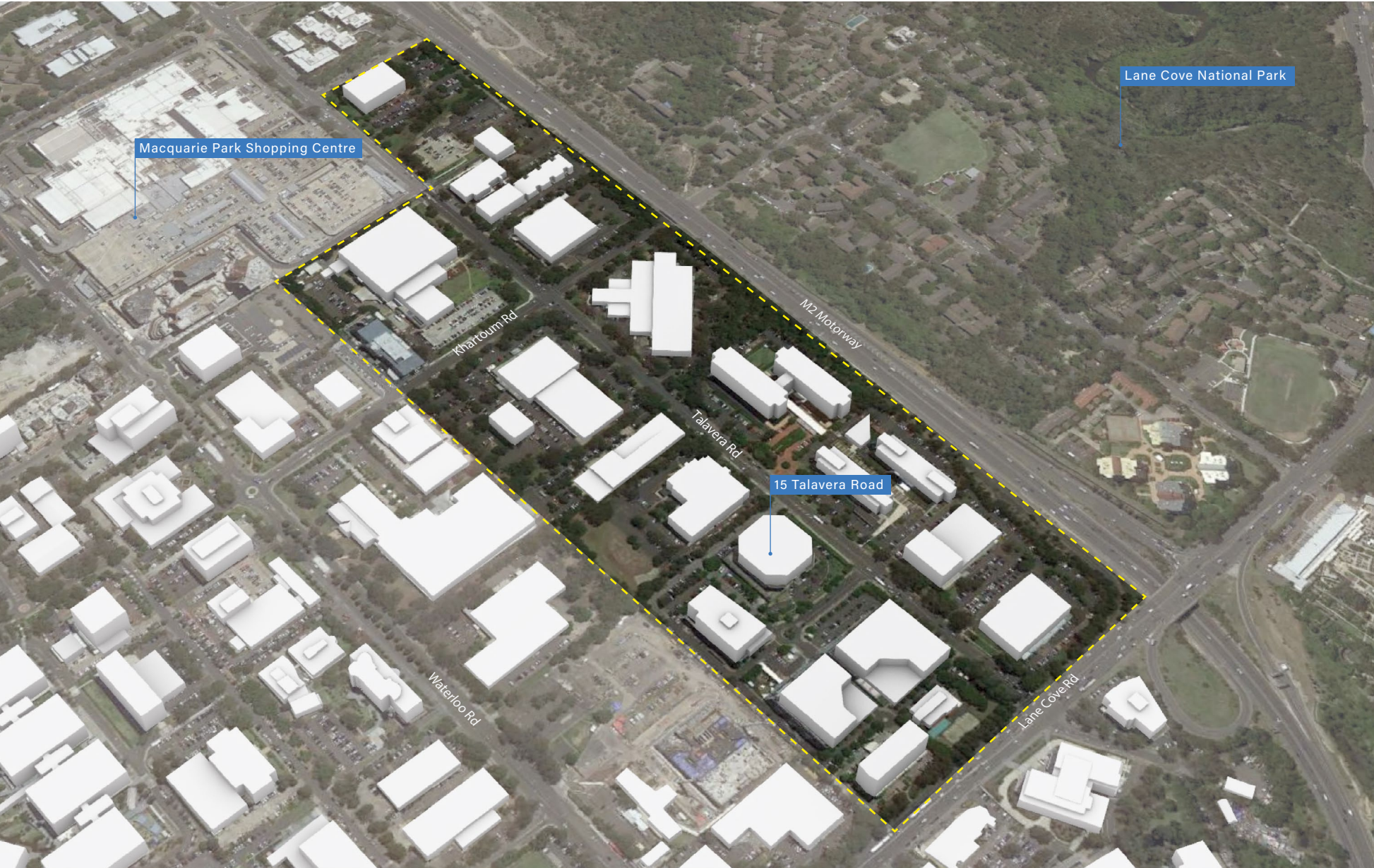
Macquarie Park Shopping Centre



Lane Cove National Park



15 Talavera Road



Existing Neighbourhood

1. NGALAWALA (RECIPROCITY) NORTH PARK
STRUCTURE PLAN

MOVEMENT FRAMEWORK

An active transit corridor (walking trails, cycle ways, possible micro mobility corridors), that weaves through and across the water corridors. Potential for bus prioritisation as part of consolidated public transport plan which links Macquarie Park Station and Macquarie University Station.

- 1.5 km of new road connectivity**
4.9 km of new fine grain pathways
- 1 Pedestrian crossing - Talavera Rd/Lane Cove Rd
 - 2 Signalised pedestrian / cyclist crossings across Talavera Road, Khartoum Road
 - 3 Reallocation of road space for buses and less on-street parking - Talavera Road
 - 4 Pedestrian grade separated overpass/landbridge over Lane Cove Road at Dirrabari Road
 - 5 Lower speed limits - Lane Cove Road, Khartoum Road
 - 6 Footpath - Talavera Rd to Fontenoy Rd

OPEN SPACE FRAMEWORK

The strategy for the public space is well defined in policy but requires adjacent landowners and public agencies to work together to deliver open space. In doing so, it can become an exemplar for delivery-focused improvements.

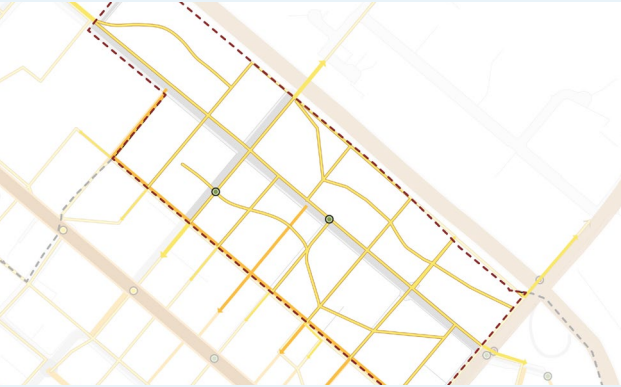
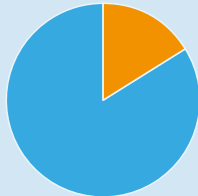
LAND USE FRAMEWORK

- 40,000 - 45,000 m² of new open space**
- A Creek restoration Park
 - B Corridor Square
 - C Local Plaza
 - D Linear Park

New Macquarie University Faculty of Engineering buildings present an opportunity to develop a cluster of public facing uses and activities. There will be a lifelong learning offer on the alignment of Industrial Creek and collaboration with Create NSW and Council to explore opportunities to activate these spaces.

450,000 - 500,000 m² of new built space
No new homes

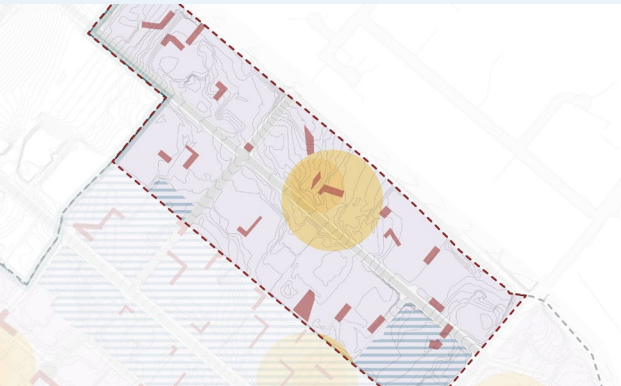
- Retail
- Commercial



Movement Framework



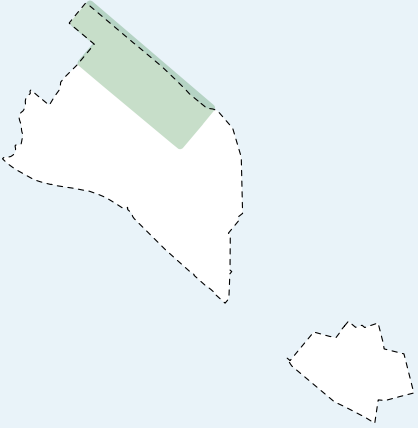
Open Space Framework



Land Use Framework



Neighbourhood Framework



- Legend**
- Movement**
- Existing Key Roads
 - Existing Roads
 - Planned New Roads
 - Fine Grain Pathways
 - Strategic Interventions
- Open Space**
- Waterloo Corridor
 - Existing Open Space
 - Planned New Open Space
 - Fine Grain Open Space
 - Fine Grain 'Woven ways'
- Land Use**
- Existing Metro Stations
 - Existing Commercial Core (B3)
 - Adjacent Precincts
 - Area for Diversification (as recommended by Pathway 2)
 - New Activity Hubs
 - Fine Grain Active Frontages

1. NGALAWALA (RECIPROCITY) NORTH PARK
KEY MOVES



AN ECONOMIC ANCHOR

The close proximity of the Macquarie Retail Centre plays an important anchor role, especially with the creation of new streets accessing the retail precinct (New North Street). The existing high profile Astra Zeneca – a pharmaceutical business forms a key business anchor.



A SPACES FOR CULTURE

Around Industrial Creek and Khartoum Road a new cluster of public facing uses will encourage gathering and meeting throughout the day this could include new performance and arts spaces around the creek line.



COLLABORATIVE PARTNERS

The strategy requires adjacent landowners to work together to create the Woven Ways. In doing so it can become an exemplar for delivery focussed on connectivity and walkability.



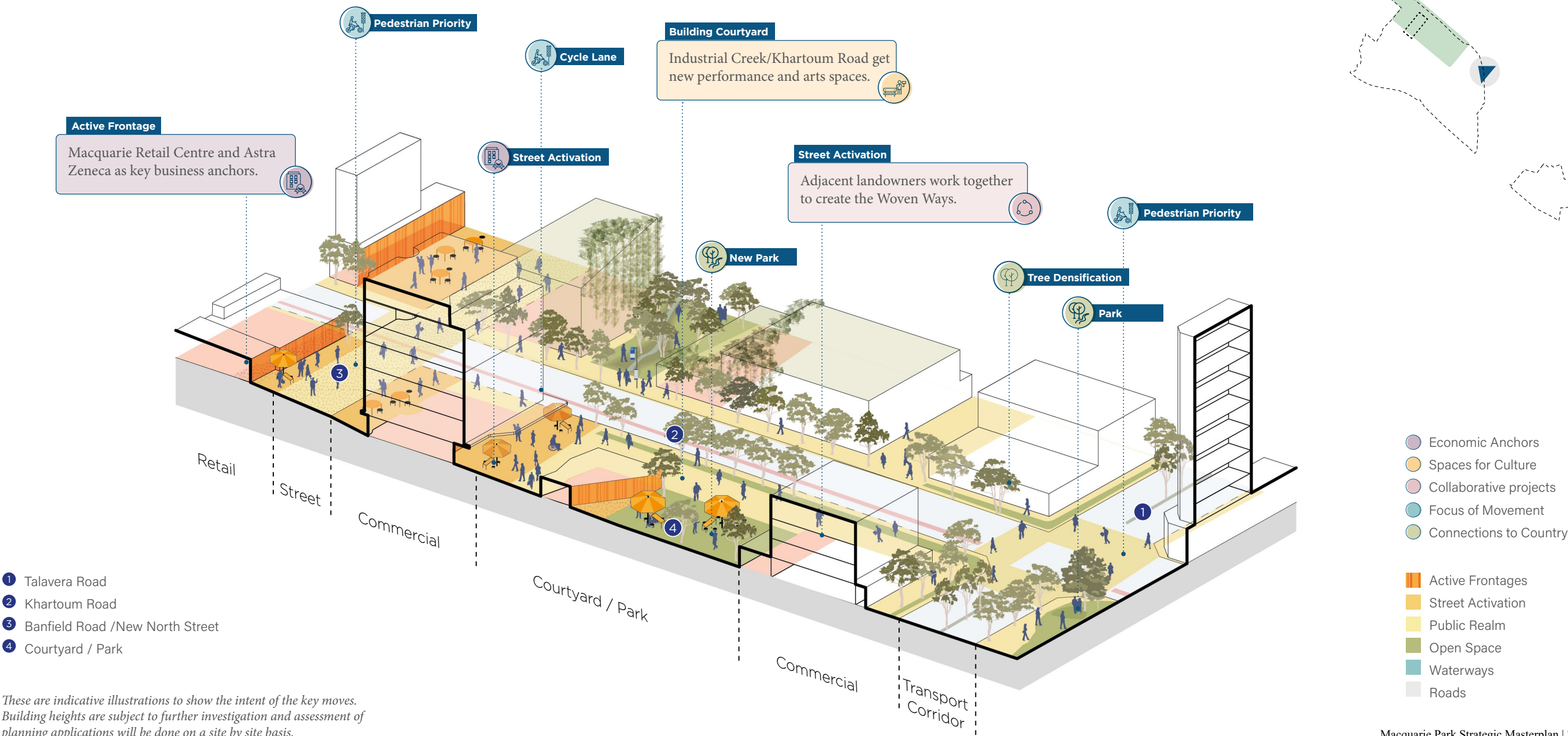
James Cook University, Townsville



Darling Harbour Public Realm, Sydney



Northshore Pavilion, Noosa North Shore



1. NGALAWALA (RECIPROCITY) NORTH PARK
KEY MOVES



A FOCUS OF MOVEMENT

Improvements to Khartoum Road will assist east-west connections within the urban environment and improve access to the National Park. The Woven Ways will link key sites and have a strong role in creating a walkable neighbourhood.

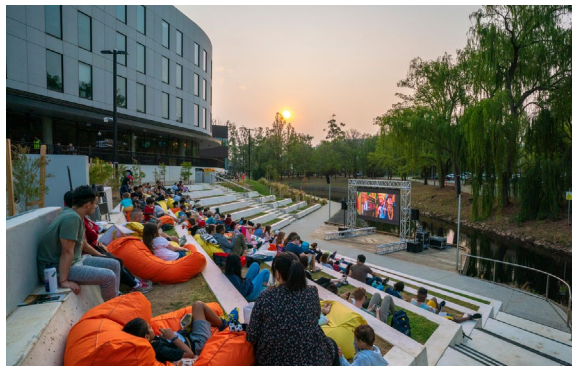


Australian National University, Canberra

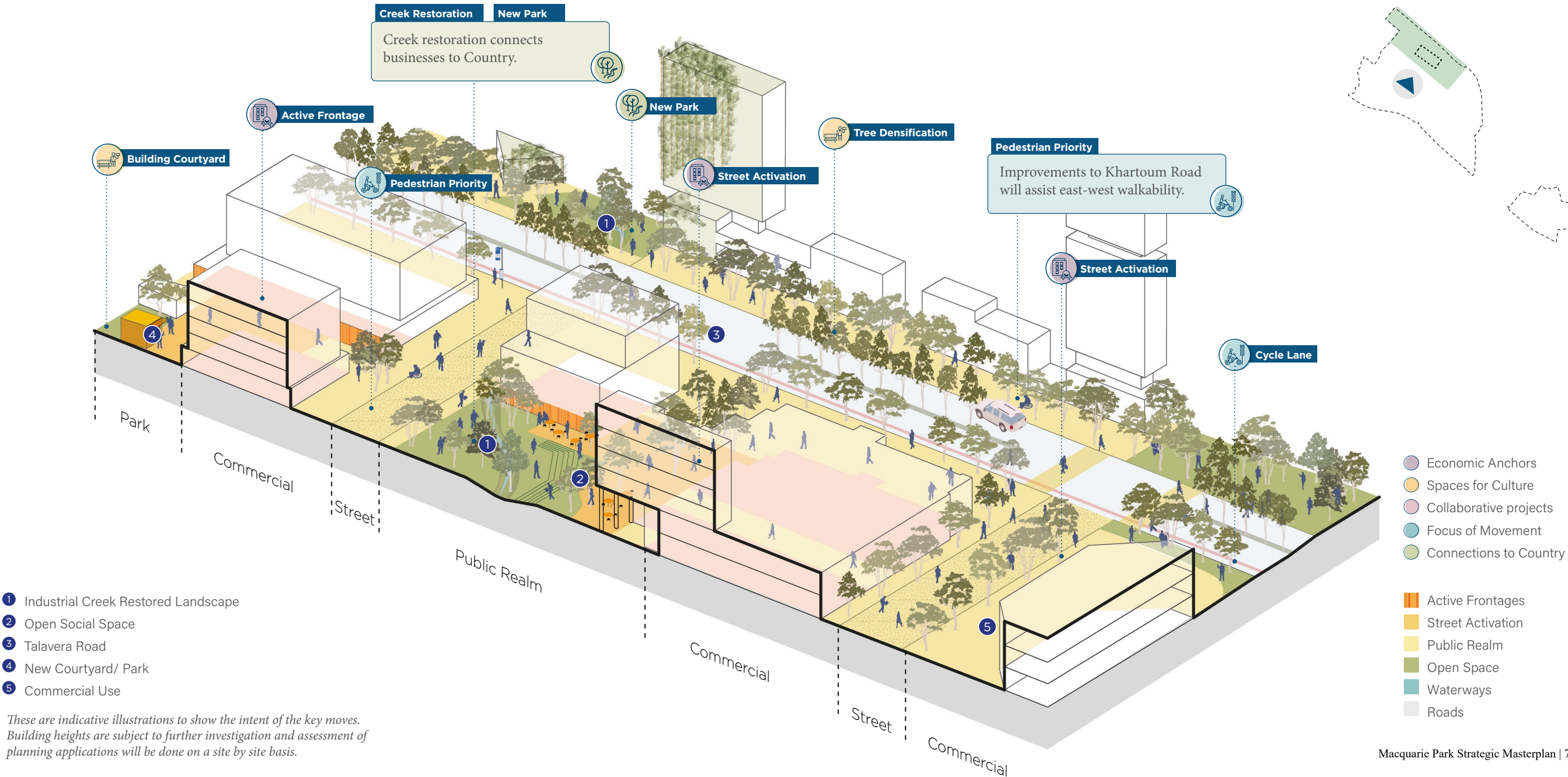


A CONNECTION TO COUNTRY

Responsive, Reciprocity, and Relationships are represented with links to open spaces, natural landscape and active/passive recreation spaces through to natural creeks including Barabiyanga (Porter's) Creek – places to connect business to Country.



Australian National University, Canberra



1. NGALAWALA (RECIPROCITY) NORTH PARK

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The Diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the Ngalawala neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- Development to bring forward capacity for a total of 13,000 jobs
- Innovation led temporary and meanwhile uses throughout the neighbourhood
- New ceremonial spaces for culture as part of development
- Delivery of finer grain street network
- Public realm plan

6-10 years

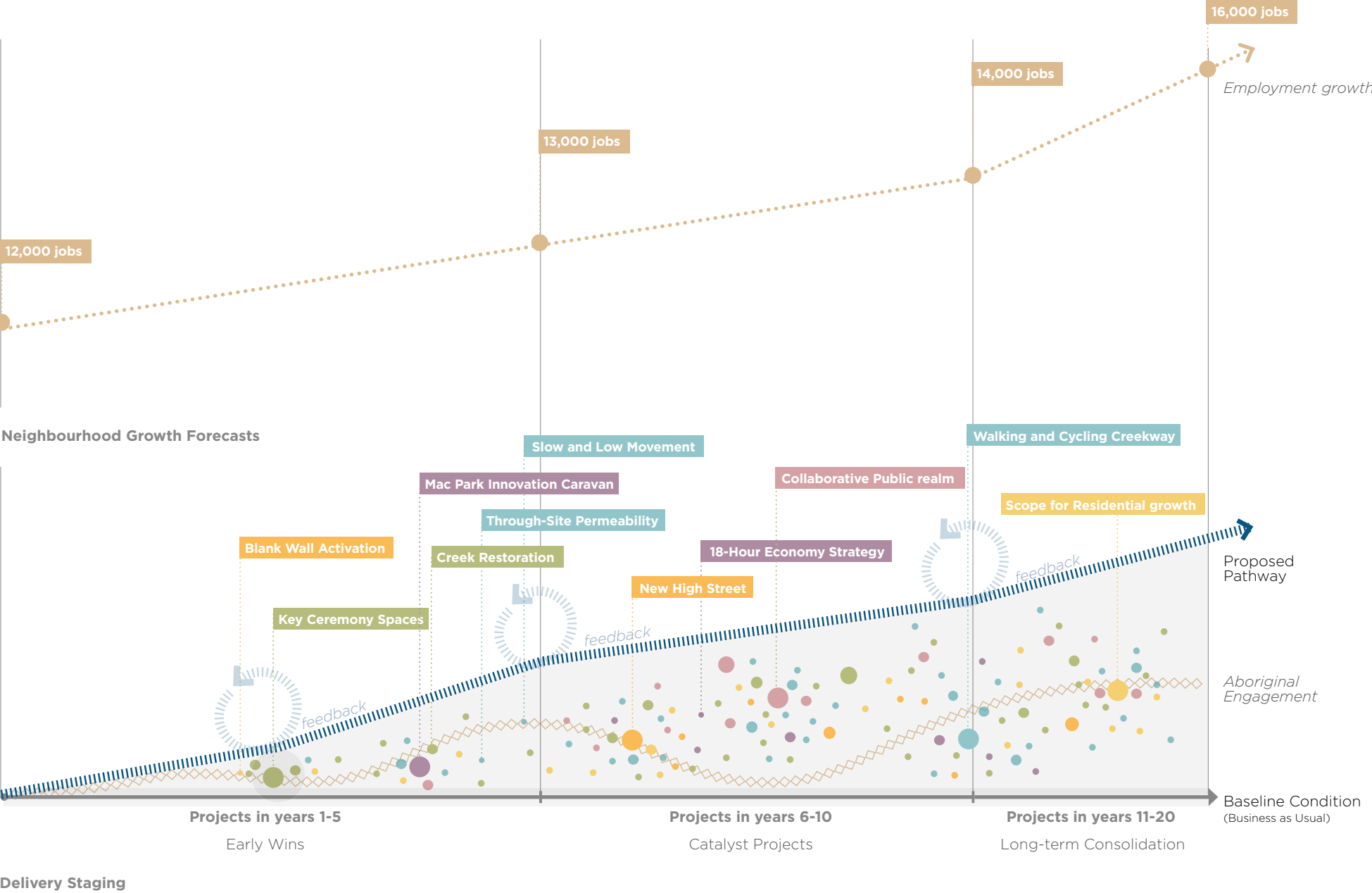
- Additional 1000 new jobs with increased diversity of type and sector and further local residential growth
- Roll out of the 18-hour economy strategy
- Delivery of permanent and temporary connectivity projects through the fine grain road network and ‘woven ways’

11+ years

- Additional 2000 new jobs in diverse sectors and scales including small scale spaces
- Delivery of new infrastructure connections
- Continuous connection along Khartoum Road

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.

- Economic Anchors
- Focus of Movement
- Spaces for Culture
- Connections to Country
- Collaborative projects
- Residential Opportunities



1. NGALAWALA (RECIPROCITY) NORTH PARK

DESIGN CRITERIA

PUBLIC OPEN SPACE AND GREEN INFRASTRUCTURE

- Deliver a series of diverse high-quality open spaces ranging in scale and form from parks, squares, plazas and liner parks, and totalling 40,000-45,000m2 in area for this neighbourhood.
- Ensure opens spaces are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- Connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- Restoring Industrial Creek and integrating the riparian corridor into Creek Restoration Park will provide the opportunity where community and its visitors can connect to Country.
- As this is a predominantly commercial neighbourhood, the open space target should aim for all areas to be within 400m of a minimum 3,000sqm park.
- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.
- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.

LOCATION OF TALLER BUILDINGS

- Taller buildings are appropriate along Talavera road as well as within the new mixed use Activity Hub at the intersection of Talavera Road and Khartoum Road to create identity and a hierarchy of place within the neighbourhood.
- Locate taller buildings where they have least shadow impact on public realm
- Locate height to take advantage of views and open space proximity. Maximise direct solar access to adjoining properties.

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.
- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and the view from along the M2.
- The design of taller buildings should allow for a permeable and interesting skyline.

- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface
- Podium design to consider weather protection and clear and identifiable entrances.

BUILDING TYPOLOGIES

- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.

OVERSHADOWING

- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.
- Open spaces are to have solar protection between 10am-2pm on the winter solstice.



Nathan Campus, Griffith University, QLD COX Architecture

Through-site links between buildings with active frontages and places for interaction.



Nathan Campus, Griffith University, QLD COX Architecture

Urban tree canopy along through-site links and landscaping integrated within development sites.

2. BUTBUT (HEART) WATERLOO PARK

Butbut will be the main central neighbourhood and open space for Macquarie Park. The Neighbourhood connects Herring Road to Macquarie Park Station, cutting across the ridges between Industrial Creek and Shrimptons Creek. It has significant potential to form a new ‘green’ focus for Macquarie Park, a connecting link, and a welcoming space of arrival to Wallumattagal Country.

EXISTING CHARACTERISTICS

Butbut is a neighbourhood characterised by its position on Waterloo Road that has the potential to become a corridor with more active frontages and mixed uses. It links from the rear of the Macquarie Shopping Centre down to Lane Cove Road and encompasses the new Transport for NSW site.

Current movement is characterised by wide grid form roads and a predominant grid form – were roads follow the topography between the two low points of the creeks. Built form is typically large office buildings within the plot, having minimal street edge presence and large abouts of surface parking. Plots contain incontiniguous tree cover but with some significant clusters of existing trees.

The new presence of Transport for NSW and an accompanying new piece of open space are opportunities to reinvigorate the neighbourhood by providing new places for active and passive recreation as well as amenity for employees around the area.

ANCHORS AND FIXES

- Waterloo Road
- Transport for NSW
- Khartoum Road



Macquarie Corporate Centre



Novartis - Street Cafe



Natura



Existing Neighbourhood

2. BUTBUT (HEART) WATERLOO PARK
STRUCTURE PLAN

MOVEMENT FRAMEWORK

Waterloo Road will be a key connecting space, linking to, and connecting the city and the wider park through a ladder of new links. Improved walking and cycling quality, and the integration of improved public transport interchanges and micro mobility options will reduce the impact of vehicle movements.

2.2 km of new road connectivity
3.4 km of new fine grain pathways

- 1 Macquarie University Bus Interchange (MUBI)
- 2 2 pedestrian crossings across Waterloo Road
- 3 BPIP Stage 1 and 2 improvements including new signalised pedestrian crossings
- 4 Waterloo Road improvements: bus lanes, fine grain street access
- 5 Lower speed limits - Waterloo Road and Khartoum Roads

OPEN SPACE FRAMEWORK

Waterloo Road will transform into a primarily place function, with intensified tree planting connecting new open spaces at Khartoum Road and Coolinga Street. Interventions will be integrated with the Waterloo Road Active Street Masterplan. Here the line of the creek is revealed with water within the public realm and enhancing green infrastructure to define and demark the route of the creeks.ad.

20,000 - 25,000 m² of enhanced open space
20,000 - 25,000 m² of new open space

- A Central Park creek restoration
- B Corridor Square
- C Local Plaza


LAND USE FRAMEWORK

Remaining primarily a working neighbourhood, new linkages and smaller block structures creates opportunities for a finer grain of employment spaces along new linkages. A new activity hub of cultural and commercial space will cluster around the Industrial Creek and its chain of parks.

Waterloo Road will become a corridor with more active frontages and potential for a night time economy focus. The Waterloo Road Active Street Masterplan, prepared by the City of Ryde, looks at the urban form and public domain along the road.

300,000 - 400,000 m² of new built space
No new homes

Retail
Commercial



Movement Framework



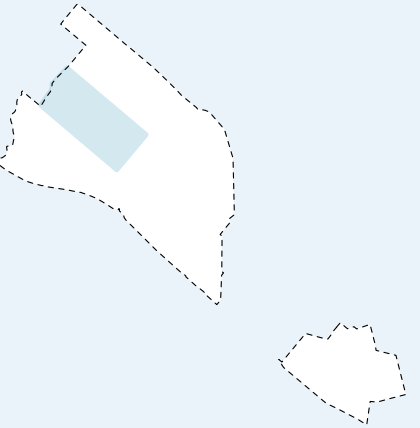
Open Space Framework



Land Use Framework



Neighbourhood Framework



Legend

Movement

- Existing Key Roads
- Existing Roads
- Planned New Roads
- Fine Grain Pathways
- Strategic Interventions

Open Space

- Waterloo Corridor
- Existing Open Space
- Planned New Open Space
- Fine Grain Open Space
- Fine Grain 'Woven ways'

Land Use

- Existing Metro Stations
- Existing Commercial Core (B3)
- Adjacent Precincts
- Area for Diversification (as recommended by Pathway 2)
- New Activity Hubs
- Fine Grain Active Frontages

2. BUTBUT (HEART) WATERLOO PARK

KEY MOVES



AN ECONOMIC ANCHOR

The new TfNSW headquarters building and associated open space forms an important new anchor. This cluster will be enhanced into a of high-profile science and technology buildings around Waterloo Road and connected to Macquarie Park metro station.



A CONNECTION TO COUNTRY

Linking across the high points and connecting the two primary creeks, Butbut can be the healthy, healing heart of Wallumatta. It will be characterised by health, medicine, pharmaceutical businesses, and educational institutions.

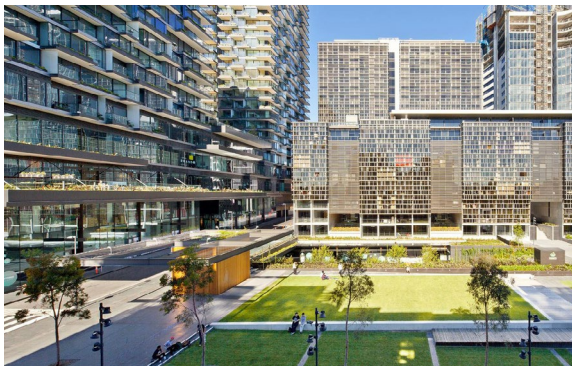


A SPACE FOR CULTURE

New Macquarie University Faculty of Engineering presents an opportunity to develop a cluster of public facing uses, with a whole life learning offer in a natural setting around the creek.



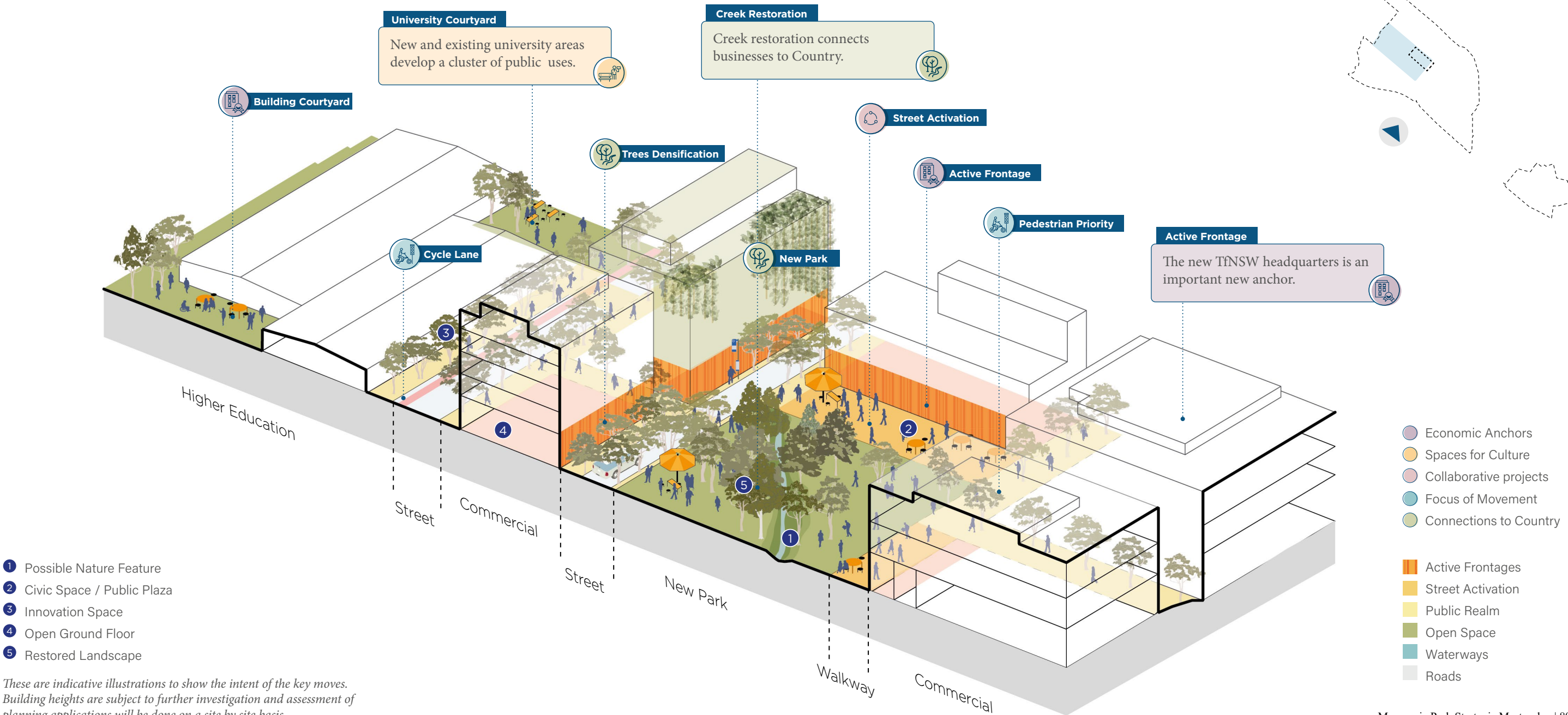
Darling Harbour Public Realm, Sydney



Central Park, Sydney



James Cook University, Townsville



2. BUTBUT (HEART) WATERLOO PARK

KEY MOVES



A FOCUS MOVEMENT

An active transit corridor with multiple walking trails, cycle ways / possible micro mobility corridors weaves through and across the topography of the corridors, with a clear consolidated public transport plan.

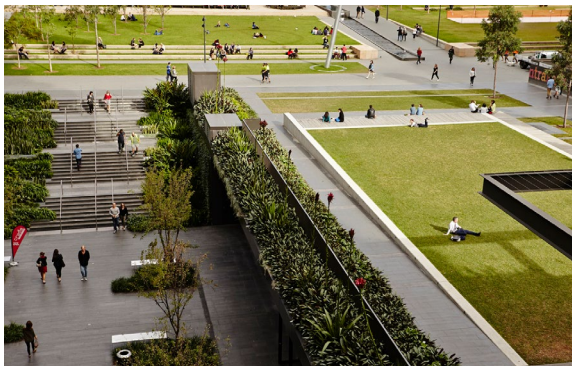


COLLABORATIVE PARTNERS

The strategy for the public space is well defined in policy but requires adjacent landowners and public agencies to work together to deliver benefits in full. In doing so it can become an exemplar for delivery focussed improvements.



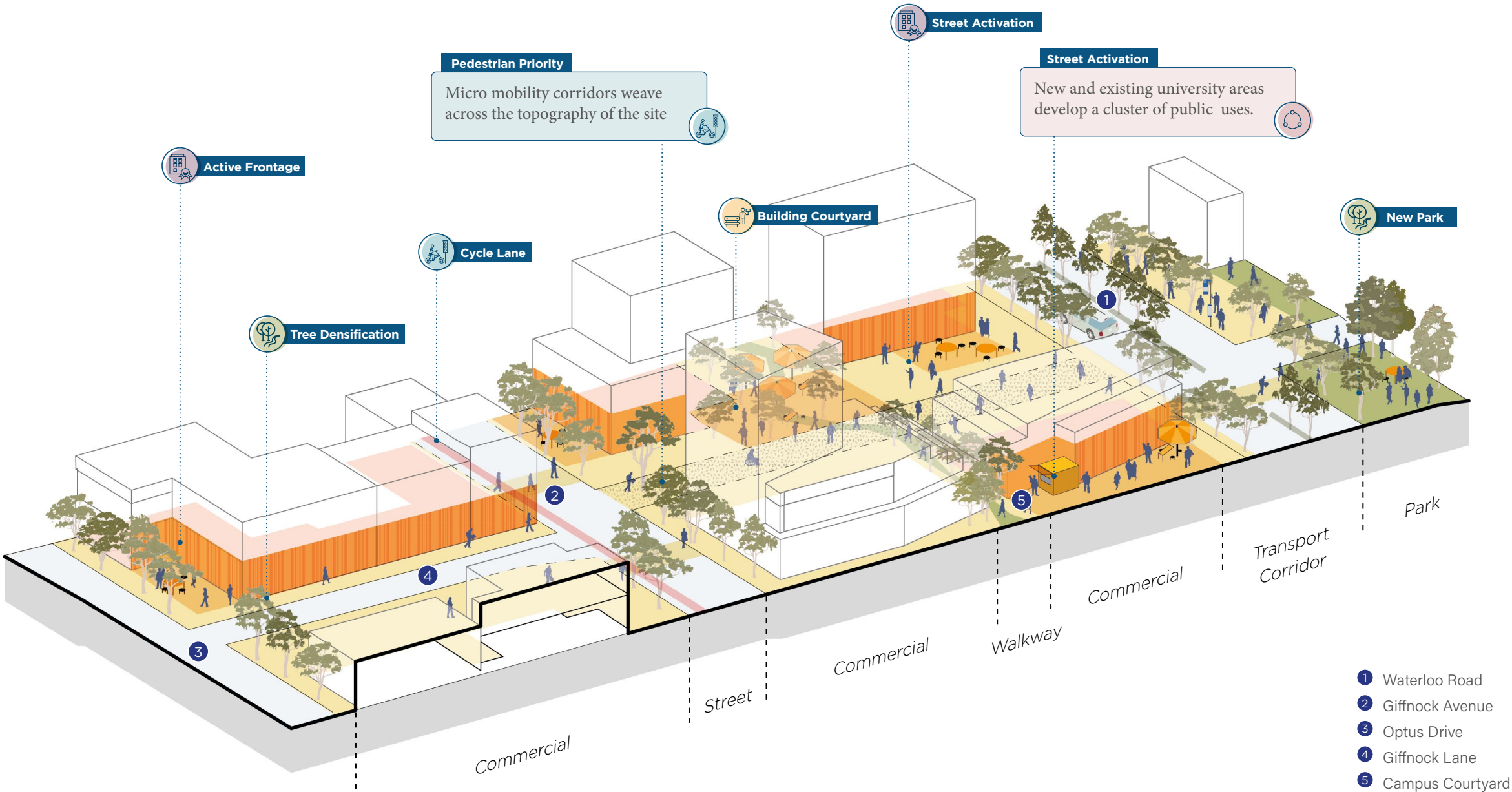
Australian National University, Canberra



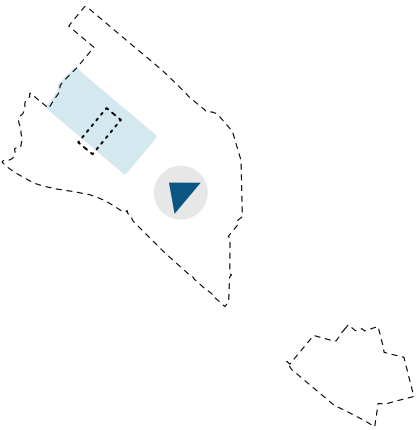
Central Park, Sydney



The Main Assembly Building and Pods, Adelaide



These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.



2. BUTBUT (HEART) WATERLOO PARK

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The Diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the ButBut neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- Development to bring forward capacity for a total of 9,100 jobs
- Innovation led temporary office spaces
- New cycle infrastructure
- Delivery of finer grain street network
- Public realm plan

6-10 years

- Additional jobs with increased diversity of type and sector
- Delivery of permanent and temporary connectivity projects through the fine grain road network and ‘woven ways’

11+ years

- Additional 600 new jobs in diverse sectors and scales including small scale spaces
- Delivery of new infrastructure connections
- Increased presence of University uses within the neighbourhood

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.

- Economic Anchors

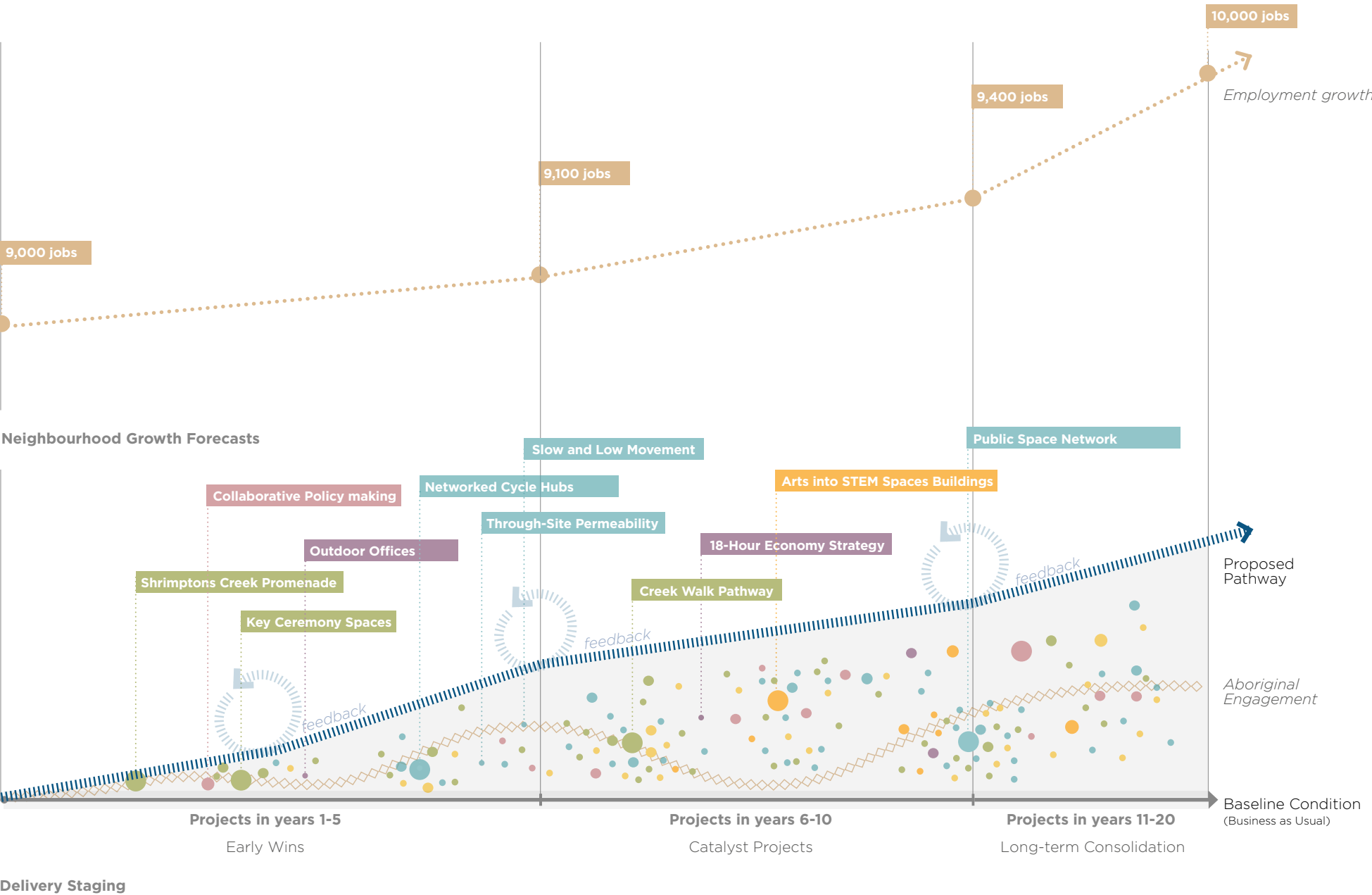
Spaces for Culture

Collaborative projects

Focus of Movement

Connections to Country

Residential Opportunities



2. BUTBUT (HEART) WATERLOO PARK

DESIGN CRITERIA

PUBLIC OPEN SPACE AND GREEN INFRASTRUCTURE

- Deliver a series of high-quality open spaces ranging in scale and form from parks, squares, plazas and linear parks, and totalling 20,000-25,000m2 in area for this neighbourhood (as well as 20,000-25,000m2 of enhanced open space).
- Ensure integration with the Waterloo Road Active Street Masterplan.
- Ensure they are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- Connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- Industrial Creek to be restored, and the riparian corridor integrated into the neighbourhood as a woven way and delineated/revealed/interpreted within Central Park.
- The linear park along Waterloo Road will provide intensified tree planting and landscaping linking key destinations and providing intimate dwell spaces.
- As this is a predominantly commercial neighbourhood, the open space target should aim for all areas to be within 400m of a minimum 3,000sqm park.
- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.

- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.

LOCATION OF TALLER BUILDINGS

- Taller buildings are appropriate along Waterloo Road as well as within the new mixed use Activity Hub located on Central Park to create identity and a hierarchy of place within the neighbourhood.
- Promote architecture that respects human scale at the street level and public domain interface
- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.
- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and along Waterloo Road.
- The design of taller buildings should allow for a permeable and interesting skyline.
- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface
- Buildings along Waterloo Road should address this key spine road and ‘gateway’ to the precinct.
- Podium design to consider weather protection and clear and identifiable entrances.

BUILDING TYPOLOGIES

- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.

OVERSHADOWING

- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.
- Open spaces are to have solar protection between 10am-2pm on the winter solstice.



Waterloo Road Masterplan, Hassell

Dwell spaces along intensely landscaped Waterloo Road. Buildings address Waterloo Road with active ground floor frontages and green elements in the facade.



Waterloo Road Masterplan, Hassell

Pedestrian and active transport routes within urbanised landscape character along Waterloo Road. Buildings with a variety of height and character and provide interest along the skyline.

3. WARAGAL BIRRUNG (EVENING STAR) SHRIMPTONS QUARTER

Waragal Birrung meaning Evening star (or Bangali meaning weaving) is the neighbourhood that sits between two creeks: the northern boundary of Shrimptons Creek and the southern boundary of Industrial Creek. The neighbourhood is characterised by its landscape edges and proximity to stations and the Waterloo-Badu Nawi open spaces. There are significant opportunities to create synergies with new communities in the Ivanhoe Estate and the wider Herring Road Precinct as it transforms over the coming years

EXISTING CHARACTERISTICS

Waragal Birrung is characterised by its proximity to Shrimpton's Creek and directly interfaces with the Macquarie University Station (Herring Road) Precinct, particularly the Ivanhoe Estate. Shrimpton's Creek is a 3.3km-long tributary of the Lane Cove River. The Shrimpton's Creek Corridor is undergoing revitalisation to enhance access to open spaces that link up with the corridor such as Wilga Park, Elouera Reserve and the Shrimptons Creek Riparian Corridor.

The Optus campus is also located in this neighbourhood. It is an 8ha site in Macquarie Park that features access to green spaces, dining options and access to the nearby Macquarie University Metro station. Optus also has a dedicated bus service for employees.

ANCHORS AND FIXES

- Shrimpton's Creek
- Optus



Optus Campus



Lyonpark Road



Shrimptons Creek



Existing Neighbourhood

3. WARAGAL BIRRUNG (EVENING STAR) SHRIMPTONS QUARTER

STRUCTURE PLAN

MOVEMENT FRAMEWORK

Network of active transport and links to open space utilising natural corridors and pathways (Muru) links to Ivanhoe Estate and significant opportunity to deliver Woven Ways via the Fine Grain Road Network and publicly accessible courtyards and shared spaces.

1.5 km of new road connectivity
3.5 km of new fine grain pathways

- 1 Deliver finer grain street network
- 2 Deliver comprehensive network of dedicated cycle & micro-mobility connections
- 3 Grade separated movements at Epping Road westbound into Lyon Park Road.

OPEN SPACE FRAMEWORK

An enhanced and highlighted creekline to draw attention to Country and the natural environment will be complemented by new spaces throughout the neighbourhood and a linear park along Epping Road, which will act as a buffer between activity hubs and the major transport route.

25,000 - 30,000 m² of new open space

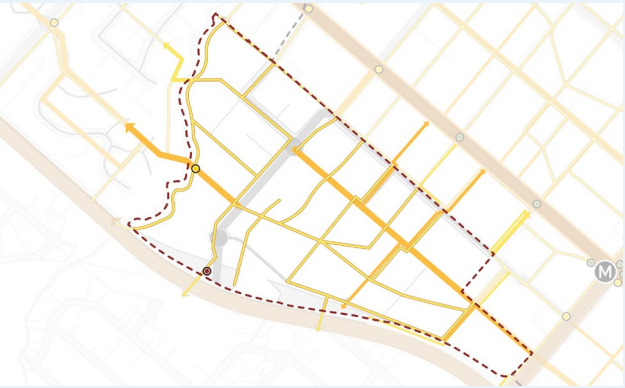
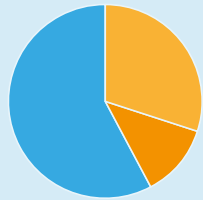
- A Shrimptons Creek Promenade
- B Creek restoration Park
- C Linear Park
- D Campus Plaza

LAND USE FRAMEWORK

The future land use will interface with the Ivanhoe Estate and the adjacent Optus campus to create a new hub of activity and facilitate the growth of new and existing residential communities. Commercial land uses will be complemented by retail to serve the needs of both residential and worker communities.

600,000 - 650,000 m² of new built space
2,100 - 2,600 new homes

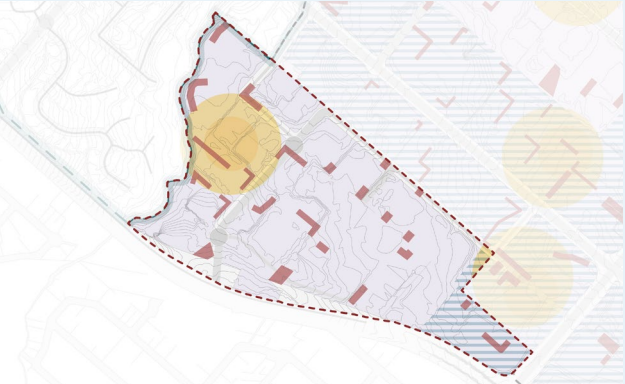
- Residential
- Retail
- Commercial



Movement Framework



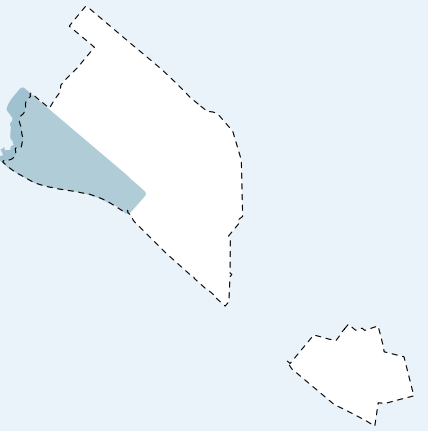
Open Space Framework



Land Use Framework



Neighbourhood Framework



- Legend
- Movement
- Existing Key Roads
 - Existing Roads
 - Planned New Roads
 - Fine Grain Pathways
 - Strategic Interventions
- Open Space
- Waterloo Corridor
 - Existing Open Space
 - Planned New Open Space
 - Fine Grain Open Space
 - Fine Grain 'Woven ways'
- Land Use
- Existing Metro Stations
 - Existing Commercial Core (B3)
 - Adjacent Precincts
 - Area for Diversification (as recommended by Pathway 2)
 - New Activity Hubs
 - Fine Grain Active Frontages

3. WARRAGAL BIRRUNG (EVENING STAR) SHRIMPTONS QUARTER

KEY MOVES



AN ECONOMIC ANCHOR

The presence of the Optus Campus is an important economic anchor for the precinct. Clustering further telecommunications business and increasing the diversity of workspace will enrich the offer.



A SPACE FOR CULTURE

The interaction between a new residential community around the Ivanhoe Estate, linked by a new footbridge, and the commercial uses of the precinct create an opportunity for cultural spaces to mix these previously separate users.



RESIDENTIAL OPPORTUNITIES

New residential community in the Ivanhoe Estate and in Shrimptons Quarter are supported with space activation and community facilities.



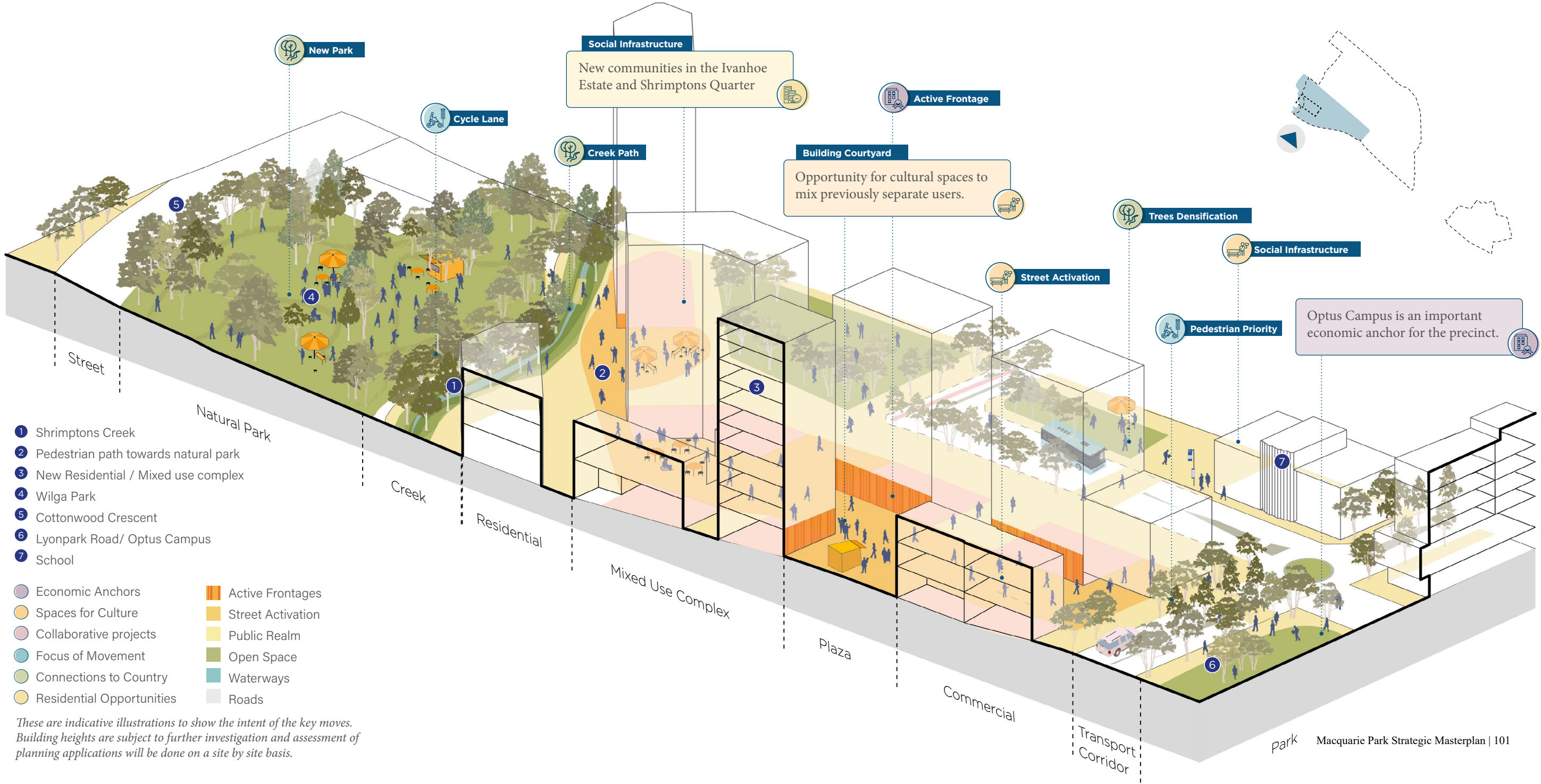
Methodist Ladies College, Melbourne



Australian National University, Canberra



Peel Apartments, Melbourne



3. WARAGAL BIRRUNG (EVENING STAR) SHRIMPTONS QUARTER

KEY MOVES



A FOCUS OF MOVEMENT

Network of active transport and links to open space utilising natural corridors; links to Ivanhoe Estate and significant opportunity to deliver woven ways via the FGRN and publicly accessible courtyards and shared spaces.



A CONNECTION TO COUNTRY

Creek regeneration of Industrial Creek and increased access to Shrimptons Creek creates opportunity for innovation and interconnections between the university & business community create opportunities to weave uses and places together.

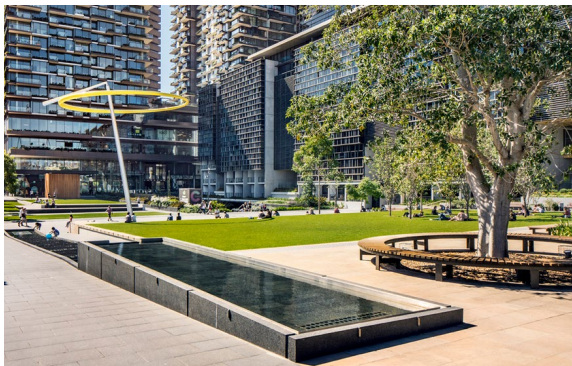


COLLABORATIVE PARTNERS

Significant opportunity to forge a wider collaborative linkage between Optus and the wider technology cohort in the neighbourhood and precinct. Collaborative working with new residential community in the Ivanhoe Estate should be supported.



Darling Harbour Public Realm, Sydney



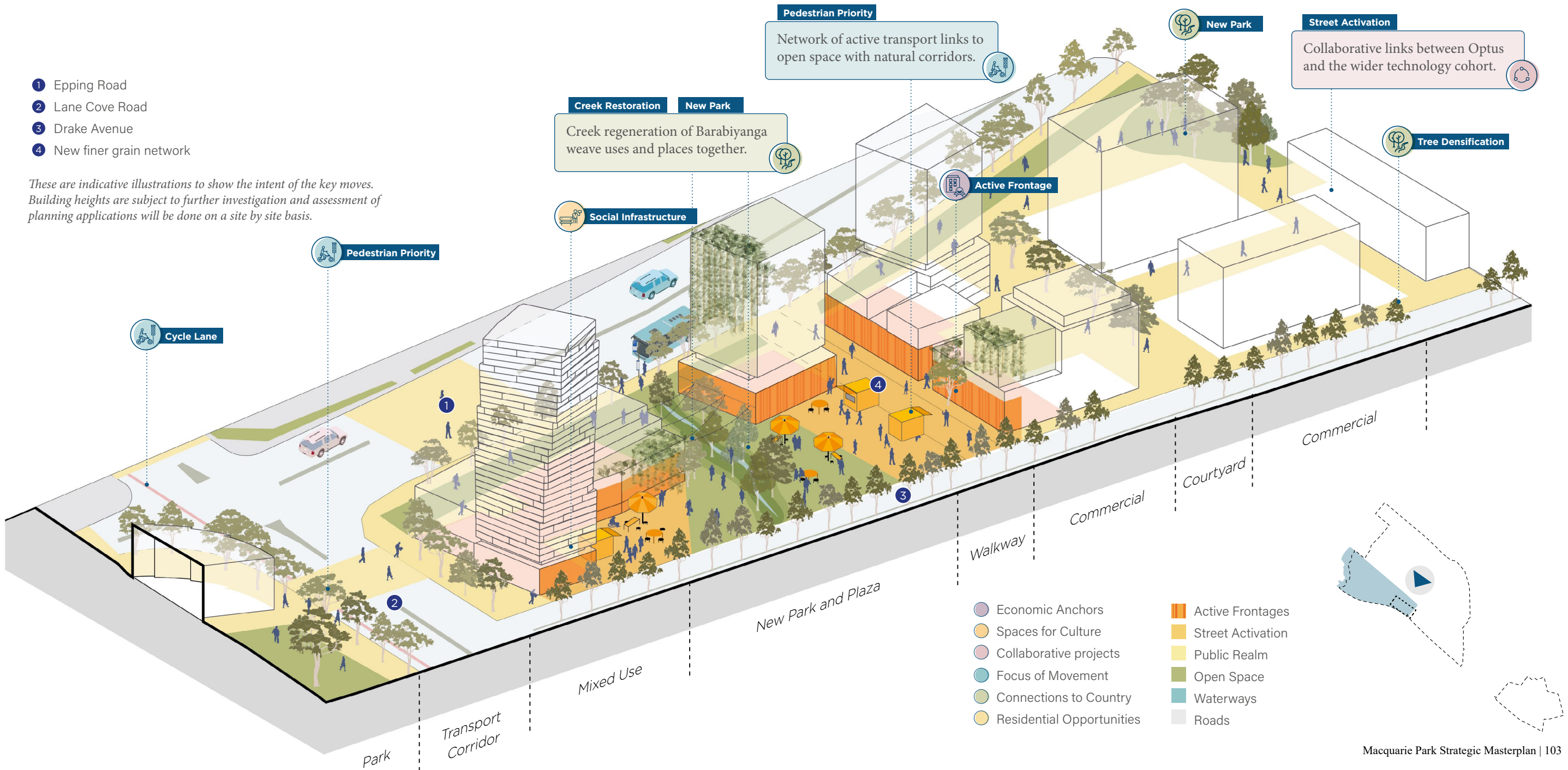
Central Park, Sydney



Darling Harbour Public Realm, Sydney

- 1 Epping Road
- 2 Lane Cove Road
- 3 Drake Avenue
- 4 New finer grain network

These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.



3. WARAGAL BIRRUNG (EVENING STAR) SHRIMPTONS QUARTER

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The Diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the Waragal Birrung neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- Expansion and diversification of employment spaces to create up to 400 new jobs
- Creation of the Optus Theatre
- Frontages and active uses facing the Creek
- Delivery of finer grain street network
- Public realm plan

6-10 years

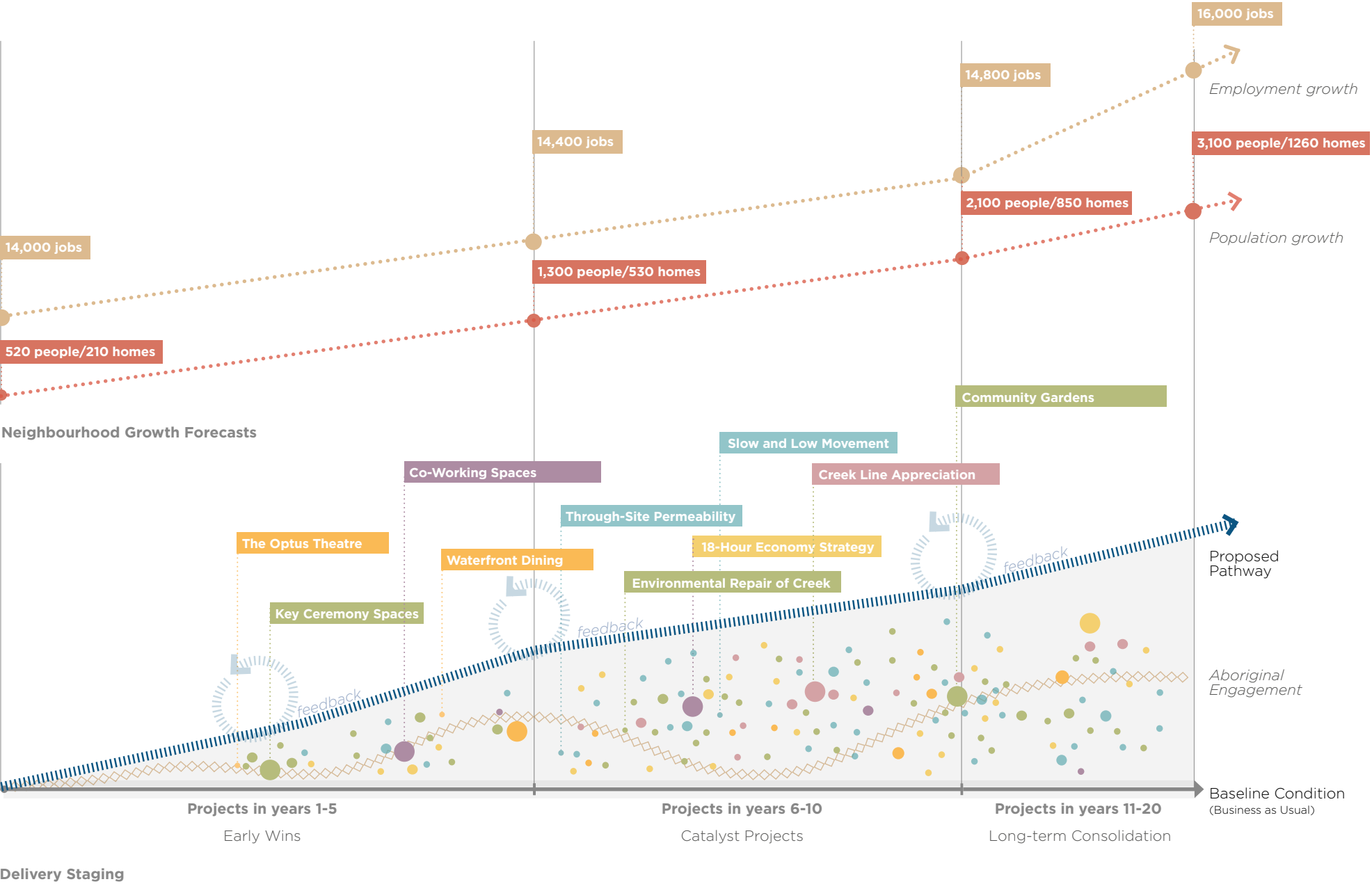
- Additional jobs with increased diversity of type and sector and further local residential growth
- Delivery of through site links in Optus Campus
- Continued environmental upgrades to the Creek

11+ years

- Additional 2000 new jobs in diverse sectors and scales including small scale spaces
- Additional 2,600 dwellings
- Delivery of new infrastructure connections
- Roll out of 18-hour economic strategy

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.

- Economic Anchors
- Focus of Movement
- Spaces for Culture
- Connections to Country
- Collaborative projects
- Residential Opportunities



DESIGN CRITERIA

PUBLIC OPEN SPACE AND GREEN INFRASTRUCTURE

- Deliver a series of high-quality open spaces ranging in scale and form from parks, promenades, plazas and linear parks, and totalling 25,000-30,000m2 in area for this neighbourhood.
- Ensure opens spaces are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- Connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- Industrial Creek is to be restored, and the riparian corridor integrated into the neighbourhood as a woven way and delineated/revealed/interpreted within parks that are along it.
- The natural riparian corridor of Shrimptons Creek forms the northern edge of the neighbourhood and is to be enhanced with improved pedestrian and cycle links to adjacent development areas forming the Shrimptons Creek Promenade.
- Linear Parks will form the landscaped western edge of the neighbourhood
- Provide dense landscape and tree planting to create a green buffer to Epping Road
- As this is neighbourhood has a considerable number of residential dwellings, the open space target should aim for all areas to be within 200m of a minimum 1,500sqm park (3,000sqm is preferred).

- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.
- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.
- Provide dense landscape and tree planting to create a green buffer to Epping Road.

LOCATION OF TALLER BUILDINGS

- Taller buildings are appropriate along the Shrimptons Creek corridor landscaped edge as well as within the new mixed use Activity Hub located close by to create identity and a hierarchy of place within the neighbourhood. This location also allows the residential population to experience the benefit of living near natural open space, active transport links and the adjacent development areas.
- Locate taller buildings where they have least shadow impact on public realm
- Locate height to take advantage of views and open space proximity. Maximise direct solar access to adjoining properties.

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.

- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and along Shrimptons Creek.
- The design of taller buildings should allow for a permeable and interesting skyline.
- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate and provide passive surveillance to these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface
- For development near Shrimptons Creek, orientate building entries towards the creek to encourage activation and passive surveillance.
- Podium design to consider weather protection and clear and identifiable entrances.

BUILDING TYPOLOGIES

- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.
- Residential dwellings, including residential only buildings, are ideally located near Shrimptons Creek so the residential population can experience the benefit of living near open space. Residential buildings with commercial podiums are encouraged within the Waragal Birrung Activity Hub and towards the Gari Nawi Activity Hub.
- Mixed use buildings with cultural and community facilities as well as residential and commercial uses are to be considered
- Encourage diversity of apartment types, sizes, and layouts to accommodate households of all ages, abilities, sizes and needs, including increased demands on space and acoustic privacy due to more people working from home.
- Use changes in scale and built form to create architectural interest and diversity and enhance relationship with the public domain.

OVERSHADOWING

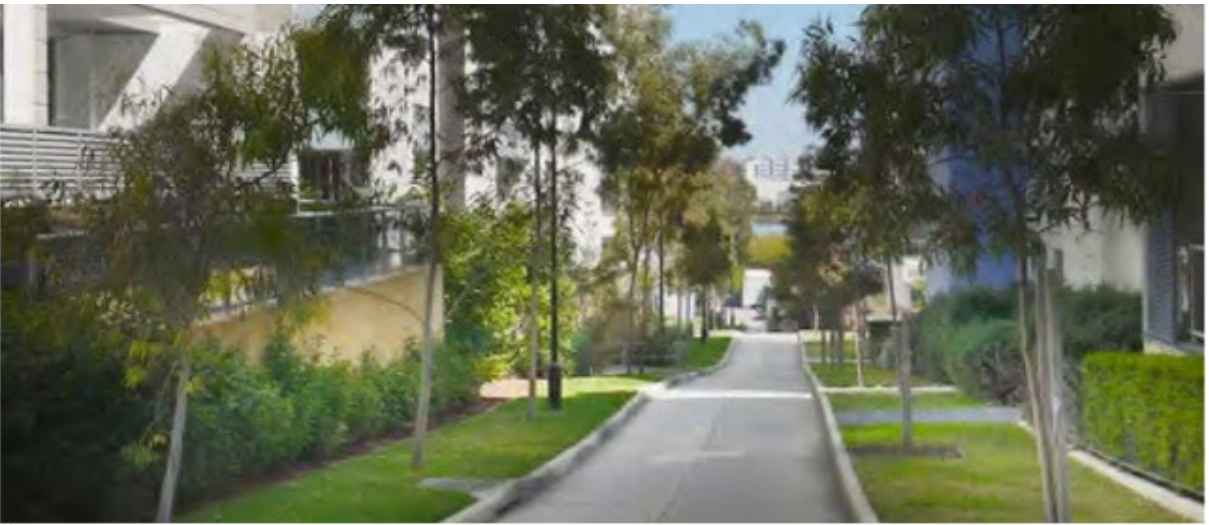
- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.
- Open spaces are to have solar protection between 10am-2pm on the winter solstice.



Create built form variety and interest through a diversity of built form shapes, heights and typologies



Semi-public courtyard connects to the surrounding neighbourhood and offers landscape opportunities and through-site links



Windows and balconies should overlook through-site connections and woven ways to provide passive surveillance

4. GARI NAWI (SALTWATER CANOE) MACQUARIE LIVING STATION

Gari Nawi, meaning the saltwater canoe, is the Southern end of Nawi or Waterloo Corridor. The Macquarie Living Station is characterised by high levels of metro connectivity and access to strategic bus routes. The neighbourhood has capacity to develop into a denser and more integrated place to support economic vitality.

EXISTING CHARACTERISTICS

Gari Nawi is located around the Macquarie Park Metro Station. It contains the intersection of Lane Cove Road and Waterloo Road. Aside from the Metro Station, the neighbourhood also contains the Macquarie University School of Engineering.

The intersection of Lane Cove Road and Waterloo Road is a key node for the whole of Macquarie Park. Current movement is characterised by wide grid form roads and a predominant grid form. While a key node, there are limited pedestrian crossings in the neighbourhood, restricting pedestrian movement while facilitating vehicle movement.

ANCHORS AND FIXES

- Metro Station
- Lane Cove Road
- Waterloo Road



Lane Cove Road



Waterloo Road



Macquarie Park Metro Station



Existing Neighbourhood

4. GARI NAWI (SALTWATER CANOE) MACQUARIE LIVING STATION

STRUCTURE PLAN

MOVEMENT FRAMEWORK

Centred around the junction of Waterloo Road and Lane Cove Road, a fine grain network of paths provides an alternative, and more amenable, pedestrian environment to and from the metro station.

- 1.4 km of new road connectivity
2.3 km of new fine grain pathways
- 1 Macquarie Park to Randwick via Train Link
 - 2 Pedestrian crossings - Lane Cove Road/Waterloo Road
 - 3 Grade separated pedestrian crossing of Lane Cove Road at Waterloo Road
 - 4 BPIP Stage 1 and 2 improvements
 - 5 Waterloo Road improvements: bus lanes, fine grain street access
 - 6 Lower speed limits - Waterloo Road, Lane Cove Road
 - 7 Pedestrian grade separated overpass/landbridge over Lane Cove Road at Hyundai Drive

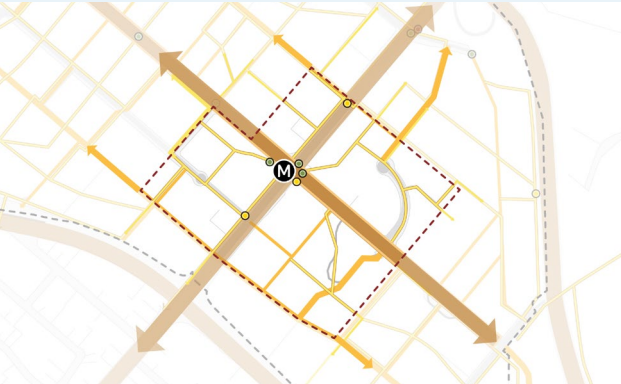
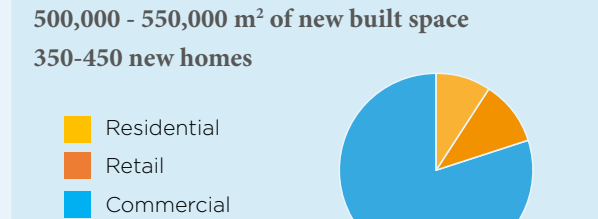
OPEN SPACE FRAMEWORK

The enhanced public domain along Waterloo Road (as identified in the Waterloo Road Active Street Masterplan) will strengthen the landscaping and open space amenity in this neighbourhood. The Porters Creek corridor will link open spaces throughout the precinct.

- 7,000 - 8,000 m² of enhanced open space
2,000 - 3,000 m² of new open space
- A Thomas Holt Drive Park
 - B Local Plaza
 - C Corridor Square

LAND USE FRAMEWORK

Active frontages that lead to and from key open spaces and transport hubs will create a vibrant and bustling environment, emblematic of a true commercial centre. The careful introduction of residential will facilitate the development of the neighbourhood into a living station.



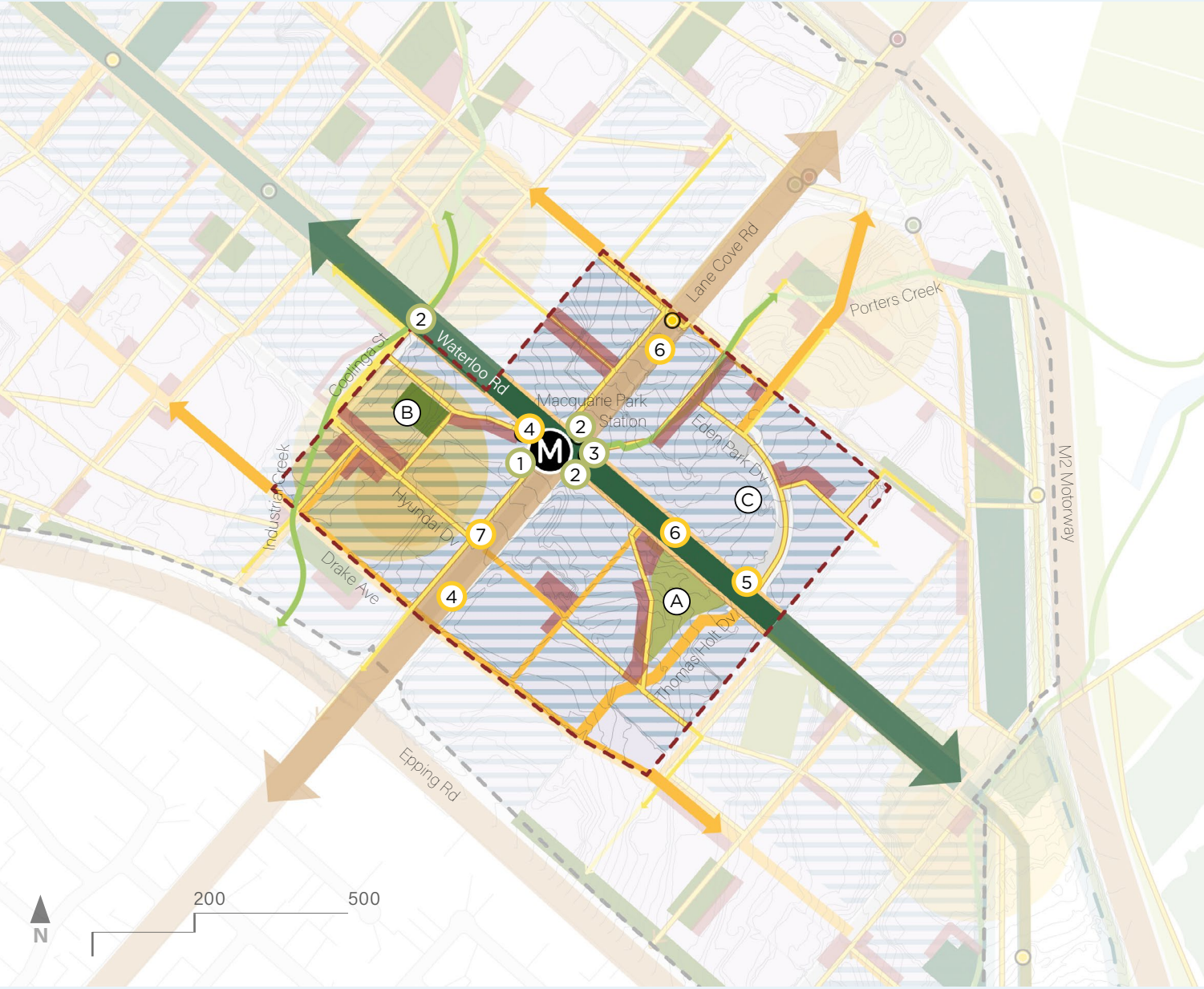
Movement Framework



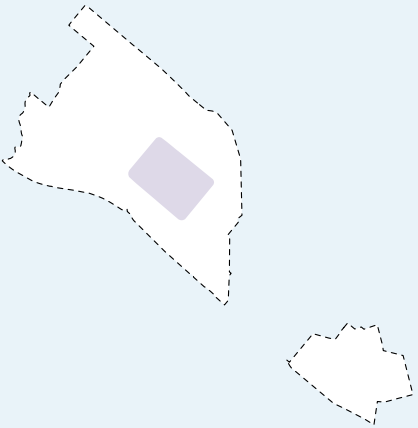
Open Space Framework



Land Use Framework



Neighbourhood Framework



- Legend
- Movement
- Existing Key Roads
 - Existing Roads
 - Planned New Roads
 - Fine Grain Pathways
 - Strategic Interventions
- Open Space
- Waterloo Corridor
 - Existing Open Space
 - Planned New Open Space
 - Fine Grain Open Space
 - Fine Grain 'Woven ways'
- Land Use
- Existing Metro Stations
 - Existing Commercial Core (B3)
 - Adjacent Precincts
 - Area for Diversification (as recommended by Pathway 2)
 - New Activity Hubs
 - Fine Grain Active Frontages

4. GARI NAWI (SALTWATER CANOE) MACQUARIE LIVING STATION

KEY MOVES



A SPACE FOR CULTURE

Intensive development in the neighbourhood should include the delivery of cultural spaces and activity areas which benefit from evening footfall and connectivity to metro.

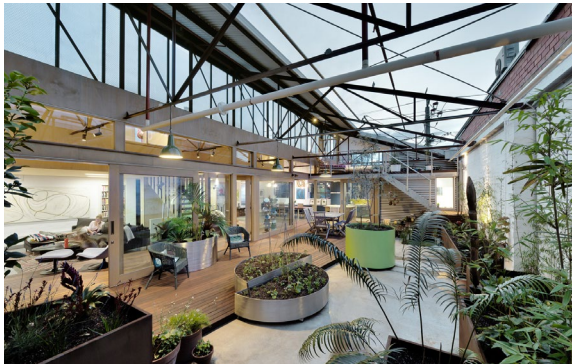


Australian National University, Canberra



AN ECONOMIC ANCHOR

Hyundai's Australasian HQ is based within the neighbourhood which provides a strong brand and identity. Developing out built form to attract A grade commercial space around the metro.



Refurbished roofspace, Melbourne

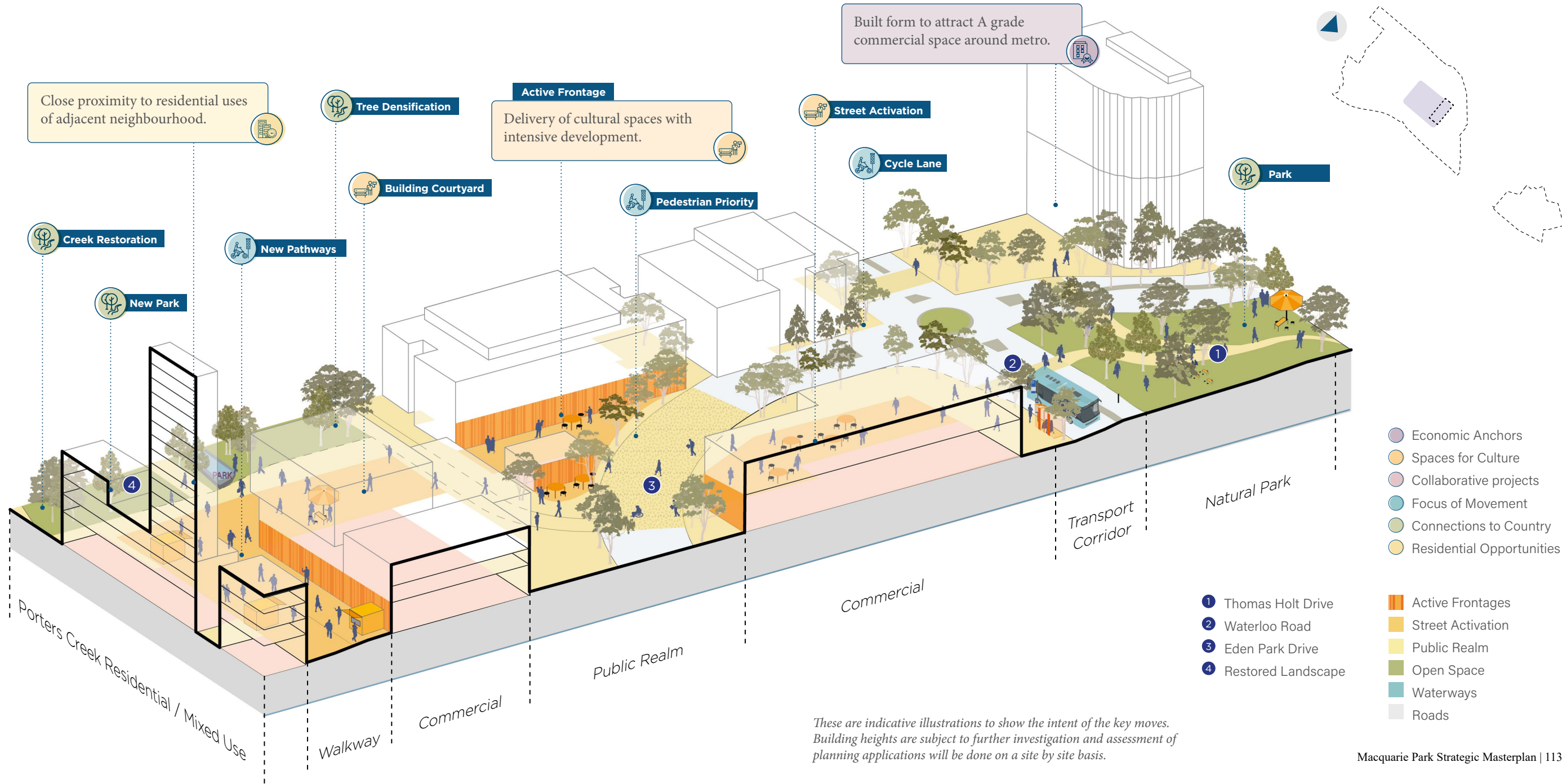


RESIDENTIAL OPPORTUNITIES

Deliver integrated and catalytic residential developments which create clusters of ground floor uses, and the potential for activity at different times of the day.



Nightingale 1, Melbourne



4. GARI NAWI (SALTWATER CANOE) MACQUARIE LIVING STATION

KEY MOVES



A FOCUS OF MOVEMENT

The metro station – including lower level connections into the concourse from adjoining plots will be optimised. Delivery of safe crossings over Lane Cove Road is critical to connecting place together. Woven ways through shared spaces will create better walking links to the wider place.



COLLABORATIVE PARTNERS

Aligned and assembled landowners are proposing collaborative schemes which should be supported – alongside close working with Transport and Metro to increase interconnectivity and passenger experience quality.



A CONNECTION TO COUNTRY

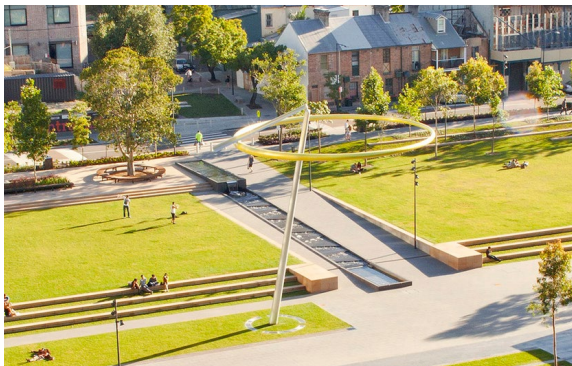
The Junction of Lane Cove Road and Waterloo is a high point within the area and allows views down over the creeks lines to the river and National Park.



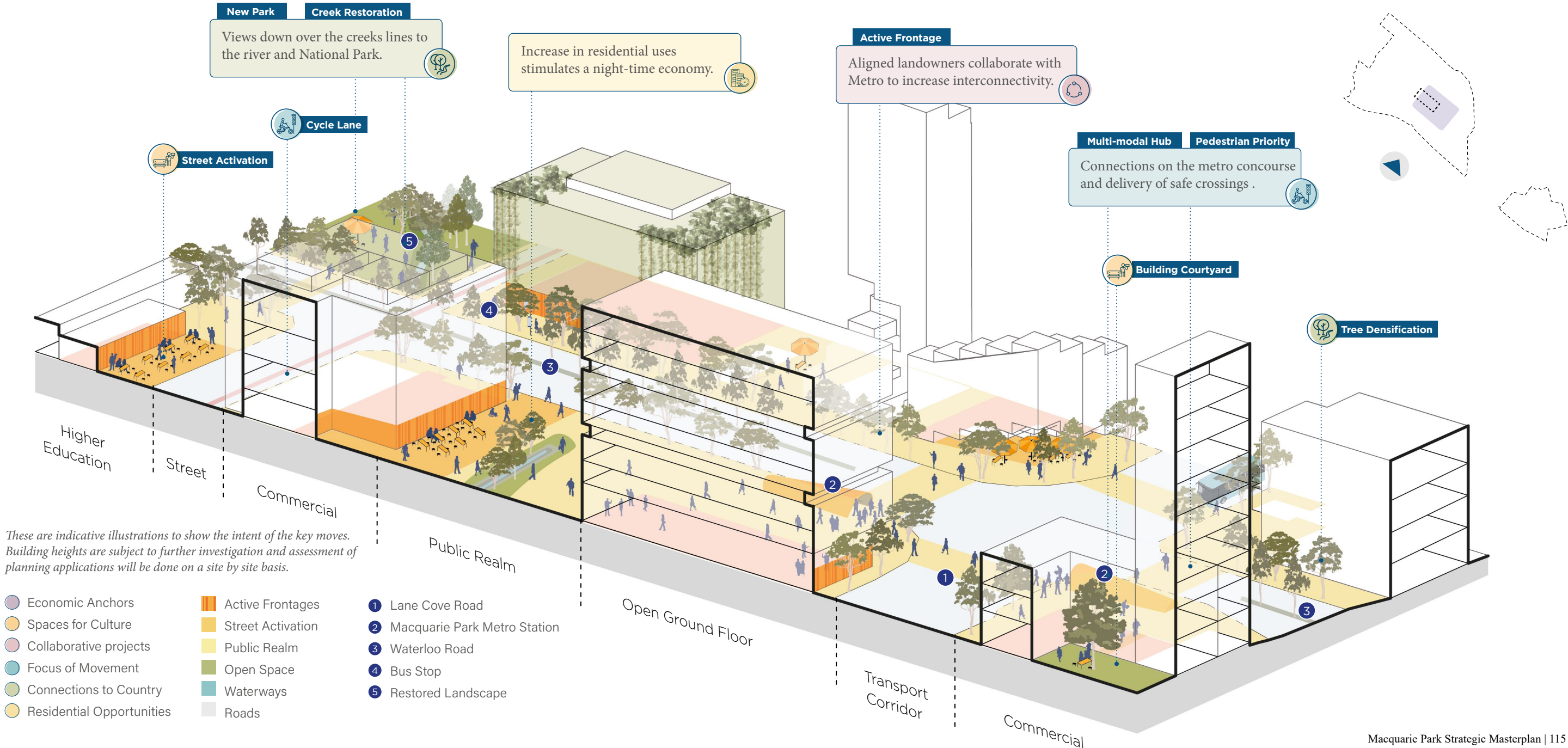
Frankston Station, Melbourne



Frankston Station, Melbourne



Central Park, Sydney



4. GARI NAWI (SALTWATER CANOE) MACQUARIE LIVING STATION

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The Diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the Gari Nawi neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- Expansion and diversification of employment spaces to create up to 500 new jobs and approximately 90 new homes
- Creation of new public art programme
- Roll out of Hydrogen Taxis
- Delivery of finer grain street network
- Public realm plan

6-10 years

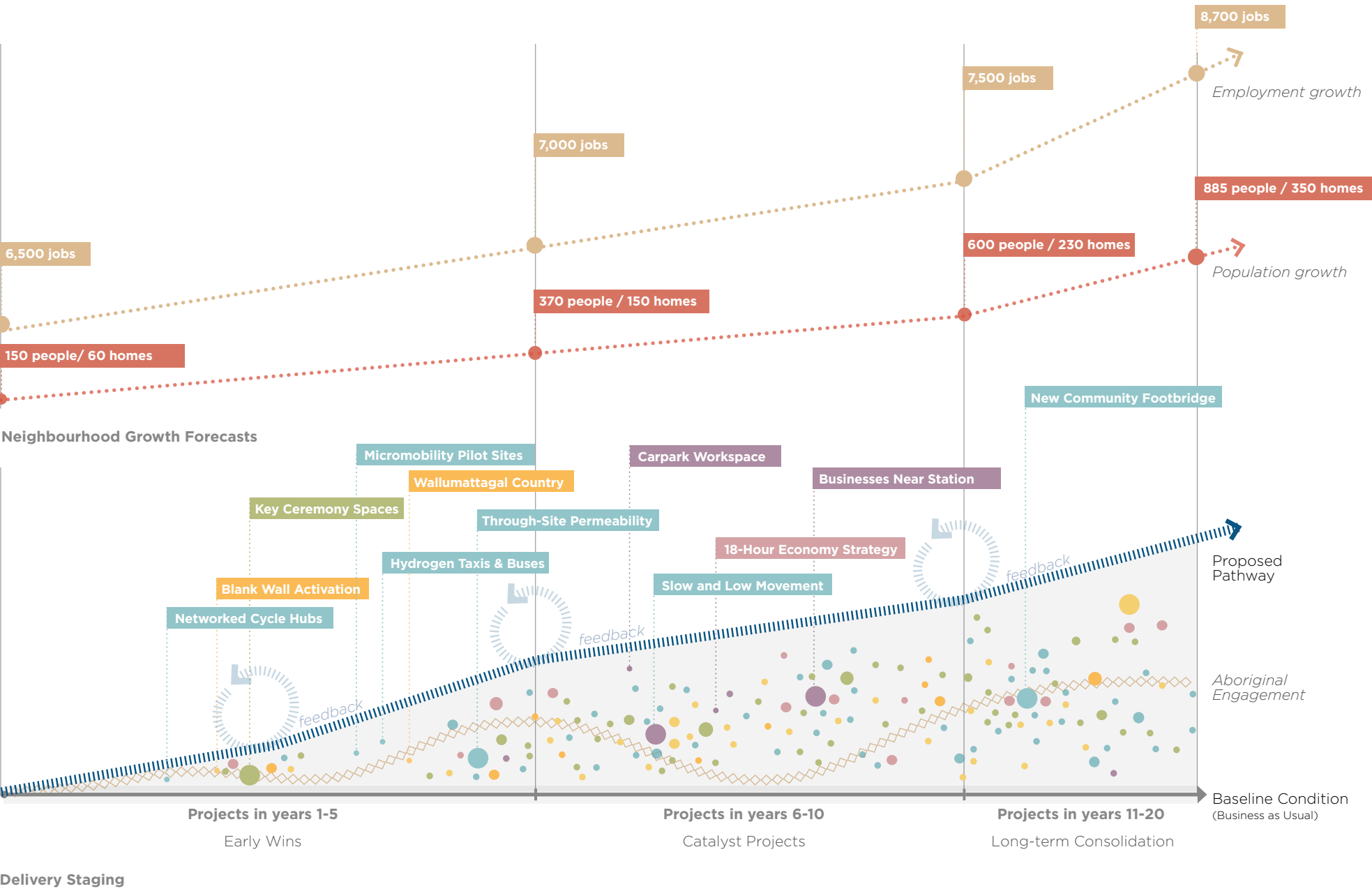
- Further addition of 500 jobs with increased diversity of type and sector and further local residential growth
- Conversion of carparks into active uses
- Continued environmental upgrades to the Creek

11+ years

- Additional 1000 new jobs in diverse sectors and scales including small scale spaces
- Integration of metro station into neighbourhood
- Roll out of 18-hour economic strategy

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.

- Economic Anchors
- Focus of Movement
- Spaces for Culture
- Connections to Country
- Collaborative projects
- Residential Opportunities



DESIGN CRITERIA

PUBLIC OPEN SPACE AND GREEN INFRASTRUCTURE

- Deliver a series of high-quality open spaces ranging in scale and form from parks, plazas and squares totalling 7,000-8,000m² in area of enhanced open space (and 2,000-3,000m² of new open space) for this neighbourhood.
- Ensure opens spaces are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- Ensure integration with the Waterloo Road Active Street Masterplan.
- Connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- As this is a predominantly commercial neighbourhood, the open space target should aim for all areas to be within 400m of a minimum 3,000sqm park.
- For the residential dwellings within the activity hub, the open space target should aim for the residential dwellings to be within 200m of a minimum 1,500sqm park (3,000sqm is preferred).
- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.
- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.

LOCATION OF TALLER BUILDINGS

- Taller buildings should be centred around the metro station and the new activity hub to create identity and a hierarchy of place within the neighbourhood.
- Locate taller buildings where they have least shadow impact on public realm spaces
- Locate height to take advantage of views (Lane Cove National Park) and open space proximity. Maximise direct solar access to adjoining properties.

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.
- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and the metro station.
- The design of taller buildings should allow for a permeable and interesting skyline.
- Maximise direct solar access to adjoining properties.
- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate and provide passive surveillance to these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface
- Podium design to consider weather protection and clear and identifiable entrances.

BUILDING TYPOLOGIES

- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.
- Residential dwellings are only to be located within the Activity Hub. Residential buildings with commercial podiums are encouraged.
- Mixed use buildings with cultural and community facilities as well as residential and commercial uses are to be considered
- Encourage diversity of apartment types, sizes, and layouts to accommodate households of all ages, abilities, sizes and needs, including increased demands on space and acoustic privacy due to more people working from home.
- Use changes in scale and built form to create architectural interest and diversity and enhance relationship with the public domain.

OVERSHADOWING

- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.
- Open spaces are to have solar protection between 10am-2pm on the winter solstice.



Central Park, Sydney

Mixed use building with commercial, hotel and residential uses



Medibank Place, 720 Bourke Street, Melbourne

Slender tower form that provides interest to the skyline. Active frontages on the ground level that address and activate through-site links

5. BURBIGAL (MORNING) PORTER’S CREEK

Most easterly of the neighbourhoods, Burbigal (morning) represents the dawning of day, winding woven ways between Father Sky, the Eel Creator and Ngurra. Framed by Porters Creek. The neighbourhood is the Eastern edge of Macquarie Park and the interface between National Park & CBD bounded to the east by the M2 motorway eastern boundary.

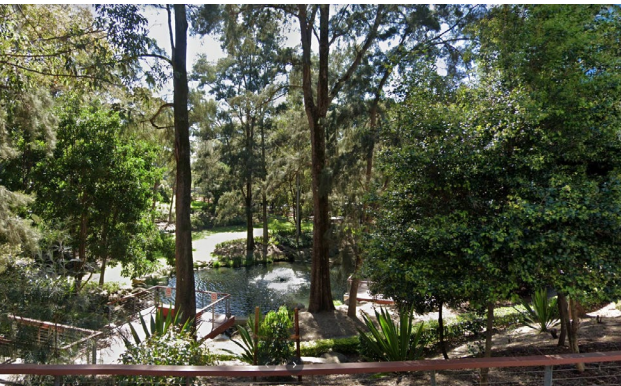
EXISTING CHARACTERISTICS

Burbigal is a neighbourhood bound by Lane Cove Road to the north, the Lane Cove National Park and M2 Motorway to the east and Wicks Road to the south. The neighbourhood is characterised by key open space and connections to the natural environment: Fountain Garden, Halifax Street Park and Porter’s Creek.

The neighbourhood also has some publicly owned land holdings that directly interface with the M2 Motorway, facing the Lane Cove National Park. This presents a key opportunity to repair the severed connection to the National Park and provide more open space in Macquarie Park.

ANCHORS AND FIXES

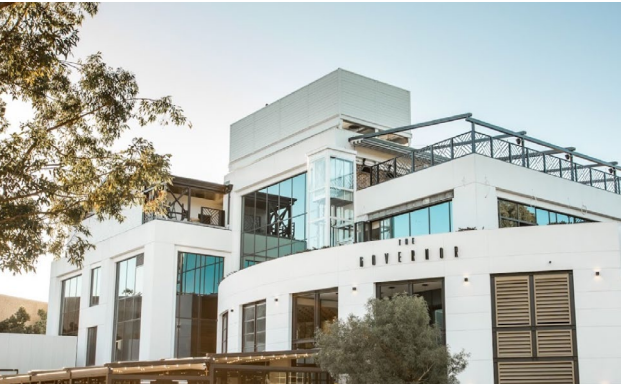
- Fountain Garden
- Porter’s Creek



Fountain Garden



Halifax Street Park



The Governor Hotel



Existing Neighbourhood

5. BURBIGAL (MORNING) PORTER'S CREEK

STRUCTURE PLAN

MOVEMENT FRAMEWORK

The southern end of Waterloo Road sits in this neighbourhood. It will undergo a significant transformation as described in the The Waterloo Road Active Street Masterplan.

Links to Macquarie Park Station through slow zones and new woven ways will create a more walkable enviromnment. Connections to and from the new linear park and to the National Park will encourage active use of this connection to Country.

1.5 km of new road connectivity

1.9 km of new fine grain pathways

- 1 Pedestrian crossing - Talavera Rd/Lane Cove Rd
- 2 Reallocation of road space for future role with park
- 3 Lower speed limits - Lane Cove Road
- 4 Relocate M2 on-shoulder cycle link to dedicated linkage through precinct
- 5 Southern bus layover
- 6 Footpath - Talavera Rd to Fontenoy Rd

OPEN SPACE FRAMEWORK

A new park will act as a buffer between the motorway and the neighbourhood, as well as intensified uses closer to Macquarie Park Station. Open spaces will form a key visual and physical connection to the National Park.

1,500 - 2,000 m² of enhanced open space

30,000 - 35,000 m² of new open space

- A Linear Park creek restoration
- B Local Park
- C Urban Creek
- D Courtyard Public Space

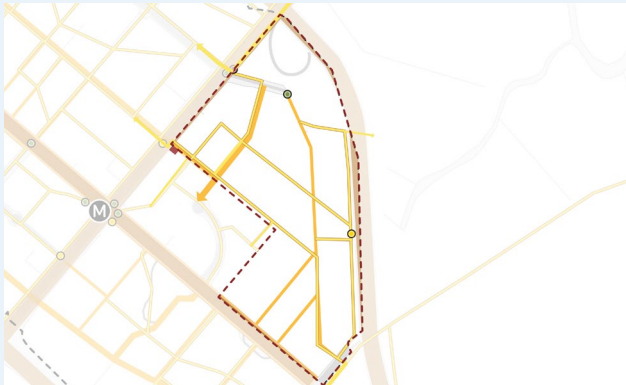
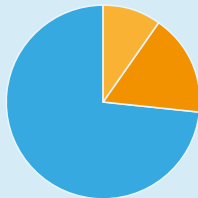
LAND USE FRAMEWORK

New land uses to be delivered to create a vibrant and thriving activity hub that is linked to Lane Cove Road and to Macquarie Park Station. Active frontages lead residents, workers and visitors towards the activity hub and facilitate a seamless journey to new open spaces.

80,000 - 100,000 m² of new built space

400 - 600 new homes

- Residential
- Retail
- Commercial



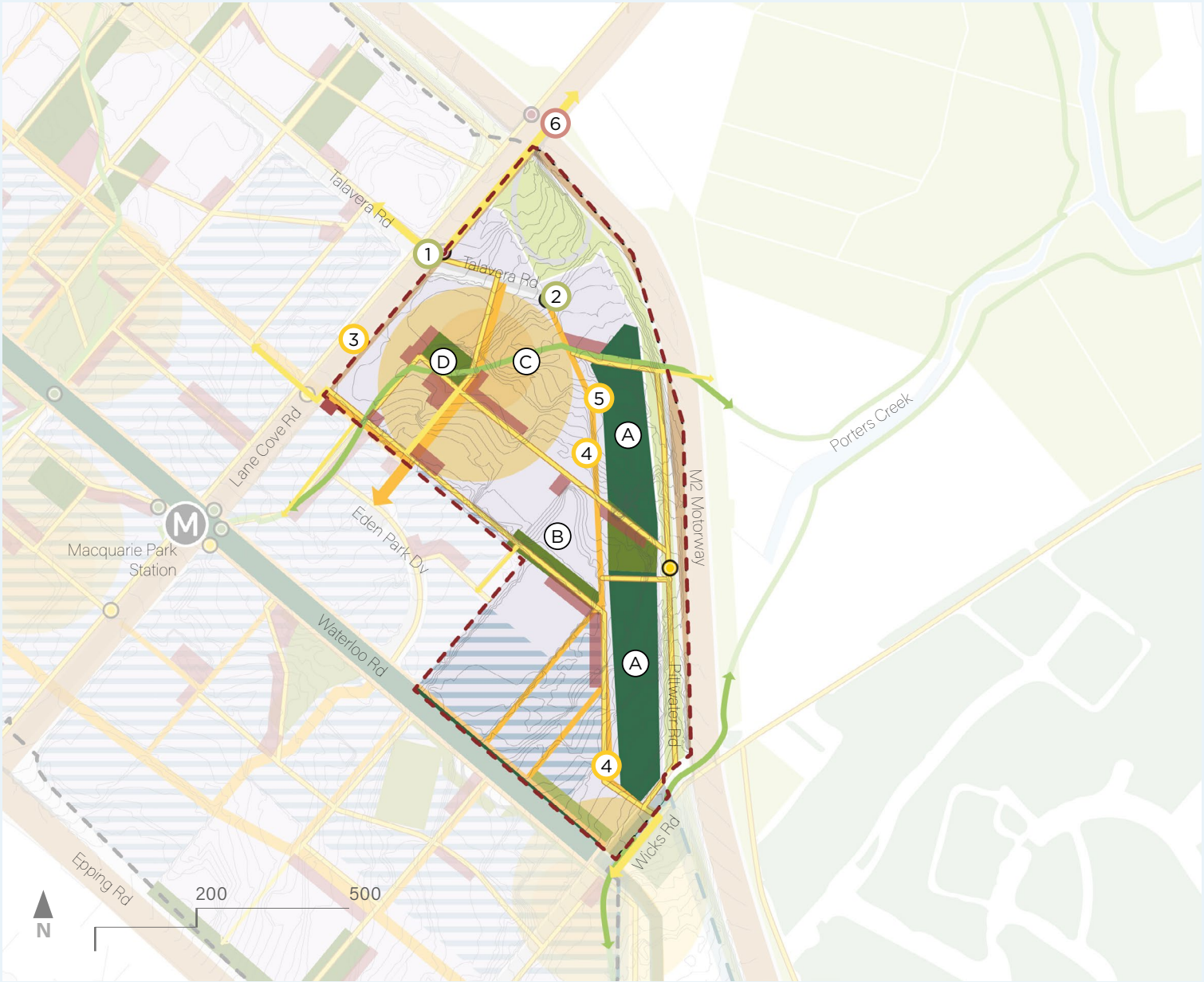
Movement Framework



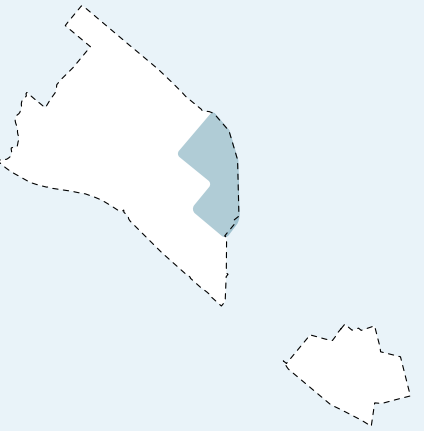
Open Space Framework



Land Use Framework



Neighbourhood Framework



Legend

Movement

- Existing Key Roads
- Existing Roads
- Planned New Roads
- Fine Grain Pathways
- Strategic Interventions

Open Space

- Waterloo Corridor
- Existing Open Space
- Planned New Open Space
- Fine Grain Open Space
- Fine Grain 'Woven ways'

Land Use

- Existing Metro Stations
- Existing Commercial Core (B3)
- Adjacent Precincts
- Area for Diversification (as recommended by Pathway 2)
- New Activity Hubs
- Fine Grain Active Frontages

5. BURBIGAL (MORNING) PORTER'S CREEK

KEY MOVES



A CONNECTIONS TO COUNTRY

Opportunity to revive Porters Creek (rename as Barabiyanga Creek) and form a new park on government owned land giving buffer to motorway and creating new open space to support the intensification of uses around Macquarie Park Station.



A SPACE FOR CULTURE

The opportunity to create a new park on the current wasteland and construction compound can provide opportunity for outdoor culture spaces and a new Ranger station to develop skills in Country management.

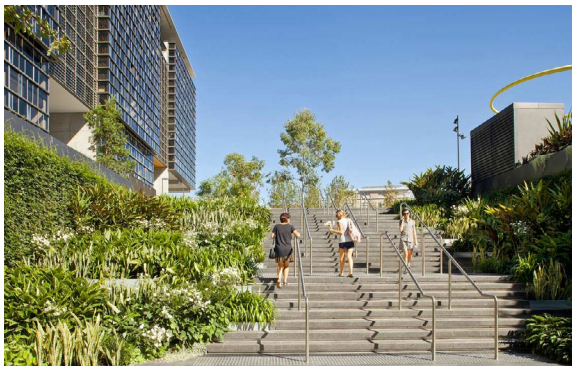


COLLABORATIVE PARTNERS

Collaboration between government authorities to create a delivery and management proposition for a new park to provide a restorative landscape and buffer between the M2 and new development within the neighbourhood.



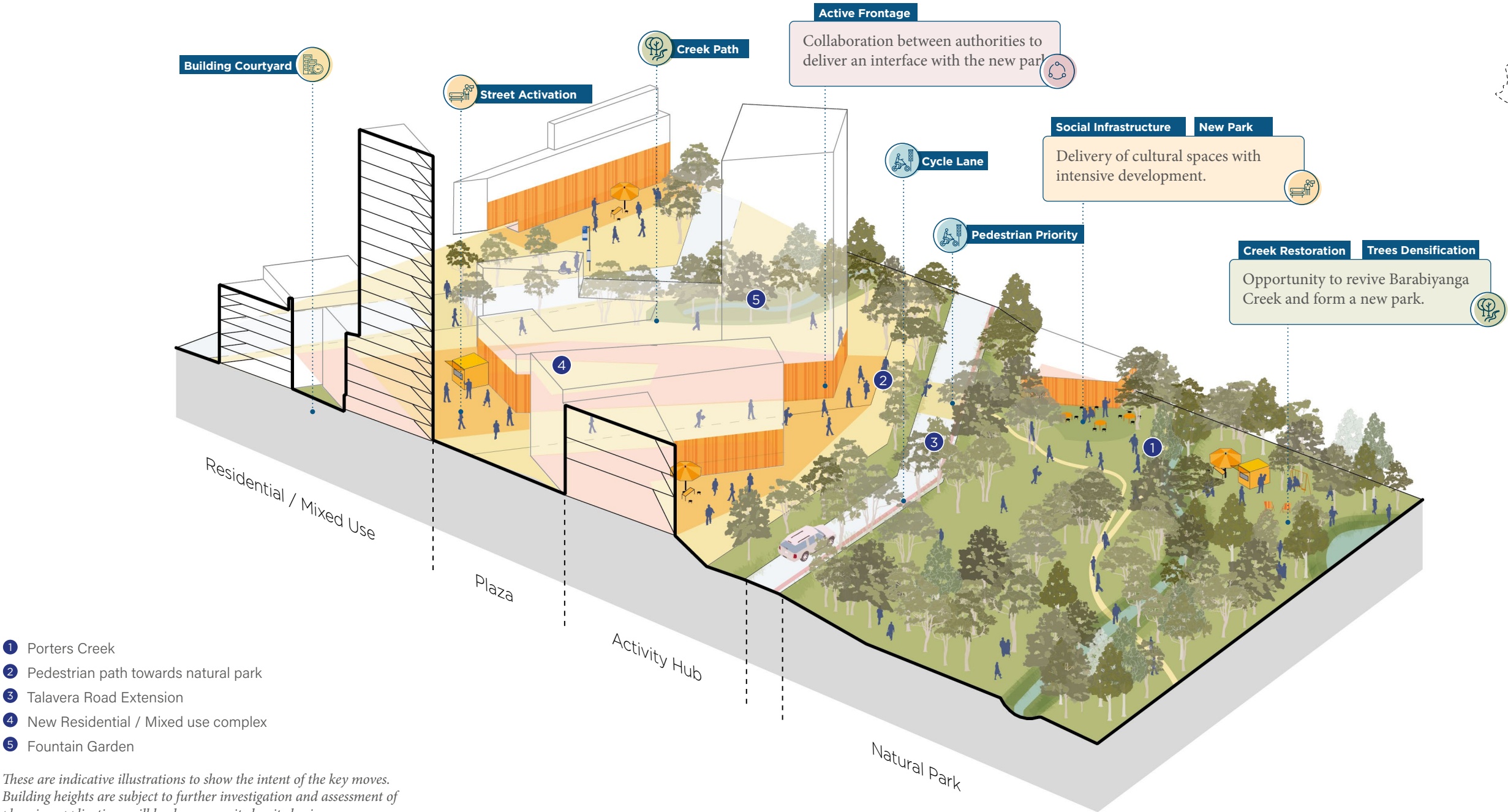
Discovery Centre, Mont Tremblant



One Central Park, Sydney



Gardenhouse, Beverly Hills



- 1 Porters Creek
- 2 Pedestrian path towards natural park
- 3 Talavera Road Extension
- 4 New Residential / Mixed use complex
- 5 Fountain Garden

These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.

5. BURBIGAL (MORNING) PORTER'S CREEK

KEY MOVES



A FOCUS OF MOVEMENT

The precinct has good access to Lane Cove Road for strategic links and with improved facilities offers good walkability to Macquarie Park Station and landscape assets. Potential to create new and improved links to Wicks Road via the FGRN.



AN ECONOMIC ANCHOR

Existing electronics cluster including Canon and Epsom has close proximity to the station and landscape assets supports future definition as a place of increase economic importance.



RESIDENTIAL OPPORTUNITIES

New residential community are supported with space activation and community facilities.



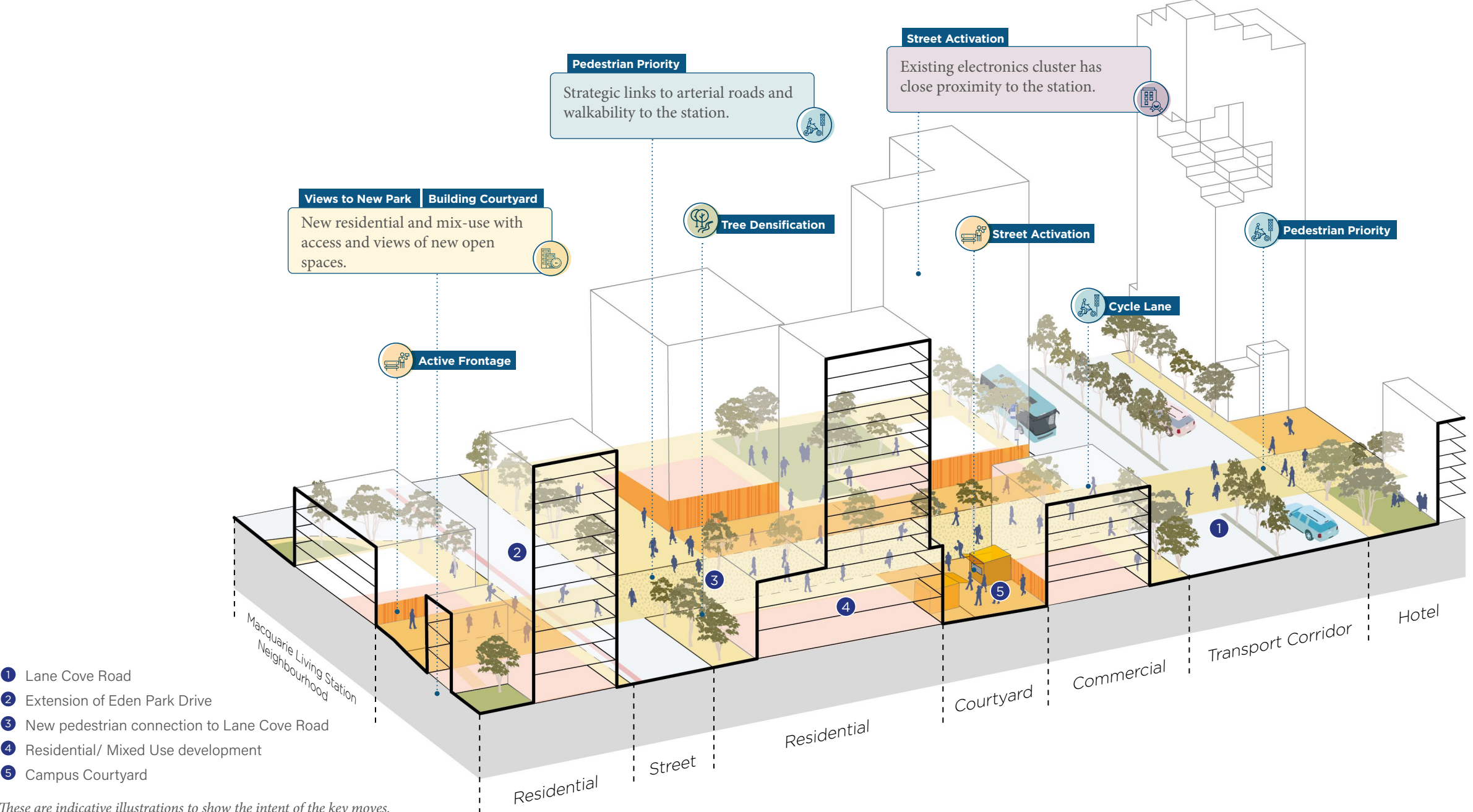
Gardenhouse, Beverly Hills



Central Park, Sydney



Gardenhouse, Beverly Hills



These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.

- Economic Anchors
- Spaces for Culture
- Collaborative projects
- Focus of Movement
- Connections to Country
- Residential Opportunities

- Active Frontages
- Street Activation
- Public Realm
- Open Space
- Waterways
- Roads

5. BURBIGAL (MORNING) PORTER’S CREEK

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the Burbigal neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- Further addition of 100 jobs with increased diversity of type and sector and further local residential growth of approx. 300 people
- Delivery of new park
- Roll out of Hydrogen Taxis
- Delivery of finer grain street network
- Public realm plan

6-10 years

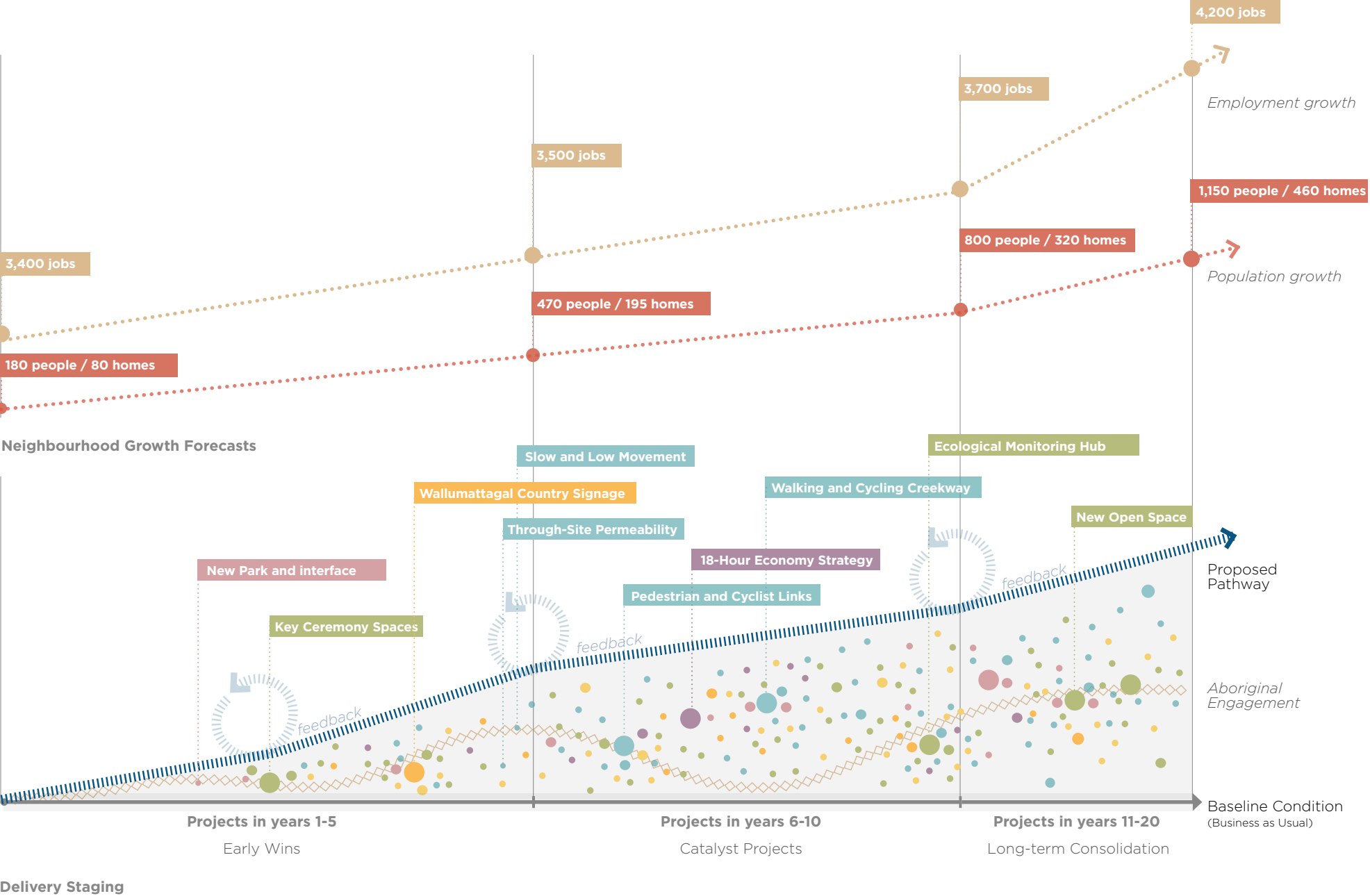
- Develop clusters of new residential for a further 300 people
- Conversion of carparks into active uses
- New wayfinding

11+ years

- Additional 500 new jobs in diverse sectors and scales including small scale spaces
- Ecological monitoring hub collecting data
- Roll out of 18-hour economic strategy

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.

- Economic Anchors
- Focus of Movement
- Spaces for Culture
- Connections to Country
- Collaborative projects
- Residential Opportunities



5. BURBIGAL (MORNING) PORTER’S CREEK

DESIGN CRITERIA

NEW PUBLIC OPEN SPACE

- Deliver a series of high-quality open spaces ranging in scale and form from parks, plazas and squares totalling 30,000-35,000m2 in area of new open space (and 1,500-2,000m2 of enhanced open space) for this neighbourhood.
- Ensure opens spaces are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- Ensure integration with the Waterloo Road Active Street Masterplan.
- Connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- Linear Parks will form the landscaped eastern edge of the neighbourhood and provide a buffer to the M2 motorway
- As this is a predominantly commercial neighbourhood, the open space target should aim for all areas to be within 400m of a minimum 3,000sqm park.
- For the residential dwellings within the activity hub, the open space target should aim for the residential dwellings to be within 200m of a minimum 1,500sqm park (3,000sqm is preferred).

GREENERY

- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.

- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.

LOCATION OF TALLER BUILDINGS

- Taller buildings should be centred around the new activity hub to create identity and a hierarchy of place within the neighbourhood.
- Locate taller buildings where they have least shadow impact on public realm spaces
- Locate height to take advantage of views (Lane Cove National Park) and open space proximity. Maximise direct solar access to adjoining properties.

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.
- Encourage innovative, creative, and high-quality building design that positively
- contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and from the M2. The design of taller buildings should allow for a permeable and interesting skyline.
- Maximise direct solar access to adjoining properties.
- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate and provide passive surveillance to these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface
- Podium design to consider weather protection and clear and identifiable entrances.

BUILDING TYPOLOGIES

- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.
- Mixed use buildings with cultural and community facilities as well as residential and commercial uses are to be considered
- Encourage diversity of apartment types, sizes, and layouts to accommodate households of all ages, abilities, sizes and needs, including increased demands on space and acoustic privacy due to more people working from home.
- Use changes in scale and built form to create architectural interest and diversity and enhance relationship with the public domain.
- Education facilities should be located near new or enhanced open space to maximise shared use.
- Location of residential buildings to be located predominantly outside the commercial core and some located within the Activity Hub. Residential buildings with commercial podiums are encouraged.

OVERSHADOWING

- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.
- Open spaces are to have solar protection between 10am-2pm on the winter solstice.



Cairns Performing Arts Centre

Active frontages to address open spaces and pedestrian routes. Podium design to consider weather protection.

6. GARUNGUL (UNBREAKABLE) WICKS ROAD SOUTH

Garungul, meaning unbreakable is located in the South eastern quadrant of Macquarie Park. Garungul represents continuity, sustainability, and acts as an anchor for communities to grow within Ngurra. The precinct is characterised by education, health and well being activities and walkable links to North Ryde and Macquarie Park.

EXISTING CHARACTERISTICS

Garungul is a neighbourhood located in the southwestern portion of the Investigation Area. It is bound by Lane Cove Road to the north, Epping Road to the west, and Lachlan's Line to the south and east.

Garungul is characterised by a prevalence of education and recreation uses, including early childhood and childcare and the Ryde Hunters Hill District Hockey Club. The current built form is comprised of single- to two-storey warehouses and commercial office buildings. There is also large-format retail on the western edge, including Officeworks and Harvey Norman.

The neighbourhood directly interfaces with the new Lachlan's Line precinct, which is part of the North Ryde Station precinct.

ANCHORS AND FIXES

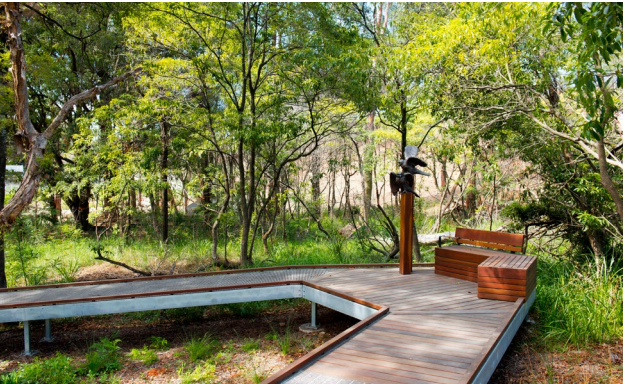
- Lachlan's Line
- Epping Road



Lachlan's Line Road



Pedestrian Bridge over Epping Road



Lachlan's Line Park



Existing Neighbourhood

6. GARUNGUL (UNBREAKABLE) WICKS ROAD SOUTH

STRUCTURE PLAN

MOVEMENT FRAMEWORK

Active transport links to North Ryde and Macquarie Park create a more amenable pedestrian environment. The southern end of Waterloo Road sits in this neighbourhood. It will undergo a significant transformation as described in the Waterloo Road Active Street Masterplan.

1.3 km of new road connectivity

2.2 km of new fine grain pathways

1 Provide more signalised pedestrian / cyclist crossings across Waterloo Road - increasing active permeability

2 Waterloo Road improvements: bus lanes, fine grain street access

3 Lower speed limits - Waterloo Road and Wicks Road

OPEN SPACE FRAMEWORK

Fine grain ‘woven ways’ along the creek line will link a series of open spaces. The enhanced public domain along Waterloo Road (as identified in the Waterloo Road Active Street Masterplan) will strengthen the landscaping and open space amenity in this neighbourhood.

3,000 - 3,500 m² of enhanced open space

10,000 - 15,000 m² of new open space

A Corridor Square

B Local Plaza

C Linear Park

D Urban Creek

LAND USE FRAMEWORK

New land uses to be delivered to create a thriving neighbourhood with the potential for education, health, cultural and residential uses. The Activity Hub located within the Commercial Core will provide a mix of uses and create a vibrant Activity Hub.

300,000 - 350,000 m² of new built space

1,500 - 2,000 new homes

Residential

Retail

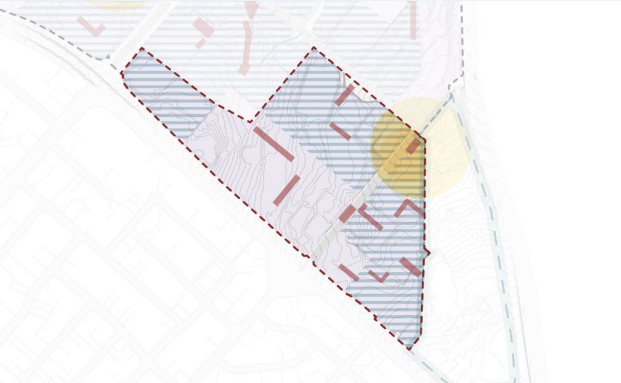
Commercial



Movement Framework



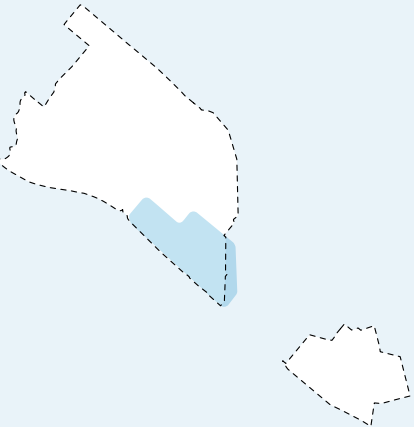
Open Space Framework



Land Use Framework



Neighbourhood Framework



Legend

Movement

- Existing Key Roads
- Existing Roads
- Planned New Roads
- Fine Grain Pathways
- Strategic Interventions

Open Space

- Waterloo Corridor
- Existing Open Space
- Planned New Open Space
- Fine Grain Open Space
- Fine Grain ‘Woven ways’

Land Use

- Existing Metro Stations
- Existing Commercial Core (B3)
- Adjacent Precincts
- Area for Diversification (as recommended by Pathway 2)
- New Activity Hubs
- Fine Grain Active Frontages

6. GARUNGUL (UNBREAKABLE) WICKS ROAD SOUTH

KEY MOVES



A CONNECTION TO COUNTRY

The cluster of education uses and sports and recreation pitches give an opportunity to build a continuity of knowledges and lore, through these important centres, linking to increased physical activity for communities.



Gardenhouse, Beverly Hills



A SPACE FOR CULTURE

New developments to deliver cultural spaces for both practice and performance. Close links to public transport and nearby existing residential communities create a cultural catchment.

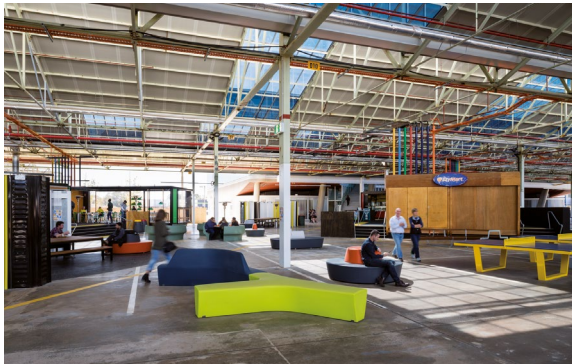


Highgate Primary School, Perth



COLLABORATIVE PARTNERS

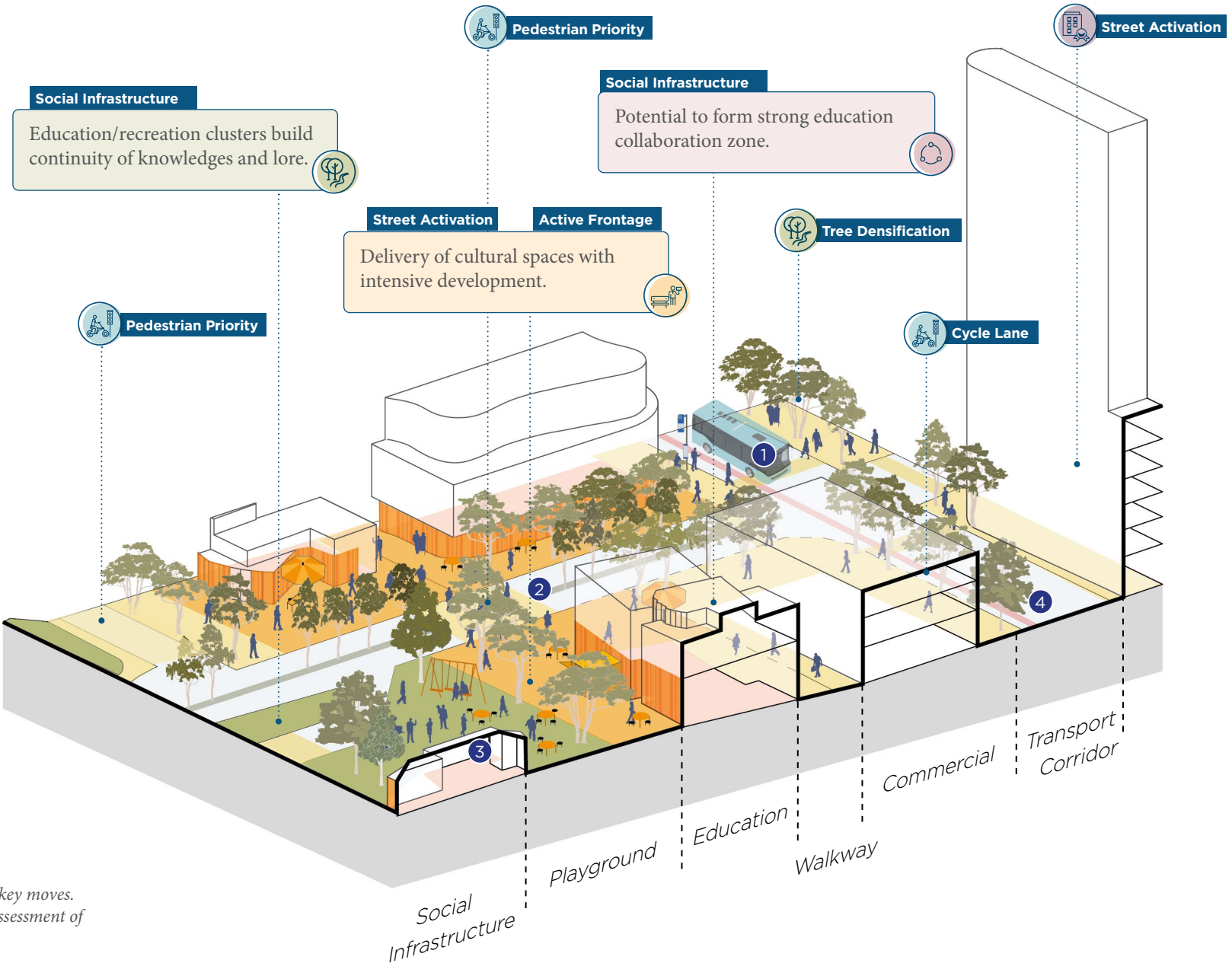
Potential to form strong education collaboration zone around the high school and to embed Cultural Literacy focus areas - Visual Arts, Reading Country e.g. fire - cool fire burning knowledges alongside collaborations with the sporting community (Hockey etc.) – possible wellbeing focus.



The Main Assembly Building and Pods, Adelaide

- 1 Wicks Road
- 2 Waterloo Road
- 3 Nought To Five Early Childhood Centre
- 4 Pedestrian path towards natural park

These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.



- Economic Anchors
- Spaces for Culture
- Collaborative projects
- Focus of Movement
- Connections to Country
- Residential Opportunities

- Active Frontages
- Street Activation
- Public Realm
- Open Space
- Waterways
- Roads

6. GARUNGUL (UNBREAKABLE) WICKS ROAD SOUTH

KEY MOVES



A FOCUS OF MOVEMENT

The neighbourhood is in close proximity to North Ryde Station and Macquarie Park Station and via footbridge to North Ryde. Walking connections to Lachlan's Line. Wicks Road is an important link to Epping Road.



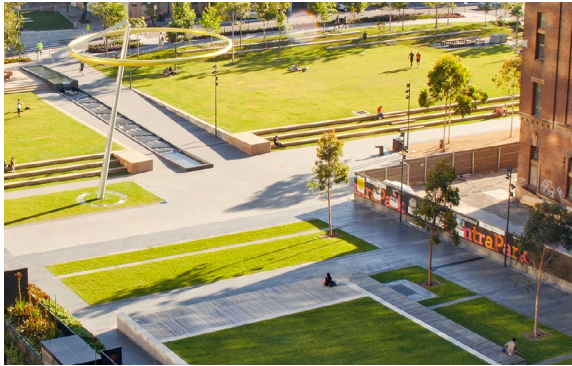
AN ECONOMIC ANCHOR

Utilise new development propositions as catalysts to create new diversified commercial spaces including space for SME, co-working and incubation spaces.



RESIDENTIAL OPPORTUNITIES

New developments to provide mixed use/residential uses.



Central Park, Sydney



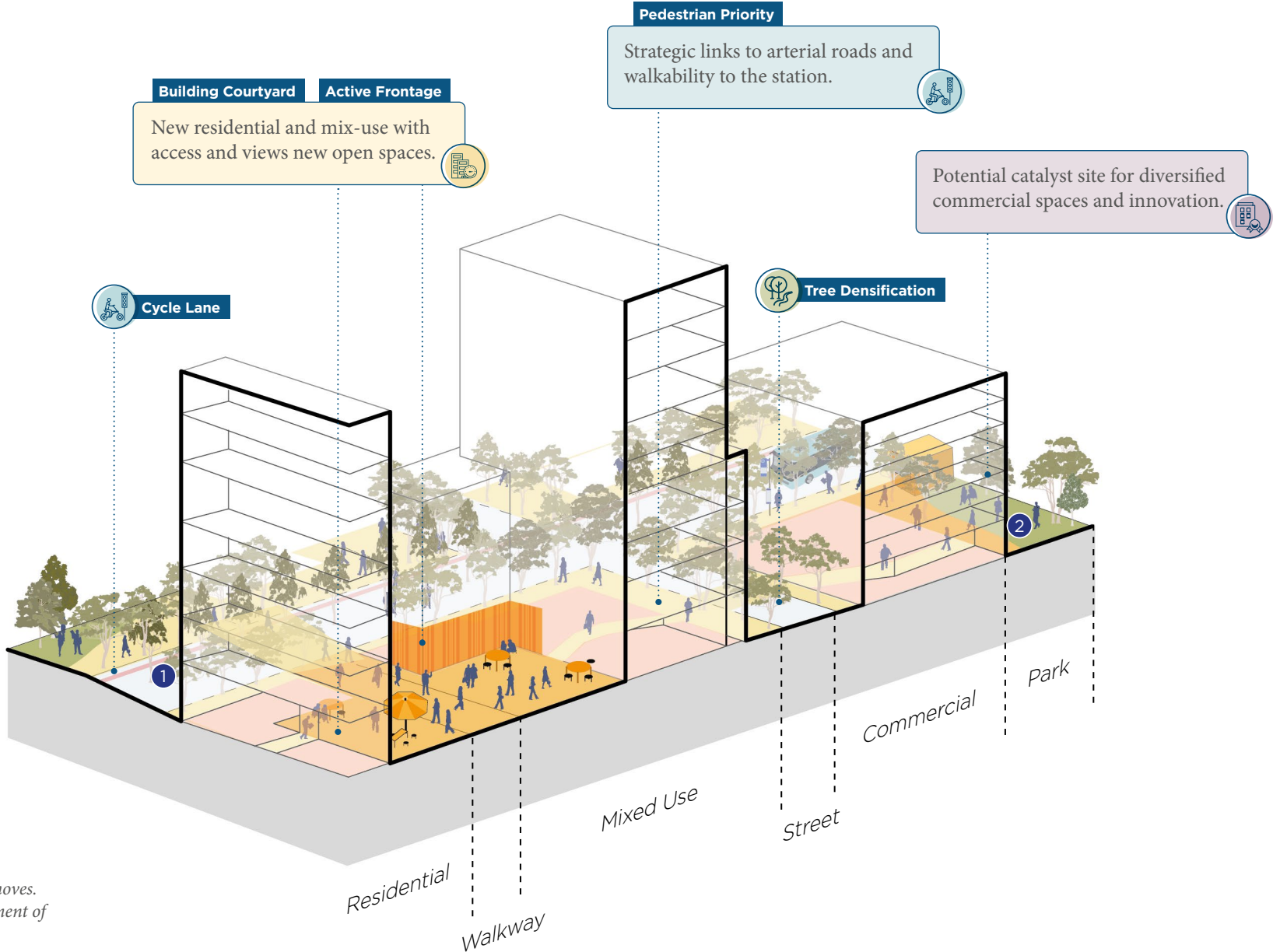
Methodist Ladies College, Melbourne



Nightingale 1, Melbourne

- 1 Wicks Road
- 2 Pedestrian path towards natural park

These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.



- Economic Anchors
- Spaces for Culture
- Collaborative projects
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- Connections to Country
- Residential Opportunities

- Active Frontages
- Street Activation
- Public Realm
- Open Space
- Waterways
- Roads

6. GARUNGUL (UNBREAKABLE) WICKS ROAD SOUTH

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The Diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the Garungul neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- Expansion and diversification of employment spaces to create up to 400 new jobs and 900 new people into the community
- Creation of new school precinct
- Micro mobility project rolls out
- Delivery of finer grain street network
- Public realm plan

6-10 years

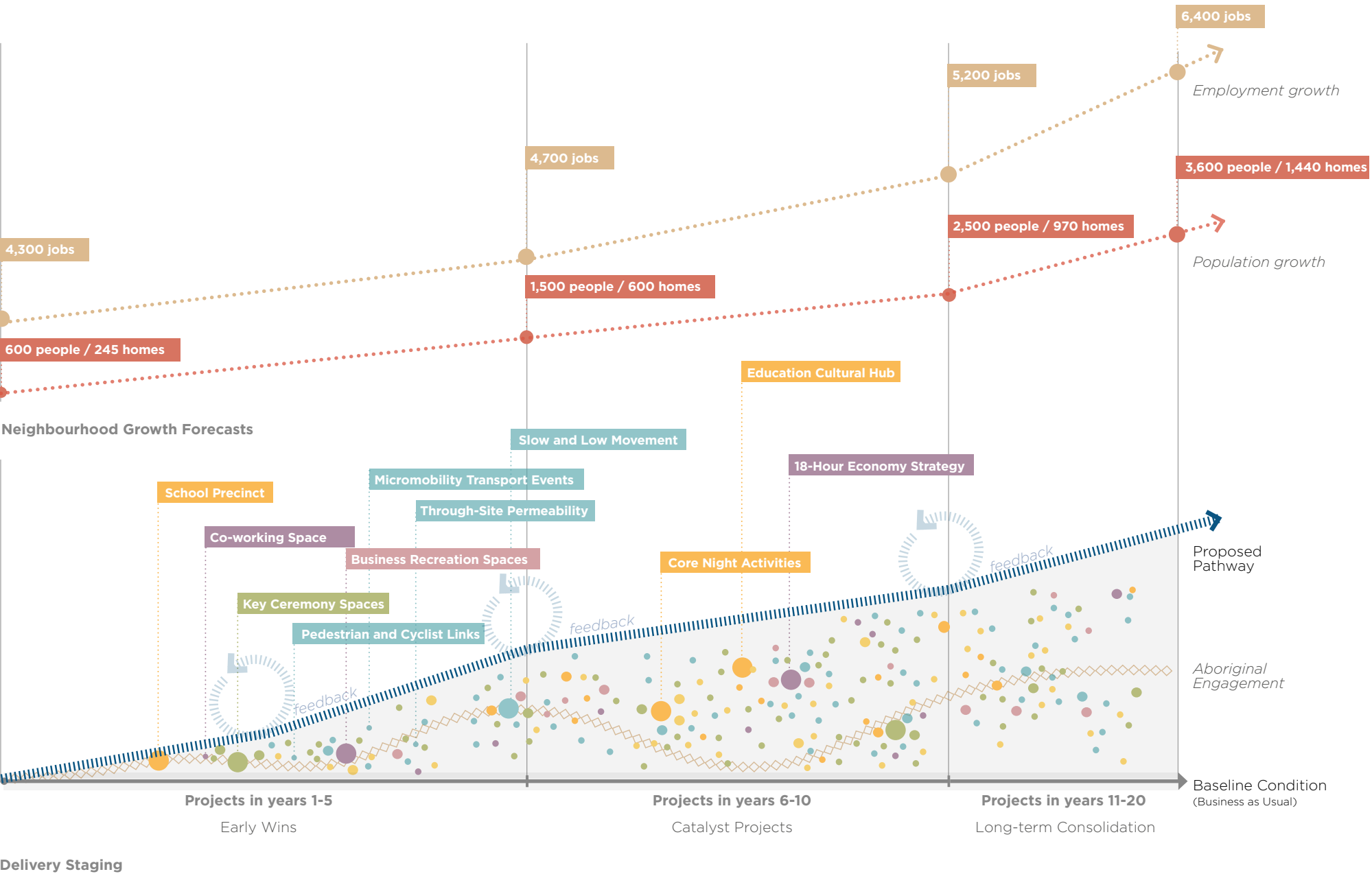
- Further addition of 500 jobs with increased diversity of type and sector and further 1000 new people into the community
- Conversion of carpark into active uses
- Continued environmental upgrades to the Creek
- Delivery of cultural hub and diverse working spaces

11+ years

- Additional 1200 new jobs in the long term
- Roll out of 18-hour economic strategy

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.

- Economic Anchors
- Focus of Movement
- Spaces for Culture
- Connections to Country
- Collaborative projects
- Residential Opportunities



6. GARUNGUL (UNBREAKABLE) WICKS ROAD SOUTH

DESIGN CRITERIA

PUBLIC OPEN SPACE AND GREEN INFRASTRUCTURE

- Deliver a series of high-quality open spaces ranging in scale and form from parks, plazas and squares totalling 10,000-15,000m2 in area of new open space (and 3,000-3,500m2 of enhanced open space) for this neighbourhood.
- Ensure opens spaces are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- The connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- As this is a predominantly commercial neighbourhood, the open space target should aim for all areas to be within 400m of a minimum 3,000sqm park.
- As this is neighbourhood has a considerable number of residential dwellings, the open space target should aim for all areas to be within 200m of a minimum 1,500sqm park (3,000sqm is preferred).
- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.
- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.

LOCATION OF TALLER BUILDINGS

- Taller buildings should be located along Wicks Road and around the new activity hub to create identity and a hierarchy of place within the neighbourhood.
- Locate taller buildings where they have least shadow impact on public realm spaces
- Locate height to take advantage of views (Macquarie Park Cemetery and Lane Cove National Park) and open space proximity. Maximise direct solar access to adjoining properties.

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.
- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and from the M2. The design of taller buildings should allow for a permeable and interesting skyline.
- Maximise direct solar access to adjoining properties.
- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate and provide passive surveillance to these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface



Adelaide Botanic High School, Cox Architecture and Design

Vertical school integrated with the landscape and minimise the shadow impact on public realm spaces

BUILDING TYPOLOGIES

- Podium design to consider weather protection and clear and identifiable entrances.
- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.
- Mixed use buildings with cultural and community facilities as well as residential and commercial uses are to be considered
- Educational facilities can be incorporated into the podiums of mixed use buildings
- Education facilities should be located near new or enhanced open space to maximise shared use.
- Location of residential buildings to be located predominantly outside the commercial core and some located within the Activity Hub. Residential buildings with commercial podiums are encouraged.
- Encourage diversity of apartment types, sizes, and layouts to accommodate households of all ages, abilities, sizes and needs, including increased demands on space and acoustic privacy due to more people working from home.
- Use changes in scale and built form to create architectural interest and diversity and enhance relationship with the public domain.



Mon Repos Turtle Research Centre

Buildings should be welcoming and places that people can engage with

OVERSHADOWING

- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.
- Open spaces are to have solar protection between 10am-2pm on the winter solstice..

7. NARRAMI BADU-GUMADA (CONNECTING WATER SPIRIT) NORTH RYDE RIVERSIDE

Narrami Badu-Gumada refers to the Water Spirit. The neighbourhood is important as the Narrami Badu-Gumada marks the connection of the physical and spiritual worlds, through its burial places (Gumada) (Macquarie Park Cemetery) which sit adjacent. The Neighbourhood is surrounded by the landscape of the National Park and, unlike elsewhere in the Precinct its road structure follows topographic lines.

EXISTING CHARACTERISTICS

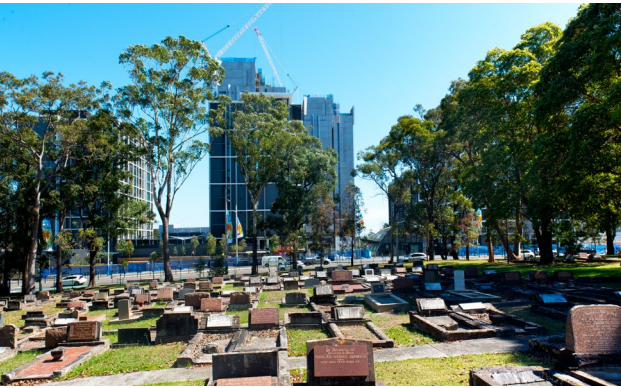
Narrami Badu-Gumada is the southern most neighbourhood of Macquarie Park. It is the only neighbourhood not directly connected to the rest of the Investigation Area. It is bound to the north by the North Ryde Station Precinct, the M2 Motorway to the west and Delhi Road to the East and the Lane Cove National Park to the south.

The neighbourhood is the former location of the CSIRO site, and is home to a number of office buildings set in a typical business park format. The topography of the site slopes down towards the Lane Cove National Park and the road grid is designed to be travelled in a vehicle. Narrow footpaths and the absence of cycling infrastructure further illustrate this.

The neighbourhood's proximity to the National Park, combined with its sloping topography give the neighbourhood a distinctly "in-nature" character that surrounds the built form with nature.

ANCHORS AND FIXES

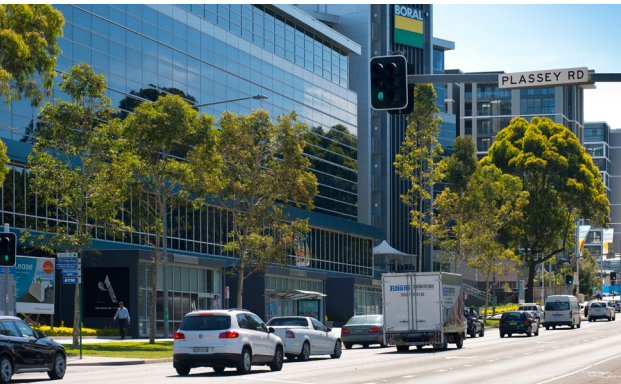
- Macquarie Park Cemetery
- Lane Cove National Park
- North Ryde Metro Station



Macquarie Park Cemetery and Crematorium



Lane Cove National Park



Delhi Road



Existing Neighbourhood

7. NARRAMI BADU-GUMADA (CONNECTING WATER SPIRIT) NORTH RYDE RIVERSIDE
STRUCTURE PLAN

MOVEMENT FRAMEWORK

There will be a comprehensive network of dedicated cycle and micro-mobility connections across the neighbourhood, along with a direct connection to Lane Cove National Park & River.

200 m of new road connectivity

4 km of new fine grain pathways

- 1 Deliver finer grain street network
- 2 Deliver comprehensive network of dedicated cycle & micro-mobility connections
- 3 Deliver active transport link through Riverside Business Park
- 4 Deliver increased bicycle parking

OPEN SPACE FRAMEWORK

A series of large, diverse open spaces will provide amenity for the increased population in this neighbourhood. The close proximity to the Lane Cove National Park provides the opportunity for integrating planting and waterways into these spaces and be responsive to Country.

30,000 - 35,000 m² of new open space

- A Riverside Park (connecting to trail)
- B Mixed Use Plaza
- C Local Plaza
- D Corridor Square

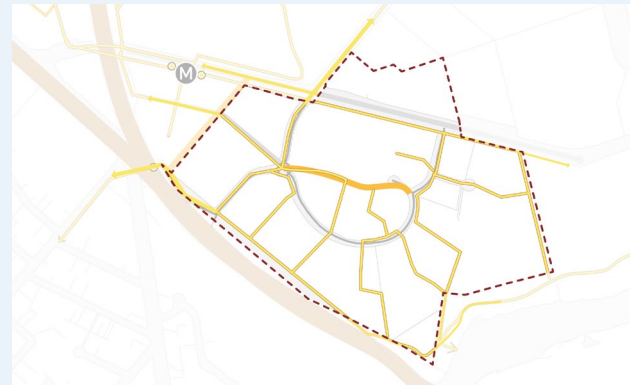
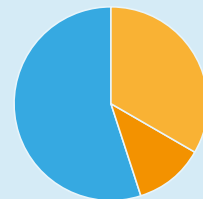
LAND USE FRAMEWORK

A mix of land uses will be delivered to create a thriving neighbourhood with the potential for education, social, cultural and residential uses adjoining commercial and employment areas. The Activity Hub located within the Commercial Core will provide a mix of uses, including residential, and create a vibrant hub of activity in the middle of the neighbourhood.

400,000 - 500,000 m² of new built space

1,500 - 2,000 new homes

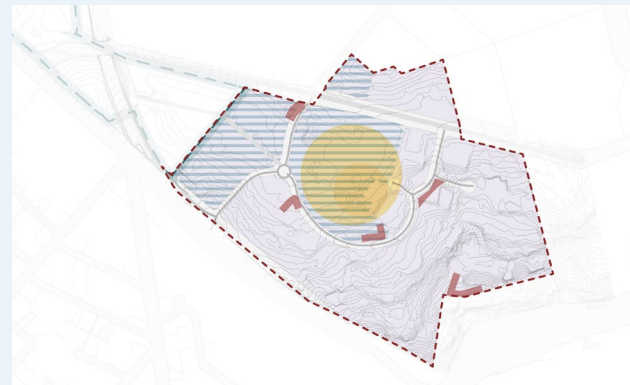
- Residential
- Retail
- Commercial



Movement Framework



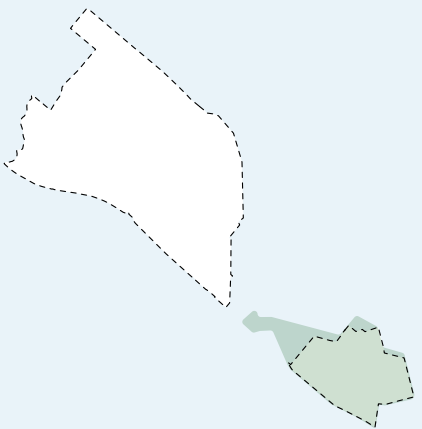
Open Space Framework



Land Use Framework



Neighbourhood Framework



Legend

Movement

- Existing Key Roads
- Existing Roads
- Planned New Roads
- Fine Grain Pathways
- Strategic Interventions

Open Space

- Waterloo Corridor
- Existing Open Space
- Planned New Open Space
- Fine Grain Open Space
- Fine Grain 'Woven ways'

Land Use

- Existing Metro Stations
- Existing Commercial Core (B3)
- Adjacent Precincts
- Area for Diversification (as recommended by Pathway 2)
- New Activity Hubs
- Fine Grain Active Frontages

7. NARRAMI BADU-GUMADA (CONNECTING WATER SPIRIT) NORTH RYDE RIVERSIDE

KEY MOVES



AN ECONOMIC ANCHOR

Ryde Council offices and surrounding A Grade office space creates a high quality address to the south of the neighbourhood with views and links directly to the National Park. Opportunities for new sustainable business including horticulture.



James Cook University, Townsville



A FOCUS OF MOVEMENT

North Ryde Metro & bus interchange requires new interconnection to the rest of Riverside. Walking and cycling is constrained by topography. Direct connection to Lane Cove National Park & River create walking, running, cycling opportunities.



Darling Harbour Public Realm, Sydney

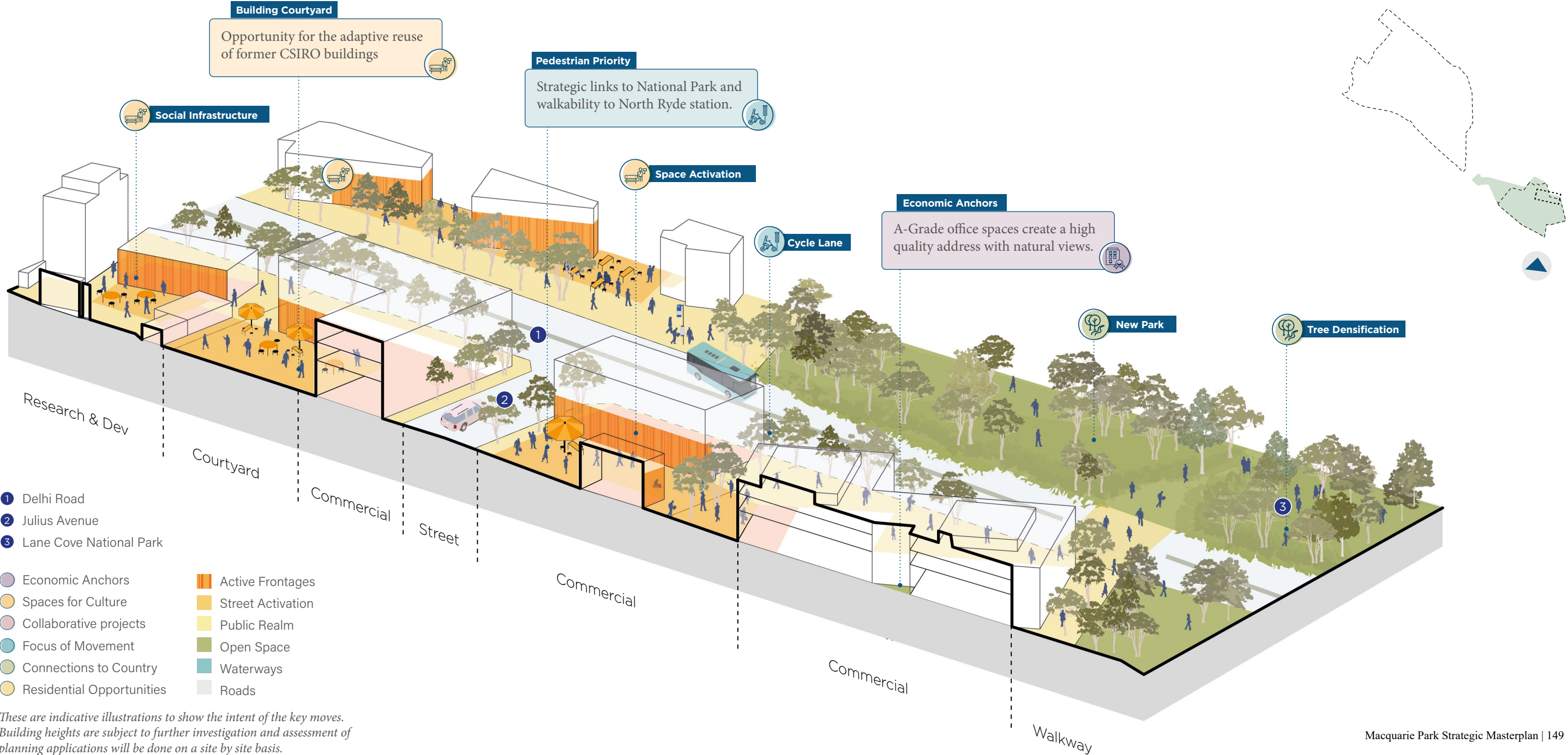


A SPACE FOR CULTURE

Through comprehensive redevelopment there is a significant opportunity for the adaptive reuse of former CSIRO buildings. Proximity to National Parks creates links for new education and training including Aboriginal Ranger programs.



Xichong Coast, Shenzhen



7. NARRAMI BADU-GUMADA (CONNECTING WATER SPIRIT) NORTH RYDE RIVERSIDE

KEY MOVES



COLLABORATIVE PARTNERS

Current land owners are formed into a collaborative group with the intention of bringing forward a synthesised redevelopment. Further partnership with the National Park and the residential community around North Ryde Station are supported.



A CONNECTION TO COUNTRY

Direct connection to Lane Cove National Park with natural topography forming a unique set of natural spaces. Opportunities for regeneration of plants and waterways and responsiveness to Country.



RESIDENTIAL OPPORTUNITIES

New residential quarter with high levels of open space and access to the National Park. Active ground plane with cultural and social uses shared with adjoining work spaces and employment areas.



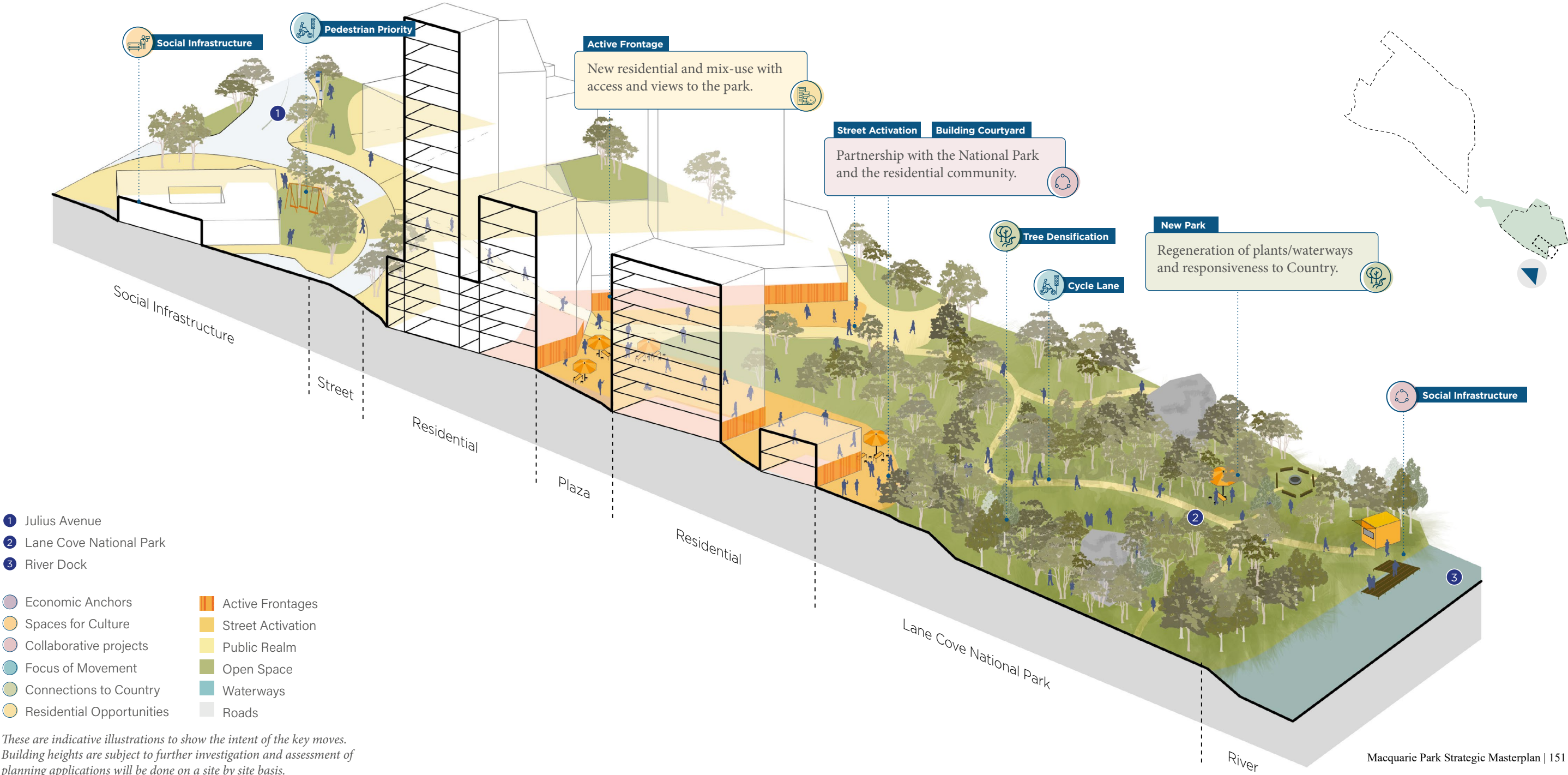
Brisbane Ferry Terminals, Brisbane



Woolyungah Indigenous Centre, Wollongong



Methodist Ladies College, Melbourne



These are indicative illustrations to show the intent of the key moves. Building heights are subject to further investigation and assessment of planning applications will be done on a site by site basis.

7. NARRAMI BADU-GUMADA (CONNECTING WATER SPIRIT) NORTH RYDE RIVERSIDE

KEY MOVES

APPROACH TO PHASING AND DELIVERY

The Diagram opposite maps an illustrative sequence of early win projects, more structural catalytic projects and longer-term transformations which would support the delivery of proposed growth within the Narrami Badu-Gumada neighbourhood. This is an illustrative sequence and recognises that sites and development areas may come forward at different times, however the recommendations demonstrate the type and order of projects and initiatives which would support the delivery of the vision. This would include:

1-5 years

- New residential and mixed use development bringing forward diverse homes and approximately 800 new people into the community
- Wayfinding and public art strategy
- Regenerative Country Centred landscape management
- Delivery of finer grain street network
- Public realm plan

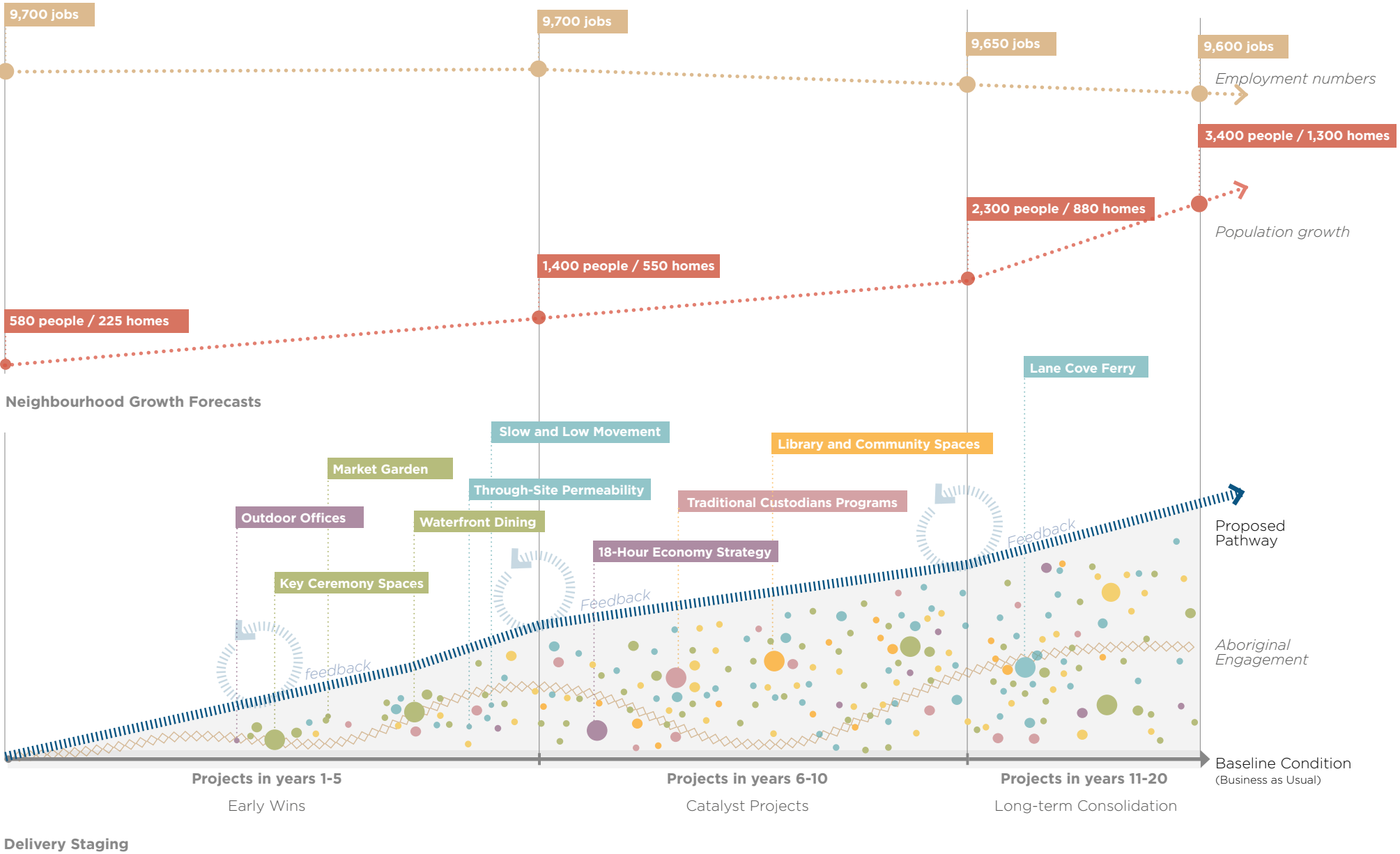
6-10 years

- A shift in type and sector of employment spaces forecasts a potential slight decline in the number of jobs
- Traditional custodians, engagement and delivery program
- Conversion of carparks into active uses
- Continued environmental upgrades to the National Park and routes

11+ years

- Consolidation of residential development
- A shift in type and sector of employment spaces forecasts a potential slight decline in the number of jobs
- Delivery of further connections to Lane Cover River and Ferry
- Roll out of 18-hour economic strategy

These cycles are informed by a regular feedback process throughout and are underpinned by active engagement and codesign with the Aboriginal community.



7. NARRAMI BADU-GUMADA (CONNECTING WATER SPIRIT) NORTH RYDE RIVERSIDE

DESIGN CRITERIA

PUBLIC OPEN SPACE AND GREEN INFRASTRUCTURE

- Deliver a series of high-quality open spaces ranging in scale and form from parks, plazas and squares totalling 30,000-35,000m2 in area of new open space for this neighbourhood.
- Ensure opens spaces are inviting, accessible, diverse and comfortable, fostering active lifestyles and social connections.
- Connectivity between the open spaces and providing woven ways and through-site access to link them to each other and to the wider area is critical.
- Open space design to consider and embrace the topography of the neighbourhood
- As this is a predominantly commercial neighbourhood, the open space target should aim for all areas to be within 400m of a minimum 3,000sqm park.
- As this is neighbourhood has a considerable number of residential dwellings, the open space target should aim for all areas to be within 200m of a minimum 1,500sqm park (3,000sqm is preferred).
- 25% urban tree canopy cover through canopy trees along streets, woven ways, through-site links and open spaces. It also includes landscaping on future development sites and green elements on buildings such as green roofs or walls.
- For tree replacement, a minimum of 2:1 tree replacement ratio is to be applied.

LOCATION OF TALLER BUILDINGS

- Taller buildings should be located along Wicks Road and around the new activity hub to create identity and a hierarchy of place within the neighbourhood.
- Locate taller buildings where they have least shadow impact on public realm spaces
- Locate height to take advantage of views (Macquarie Park Cemetery and Lane Cove National Park) and open space proximity. Maximise direct solar access to adjoining properties.

BUILDING DESIGN

- Ensure a considered response to context, character, culture and Country. Well-designed buildings and spaces create places people can engage and connect with.
- Encourage innovative, creative, and high-quality building design that positively contributes to the public domain and enables a strong definition of streets and public places
- Achieve a high-level of sustainable development baseline targets for buildings within the neighbourhood
- Buildings to respond to the topography of the site

TALLER BUILDING DESIGN

- Avoid visual bulk when viewed from the public domain. Not just at a site level, but when considering the buildings together at the Activity Hub and from the M2. The design of taller buildings should allow for a permeable and interesting skyline.
- Maximise direct solar access to adjoining properties.
- Provide variation in built form and heights to ensure appropriate interface with adjacent development sites

PODIUM DESIGN

- Ensure active frontages are prioritised to address open spaces and the fine grain pathways and woven ways to help activate and provide passive surveillance to these spaces and important connectivity routes.
- Promote architecture that respects human scale at the street level and public domain interface
- Podium design to consider weather protection and clear and identifiable entrances.

BUILDING TYPOLOGIES

- Large footprint, single site buildings should be avoided and instead a series of buildings located around courtyards that allow site-through links are to be encouraged. Active frontages should be prioritised around these courtyards and the site-through links.
- Mixed use buildings with cultural and community facilities as well as residential and commercial uses are to be considered
- Educational facilities can be incorporated into the podiums of mixed use buildings
- Mixed use residential buildings with commercial podiums are encouraged to be located within the Activity Hub and the northern side of Julius Ave to provide adequate separation of dwellings to the National Park to avoid bushfire hazards.
- Encourage diversity of apartment types, sizes, and layouts to accommodate households of all ages, abilities, sizes and needs, including increased demands on space and acoustic privacy due to more people working from home.
- Use changes in scale and built form to create architectural interest and diversity and enhance relationship with the public domain.
- Location of residential buildings to be located predominantly outside the commercial core and some located within the Activity Hub. Residential buildings with commercial podiums are encouraged.



University of Sydney Health Education Building by Billard Leece Partnership and Diller Scofidio and Renfro

Buildings and landscaping to respond to the topography of the site

OVERSHADOWING

- Solar access to new public open space is a primary design objective and important criteria. All solar testing is required without the benefit of artificial solar access or heliostat intervention. This is to ensure that all the open spaces are enjoyable and sunny spaces during key periods of the day.



Public open space should embrace the topography of the neighbourhood and consider it in the design

- Open spaces are to have solar protection between 10am-2pm on the winter solstice..

7. PLACEMAKING STRATEGY SUMMARY

WHY DOES PLACEMAKING MATTER FOR MACQUARIE PARK?

Macquarie Park is a suburban business park. Like any place, it has its own challenges and opportunities, as well as assets and constraints. While it is a high-performing and nationally significant commercial centre, its constraints and challenges may impact its perception and reputation as a place where business, innovation and collaboration can thrive into the future.

MACQUARIE PARK’S CRITICAL ROLE FOR SYDNEY

In the 2016 Greater Sydney Regional Plan: A metropolis of three cities, the Greater Sydney Commission (GSC) identified Macquarie Park as a health and education precinct . Macquarie Park is also identified as a key strategic centre – one that will help deliver job targets and support the growth of Greater Sydney. With this designation comes expectations and assumptions about the kinds of jobs that need to locate in Macquarie Park that its current form and place identity are not yet prepared for.

Macquarie Park is a microcosm of local issues within a wider metropolitan and state context. It is a strategic centre for Greater Sydney and is the 6th largest CBD in Australia. It has more office space than North Sydney and Parramatta. There is still unbuilt capacity for employment floor space within existing planning controls. However, it still has a reputation as a “sprawling business park;” local office workers have expressed the desire for more places to meet, more open spaces, more retail and cultural uses that offer a reason to dwell beyond the 9-5.

Placemaking can create a better experience for people in Macquarie Park and creates better value for the businesses, institutions and communities that all share in it.

AN INFRASTRUCTURE PROBLEM, A PLACE SOLUTION

A lack of key infrastructure, like open space, community facilities and libraries, as well as a lack of connection to culture and Country, even while people are working in and living around Macquarie Park creates problems for access, diversity and inclusion. While there has been a recent large investment into public transport connectivity, the lack of an integrated place-based approach to solving movement issues means that congestion is still a problem within and around the Park. Businesses are aware that interaction and collaboration is necessary for innovation, but the urban form has not yet adapted to this shift; buildings are large, intimidating and closed off from the public realm. There is a feeling of insularity and a distinct lack of activity on the ground plane. There is little to do after 5PM. Is this the place of innovation for tomorrow, or even today?

In order for Macquarie Park to fulfil its ambitions and optimise its potential, the problem of place must be addressed. Macquarie Park is home to innovation in research, development and business; however, today, innovation districts around the world demonstrate that place aspects are vital to their success. The lack of governance and leadership to steer the direction of place have resulted in its evolution into the place it is today.

SUPPORTING NEW AND EXISTING COMMUNITIES

Beyond the boundary of the Masterplan, there are existing communities that live in and around the Macquarie Park and North Ryde area. The Herring Road and Lachlan’s Line precincts are home to more new residents than ever before. “However, the increase in residential development has not yet appreciably contributed to the area’s vibrancy and vitality .” As Macquarie Park’s worker and residential communities grow and develop in place, there will be increasing demand and need for services, amenities, social infrastructure, open space and recreation.

Students of the nearby Macquarie University also contribute to the vibrancy and vitality of a place, as well as the spirit of innovation, knowledge generation and collaboration that the business park strives to foster. Student places are expected to grow from 32,500 to 55,000 by 2030. Students will inevitably look to one of the new or existing residential areas in and around Macquarie Park for a place to live and thrive.

Supporting new and existing communities within and around Macquarie Park – this includes workers, residents and students – is crucial to ensuring its evolution from business park to an urban centre that can attract and retain a skilled employee base.



FUTURE VOICES OF MACQUARIE PARK

The change triggered by the Masterplan will and should open up space for new users of the Park. These new occupants and users will cover a wide range of interests, enriching the diversity and resilience of the district. The following narratives are a result of futuring exercises and have not been tested against market segments.



THE INVESTOR

“I was interested in new innovation hubs around Sydney to invest in new technologies and Macquarie Park is a well-organised precinct with a solid established leadership that was there from the beginning to share the venture. I am happy of being part of this exciting enterprise.”



THE MAKER

“I have a small studio in the lane behind Waterloo Road...it's part of an affordable housing development and my rent is kept low by me banking time into the community skills fund. I graduated from the Uni five years ago, and now I'm teaching two days a week and employing a graduate programmer as we grow the business.”



THE EXPLORER

“I come to the National Park every month. I have always loved to go trekking. With the new Metro, it is so much easier to get to the Park on weekends when I volunteer with the National Parks & Wildlife Services.”



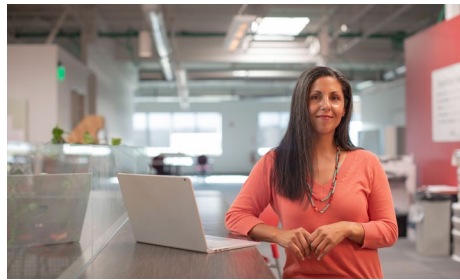
THE WIDER COMMUNITY

“I still live in Epping with my family, but now with the Metro, I take the train rather than drive. I train in the gym at Macquarie Uni and have learnt how to look after plant succulents at the community centre. My friends and I will often head out for dinner after; there is a great bar in the old office building near the station.”



THE RESIDENT

“We've just rented a place here, with a great view of Shrimptons Creek. I work in the CBD, but you can get to the city quickly. My husband works locally and just walks to work. Our daughter has just got a place at the school in Ivanhoe, which means she can just walk and we can sell the car!”



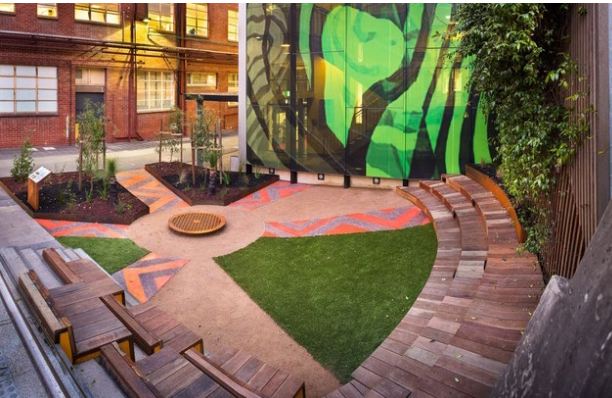
THE OFFICE WORKER

“I've worked in Macquarie Park for 10 years. It used to be more of a traditional office park, and back then it was more difficult for me to convince people to stay and work in the company. Today, the park as much more activity and it is very attractive to new employees.”

PLACEMAKING PRINCIPLES

REVEAL COUNTRY AND CULTURE

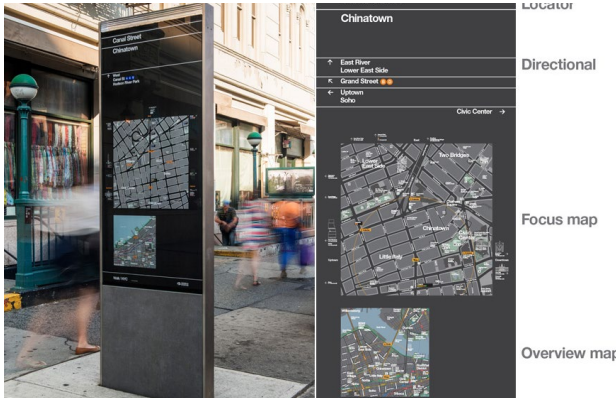
Macquarie Park's unique setting within Wallumattagal Country and history as a place of higher learning provides a foundation to build an enriched identity. Placemaking in Macquarie Park will focus on opportunities to be, see and know Wallumattagal Country through nature, culture, programming and activation.



Give Culture the spotlight



An enhanced and appropriate setting for higher learning



Roll out the Welcome mat

- Instil a clear connection to Dharug Country and Culture throughout the Investigation Area. Roll out the Welcome to Country for visitors, residents and workers with wayfinding, public art and built form that reveals Country. Establish clear guidelines for integrating Country and Culture into the public domain.
- Provide an appropriate and enhanced setting for the area's deep history as a place of higher learning. Provide subsidised incubator spaces for new startups, entrepreneurs and businesses to encourage the formation of networks and relationships, as well as fostering a spirit of competition and collaboration.
- Reconnect Macquarie Park to the natural environment by increasing access to and from the Lane Cove National Park. Reveal the buried Creeks physically and symbolically to strengthen the area's relationship to the whole of Wallumattagal Country. Design with, and not against the area's natural topography.
- Expand the network of different types of all publicly available spaces within Macquarie Park to open up the urban environment. Frame or reveal key views to built and natural assets and the surrounding area with greenery.
- Give Culture the spotlight. Increase knowledge and awareness of Wallumattagal Country and Dharug Culture through public spaces for ceremony, culture, markers and interpretation, placenaming and art. Orient new public domain improvements as a result of development towards framing cultural spaces to ensure that users are aware of them.
- Establish place governance arrangements that facilitate the leadership of traditional custodians and knowledge holders. Encourage stakeholders to actively engage with Wallumattagal Country by collaborating with traditional custodians.

REDEFINE THE SUBURBAN

Changing expectations around work environments signal a need for suburban business parks like Macquarie Park to adapt. But this does not necessarily mean turning the suburban to urban. There must be a focus on breathing new life into places by introducing qualities of urban environments that can improve amenity and liveability for all users and overcome the real challenges the suburban model has posed over the past 70 years. These include better links to public transport, an active ground plane, more public spaces like plazas and through-site-links, and a greater mix of uses and “things to do.”



Prioritise slow and low movements

- Enhance the pedestrian experience by reducing vehicle movement through Macquarie Park, providing more pedestrian crossings, utilising the Fine Grain Road Network to facilitate more organic movements around the area, and prioritising slow and low movements.
- Utilise any opportunity to integrate more crossing points because of new development.
- Make Macquarie Park a safe haven for pedestrians and cyclists.
- Get Macquarie Park moving by providing stronger links to sustainable transport – shortcuts to the nearest Metro station that can bypass the formal street grid, high-quality bicycle racks at key intersections and interchanges, widened footpaths, increased planting to provide a buffer against heavy traffic. Improve the bus priority network and reduce parking across Macquarie Park.
- Roll out the red carpet for all users. Establish a “clear front door” and an activated ground plane for new developments. Encourage the introduction of ground floor uses in new and existing buildings.
- Make Macquarie Park an 18-hour economy. Extend trading hours of core nighttime uses. Introduce temporary pop-ups near key interchanges after 5PM as a way to activate underutilised spaces. Ensure that visitors, workers and residents have multiple options for activities after 5PM.
- Improve the safety of Macquarie Park by enhancing lighting, signage, activation of the ground plane and of new and existing public spaces to keep eyes on the ground at all times of the day.
- Consider the needs of the growing communities within and around Macquarie Park. Provide new social infrastructure, like library branches and community halls, that can activate the area at all times of the day.



Establish a “clear front door” for Macquarie Park



Develop an 18-hour economy in Macquarie Park

LIFELONG LEARNING

The presence of Macquarie University, innovation and technology-related businesses have sparked ideas and contributed to Macquarie Park’s reputation as a hub for new knowledge creation. It is also a place with a deep history and tradition of exchange and trade. Opportunities for learning should be encouraged at all levels and scales. Places should cultivate a sense of curiosity and empower users to ask questions, seek answers and share knowledge.



Strengthen the relationship with Macquarie University

- Strengthen the relationship with Macquarie University. Make this relationship tangible in Macquarie Park with an increased University presence in the form of satellite campuses, incubator spaces for emerging innovators and programmed networking opportunities for students and businesses.
- Make Dharug Culture more visible throughout Macquarie Park. Integrate Dharug language and symbols on signage, wayfinding, building names and public art. Work with traditional custodians and knowledge holders to enliven the public realm with programming, activation and installations.
- Reveal the innovation that happens behind closed doors. Provide subsidised incubator spaces, flexible workspaces and advertising opportunities to interested parties from all industries: business, technology, arts, culture and science.
- Provide a space for homegrown talent to develop, thrive and connect. Increase access to and flexibility of spaces for startups, SMEs and creative industries. Use transitioning or underutilised floorspace to provide temporary workspaces or pilot spaces for new innovations out of Macquarie University and of the local community.
- Encourage built form that opens up the plots of land and connects to the public realm.
- Provide informal meeting spaces in the public realm where new friends and colleagues can run into each other, share their ideas and knowledge. Include meeting spaces in libraries, community halls and in underutilised spaces.



Reveal the innovation



Provide informal meeting spaces in the public realm

CULTIVATE THE UNDERGROWTH

Cultivating the “undergrowth” is about considering the role that small pieces play in the success of urban environments. The growth is in the details – the little things that stitch a place together and support its overall function. Small – movement, business, uses, activities – is beautiful, useful and personal.

- Implement the Woven Ways and permeate the blocky built form of Macquarie Park. Utilise new developments to provide informal paths through and around buildings that take pedestrians away from major roads and into side streets and laneways. Pilot emerging micromobility transport options at major transport interchanges.
- Consider side streets as an alternative dwelling and gathering space for pedestrians. Encourage dwell time with furniture, greenery and side-street-facing activation from local businesses.
- Take every opportunity to design with Country. Reveal the natural paths that the Creeks once took. Design with, not against the natural topography of Macquarie Park. Integrate paths and side streets that go against the typical grid style of the formal streets and encourage slow, informal movements.
- Enhance lighting and signage within the streets and spaces. Situate a user within Country through wayfinding and bespoke signage.
- Provide a total green experience by completing the urban tree canopy along major roads and intersections in Macquarie Park and to combat the urban heat island effect. Utilise greenery in the design of the public realm that is multifunctional. Introduce planting of native species and encourage the return of biodiversity into Macquarie Park.
- Consider all infrastructure, transport, open space, social and cultural, as part of one network and as an extension of the public realm. Enhance the overall pedestrian experience of Macquarie Park by improving every aspect of a journey from start to finish.
- Introduce temporal differentiation to spaces throughout the day. Activate an underutilised plaza at night with temporary uses and activities to encourage people to dwell after 5pm.
- Encourage collaboration in the development of place. Utilise new developments as opportunities for developers to integrate neighbouring plots or proposals in order to create a more cohesive public domain.



Implement the Woven Ways



Enhance lighting and signage within streets and spaces

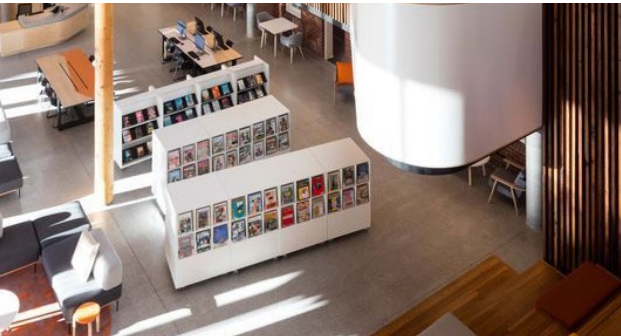


Complete the urban tree canopy

RECONNECTING TO THE MACQUARIE PARK COMMUNITY

It is crucial to acknowledge what is already there and to focus placemaking initiatives and projects towards building connections between Macquarie Park communities, both in and around the Park. The transformation of Macquarie Park must involve the people that are there today and address their present needs.

- Set the standards for social infrastructure and open space provision for commercial areas with worker communities. Use these standards to tailor the open space and social infrastructure that may be needed for new and existing communities.
- Provide a diversity of social and cultural infrastructure throughout Macquarie Park. Pilot these new uses around the Metro Stations to cultivate a sense of “arrival” at the Stations or to develop a reputation as a “destination” for pedestrians.
- Introduce longer crossing times for pedestrians. Create slow zones in side streets for a safer, more pleasant walking experience.
- Create connections to and from Macquarie Park that take pedestrians through a comfortable and complete walking environment. Utilise greenery in the design of the public realm that is multifunctional.
- Make places more inviting to stop and dwell through sensitive lighting, greenery and furniture. Encourage alfresco dining and on-street activation for businesses.
- Provide a retail and entertainment offering throughout Macquarie Park that residents and workers can enjoy. Utilise temporary uses, like pop-up outdoor cinemas, markets and carefully curated performances, to build Macquarie Park’s 18-hour economy.
- Utilise the neighbourhoods to provide a distinctive leisure offering throughout the area and reinforce Macquarie Park’s identity as a “place of many places.”
- Bring people into Macquarie Park. Extend active frontages beyond the ground plane. Encourage upper-level uses that are visible from the street to draw attention and invigorate the public realm. Provide social infrastructure, cultural space, dining, retail and temporary uses on the upper levels of buildings in order to draw people into Macquarie Park.



Provide a variety of social and cultural infrastructure



Make places inviting to stop, dwell and enjoy



Reinforce Macquarie Park’s identity as a place of many places

8. INTEGRATED TRANSPORT PLAN SUMMARY

The purpose of the Integrated Transport Plan is to provide a strategy for transport; aligned with and in support of the collaboratively developed place-based vision and objectives for Macquarie Park.

“For Macquarie Park to be a highly successful place within Sydney’s Eastern Harbour City that supports world class business, research and education opportunities, and contributes to Australia’s economy. Strong transport connections are vital for economic and social activity. To achieve this vision, Macquarie Park must be supported with strong local and regional connectivity through:

- *Activating the centre with a new Movement and Place framework,*
- *Encouraging active travel (walking and cycling) and public transport use,*
- *Providing a safe road environment, suitable pathways, and streets that balance movement of people and goods and access with amenity of place, and*
- *Enhanced accessibility to/from Macquarie Park within 30 minutes by public transport, seven days a week.”*

VISION AND OBJECTIVES

This vision is supported by a series of objectives that would shape decision-making for transport infrastructure and services. These objectives are:

1. Provide sufficient public transport services into, out of and within Macquarie Park bringing customers where they want to go and when, providing a viable alternative to private vehicles
2. Contributes to an integrated transport network across transport modes, resulting in an amenable, functional and safe transport system from door to door.
3. Enhance walking and cycling opportunity in Macquarie Park through direct and attractive connections creating a permeable network.
4. Provide sustainable access to Macquarie Park centres for people and goods while safeguarding liveability and vibrancy of place.
5. Improve public transport access to/from Macquarie Park and other key employment centres at all times of day.
6. Increase trip containment within Macquarie Park.
7. Support cross-regional freight movement along major road corridors.
8. Create an amenable, prioritised and safe pedestrian environment in Macquarie Park.
9. Improve accessibility to fast and frequent public transport services including Metro and Macquarie Centre bus interchange for all using any sustainable transport mode.
10. Reduce demand for new infrastructure by influencing customers to use Metro and other services and infrastructure with spare capacity.
11. Contribute to net-zero emission by 2050.

CHALLENGES AND OPPORTUNITIES

There are a number of challenges and opportunities that were identified as part of the overall problem definition in the ITP. These form part of the rationale in the recommended set of initiatives, to achieve the transport vision and objectives set out for Macquarie Park.

- **Capacity of the road network** – Current projections using the Sydney Strategic Travel Model indicate some 290,700 trips to/from Macquarie Park by 2041. Of these trips, 72% are forecasted to use private vehicle; a challenge that must be overcome. Lane Cove Road and Epping Road have limited capacity to accommodate additional private vehicle demand attributed to the master plan.
- **Accessibility across modes** – Infrastructure supporting the master plan must address the disparity between the 30-min travel time catchments for public transport and private vehicle, resulting in more people choosing to drive to/from Macquarie Park.
- **High parking availability** – The master plan provides an opportunity to address this existing issue through site redevelopment, which contributes to the attractiveness of the private vehicle travel, relative to other modes.
- **Housing and services closer to work** – The master plan provides an opportunity to reduce the distance between key places, such as home and work, and allow for walking/cycling to become viable choices.
- **Preserving land for future transport infrastructure** – The master plan provides an opportunity to facilitate longer-term mass-transit connections to/from Macquarie Park, beyond the time horizon of the master plan.

- **Amenity for active transport** – An opportunity is presented to plan for safe and attractive active transport infrastructure, integrated with open space and separated from general vehicle traffic, which will encourage users to adopt active travel. Greater amenity for active travel would be supported by provisions for open space through the concept of ‘Woven Ways’ and adjacent uses that activate streets.
- **Permeability of walking network** – The existing subdivisions contribute to increased door-to-door travel times for public and active transport modes. This challenge would need to be overcome by providing a dense network of walking routes via new or upgraded pedestrian-prioritised infrastructure.
- **Facilitate lower-emissions transport** – Both exhaust and noise emissions impact the amenity of the urban environment. The precinct’s focus on innovation and technology provides an opportunity to test new transport solutions, such as an accelerated adoption of electric buses and public charging stations to encourage the uptake of electric vehicles.

PROPOSED INTERVENTIONS

A total of 52 transport infrastructure and service interventions were shortlisted using high-level MCA against the transport vision and objectives. The initiatives range from local to regional transport infrastructure, such as:

- Implementing the fine-grained street network,
- Providing more signalized pedestrian crossings,
- Complete missing links in the Principal Bicycle Network,
- Delivering improved public transport links to/from Macquarie Park, such as Parramatta-Epping and strategic bus corridors to Mona Vale, Burwood, Blacktown and Parramatta,

The recommended next steps would be to validate the set of relevant transport infrastructure and service initiatives using transport and traffic modelling within a future land use scenario. This would facilitate further refinement of the initiatives.

The initiatives will need to be implemented by both local and state governments using all the available planning and delivery mechanisms. Furthermore, it is critical that appropriate sequencing of redevelopment is considered to align growth with the provision of infrastructure.



9. IMPLEMENTATION

GOVERNANCE

Macquarie Park has been identified as an important economic centre for Sydney, with a significant profile as an innovation district. To achieve this vision, a tailored governance structure is required to ensure delivery of agreed objectives take place through targeted capacity and accountability mechanisms. This section discusses possible governance approaches for delivery of the masterplan. Whilst there are many models of area governance that may be applicable to Macquarie Park and implemented across the globe including ad-hoc arrangements with loose coordination, the specific content, and existing ‘toolbox’ of governance approaches need to be explored before applying new approaches.

In recent times, the NSW Government have initiated a number of reforms including the creation of the Greater Sydney Commission (GSC) with an integrated planning and collaboration approach and the Department of Planning, Infrastructure and Environment (DPIE) with its commitment to precinct planning and infrastructure integration. Additionally, Transport for New South Wales (TfNSW) has developed a more place-based way of working. The realisation of the precinct in Macquarie Park will require a tailored governance approach, where the successful delivery of the masterplan and associated actions will only be achieved through coordinated area development with dedicated actors from the *public sector (GSC, DPIE, TfNSW), community and private sector organisations working together.*

Local private sector partners and the University have created a structure to maximise collaboration between them and help to realise the potential for the district and additionally the Ryde Coordination Group (RCG) has been created. This has enabled cross government coordination and collaboration with local council, community, university and private sector to ensure that while securing the economic vitality of the area, its ‘quality of place’ and amenity are improved and that all the mix of uses and place-making objectives in the masterplan are achieved.



Finally, the GSC, whose area representative chairs the RCG, has developed the Strategic Infrastructure and Services Assessment (SISA), a ‘lite’ form of a Place Infrastructure Compact (PIC), to ensure coordinated infrastructure delivery in tandem with development. The key actors to achieve the vision of Macquarie Park already exist, however the establishment of a formal, legal arrangement may be needed. The objectives of the formal arrangement could include developing and managing the future growth including economic development and operation of Macquarie Park and curating the ecosystem and delivering the actions outlined in the economic development study.

Custodial representation within the governance frameworks and structures for Macquarie Park should be considered to ensure that there is an ongoing respect and care for Country built into its future. Further information on potential models for indigenous representation can be found in the supporting document – Country Centred Design Framework and Report.

Clear governance will enable Macquarie Park to fulfil its potential as a world-leading business park and progress should be reviewed regularly to ensure that delivery is taking place to the level of integration and to the timeframes anticipated – and whether further institutional innovation is required.



INFRASTRUCTURE NEED

Table to be updated to include wider corridor projects following receipt of updated GSC report

The Greater Sydney Commission (GSC) is facilitating a cross-government Strategic Infrastructure and Services Assessment (SISA) to support the Macquarie Park Investigation Area (MPIA) Strategic Masterplan, and growth of the wider Macquarie Park Corridor (MPC). This assessment has looked at infrastructure and service proposals at a very strategic level in regards to transport, roads, green infrastructure, education, health, arts and culture, sports facilities and water for the Macquarie Park Corridor which include the Macquarie Park Investigation Area and the two adjacent UAP's of Herring Road and North Ryde. The assessment also looks at the timing of when construction will start and when it will be ready for operation.

INITIATIVE	AGENCY	LOCATION	START (CONSTRUCTION)	START (OPERATION)
Additional access points to existing parks	DPIE Green Infrastructure	All Neighbourhoods	2022	2027
Deliver Finer Grain Street Network	Ryde Council	North Ryde Riverside	Post 2026	Post 2026
Waterloo Road: Intersection improvements Byfield Rd, Khartoum Rd, Thomas Holt Rd	Ryde Council	Waterloo Park, Macquarie Living Station	Post 2026	Post 2026
Waterloo Road: New and upgraded paths	Ryde Council	Waterloo Park, Macquarie Living Station	Post 2026	Post 2026
Waterloo Road: Additional traffic management measures	Ryde Council	Waterloo Park, Macquarie Living Station	Post 2026	Post 2026
Lower speed limits - Waterloo Road, Khartoum Rd and Wicks Road	TfNSW	Waterloo Park, Macquarie Living Station	Post 2026	Post 2026
Introduce electric vehicle charging stations	Ryde Council	All Neighbourhoods	2021	2021
Pedestrian crossings on all legs of intersection	TfNSW	Lane Cove/Waterloo Road; Lane Cove/Talavera Road; Epping Road/Lane Cove Road	Post 2026	Post 2026
Provide more signalised pedestrian / cyclist crossings across Talavera Road	Ryde Council	Talavera Road	Post 2026	Post 2026
Improving waterways and water dependent ecosystems	DPIE Green Infrastructure	North Ryde Riverside 'Narrami Badu Gumada'; Wicks Road South 'Gurungal'; Shrimptons Quarter 'Waragal Birrung'; and Macquarie Living Station 'Gari Nawi'	2024	2029
Talavera Road: Reallocation of road space	Ryde Council	Talavera Road	Post 2026	Post 2026
Lower speed limits - Lane Cove Road (State Road)	TfNSW	Lane Cove Road	Post 2026	Post 2026
Lane Cove Road: Intersection improvements at Waterloo Rd and Talavera Road (at grade)	TfNSW	Lane Cove Road	2023	Post 2026

Epping Road: Intersection improvement at Wicks Rd (at grade)	TfNSW	Epping Road	Post 2026	Post 2026
Deliver comprehensive network of dedicated cycle & micro-mobility connections	Ryde Council	All Neighbourhoods	Post 2026	Post 2026
Deliver increased publicly accessible bicycle parking	Ryde Council	All Neighbourhoods	Post 2026	Post 2026
New and upgraded bus stops	TfNSW/Ryde Council	All Neighbourhoods	2026	Post 2026
Provide more signalised pedestrian / cyclist crossings across Waterloo Road	Ryde Council	Waterloo Road	Post 2026	Post 2026
Khartoum Road/Banfield Road intersection improvements	Ryde Council	Waterloo Park 'Butbut'	Post 2026	Post 2026
Open space canopy - plant existing local parks to 60% canopy	DPIE Green Infrastructure	Waterloo Park 'Butbut'; Macquarie Living Station 'Gari Nawi'	2024	2028
Street planting along existing roads	DPIE Green Infrastructure	North Park 'Ngalawala reciprocity'; Shrimptons Quarter 'Waragal Birrung'	2024	2027
Waterloo Road street canopy	DPIE Green Infrastructure	Waterloo Park 'Badu Nawi'; Wicks Road South 'Gurungal'; Porters Creek 'Burbigal'; Macquarie Living Station 'Gari Nawi'	2024	2029
Street planting along new road layout	DPIE Green Infrastructure	All neighbourhoods	2025	2028
Open space canopy - plant proposed local parks 60% canopy	DPIE Green Infrastructure	All neighbourhoods	2024	2029
Deliver Finer Grain Street Network	Ryde Council	North Park; Shrimptons Quarter, Porters Creek, Macquarie Living Station, Wicks Road South, Waterloo Park	2026	Post 2026
Pedestrian bridge crossings of Lane Cove Road	TfNSW	In vicinity of Hyundai Drive, Dirrabari Road and at Waterloo Road	2026	Post 2026
Provide alternative to M2 on-shoulder link as off-road cycleway through precinct	Ryde Council		Post 2026	Post 2026
BPIP: Herring Road/Waterloo Road and Waterloo Road/Lane Cove Road intersections	TfNSW	Macquarie Living Station	2018	2022
BPIP: Waterloo Road & Lane Cove Road corridors	TfNSW	Waterloo Road and Lane Cove Road	Post 2026	Post 2026
Provide footpath adjacent to Lane Cove Road from Talavera Rd to Fontenoy Rd (potentially grade separated)	Ryde Council	North Park; Porters Creek	Post 2026	Post 2026

INFRASTRUCTURE SISA

1. Increase Sydney Metro services through Corridor

2. Investigate East-west public transport connection from Mona Vale to Macquarie Park (Mona Vale - Macquarie University Rapid route by 2036).

3. Investigate Strategic Bus Corridor from Macquarie Park to Parramatta via Eastwood (Rapid route by 2036)

4. Investigate Strategic Bus Corridor from Macquarie Park to Hurstville (Rapid route by 2036)

5. Investigate Strategic Bus Corridor from Macquarie Park to Blacktown via M2 (Rapid route by 2030)

6. Complete missing links in Macquarie Park's centre-serving local / regional cycling network

7. Cycle link to Northern Beaches via A3

8. Infrastructure to support bus operations

9. Lower speed limits (State Road) - Lane Cove Road

10. Lane Cove Road: Intersection improvement at Talavera Rd (at grade)

11. Epping Road: Intersection improvement at Wicks Rd (at grade)

12. Pedestrian bridge crossing of Lane Cove Road in vicinity of Hyundai Drive

13. Pedestrian bridge crossing of Lane Cove Road in vicinity of Dirrabari Road

14. Pedestrian bridge crossing Lane Cove Road at Waterloo Road intersection vicinity

15. Lane Cove Road/Waterloo Road: Ensure pedestrian crossings on all legs of intersection
16. Lane Cove Road/Talavera Road: Ensure pedestrian crossings on all legs of intersection

17. Epping Road/Lane Cove Road: Ensure pedestrian crossings on all legs of intersection

18. Epping Road/Delhi Road: Ensure pedestrian crossings on all legs of intersection

19. Waterloo Road/Macquarie Park Shopping Centre: Add mid-block crossing to access Macquarie Park Shopping Centre

20. Talavera Road/Christie Road: Ensure pedestrian crossings on all legs of intersection

21. Talavera Road/Macquarie Park Shopping Centre: Ensure pedestrian crossings on all legs of intersection

22. Macquarie University Bus Interchange (MUBI)

23. Northern bus layover

24. Southern bus layover

25. BPIP Stage 1B:Upgrades to Herring Road and the intersections with Waterloo Road, Epping Road and Ivanhoe Place.

26. BPIP Stage 1A: Waterloo Road & Lane Cove Road Intersection upgrade

27. Investigate Parramatta to Epping Mass Transit / Train Link

28. Investigate Macquarie Park to South-East Sydney Transit / Train Link (incl. Transport Hub)

Summary list of identified infrastructure requirements.
To be developed/coordinated with GSC and DPIE

OTHER INITIATIVES

1. Lowering speed limits on Waterloo Road, Herring Road, Khartoum Road, Wicks Road

2. Pedestrian crossings at intersections of Waterloo Road and Byfield Street, Khartoum Road, Thomas Holt Drive and Coolinga St, as well as Talavera Road near OPPO Service centre

3. Intersection improvement Banfield Road and Khartoum Road

4. Improvement of Lucknow Road to Epping Road left-out ramp

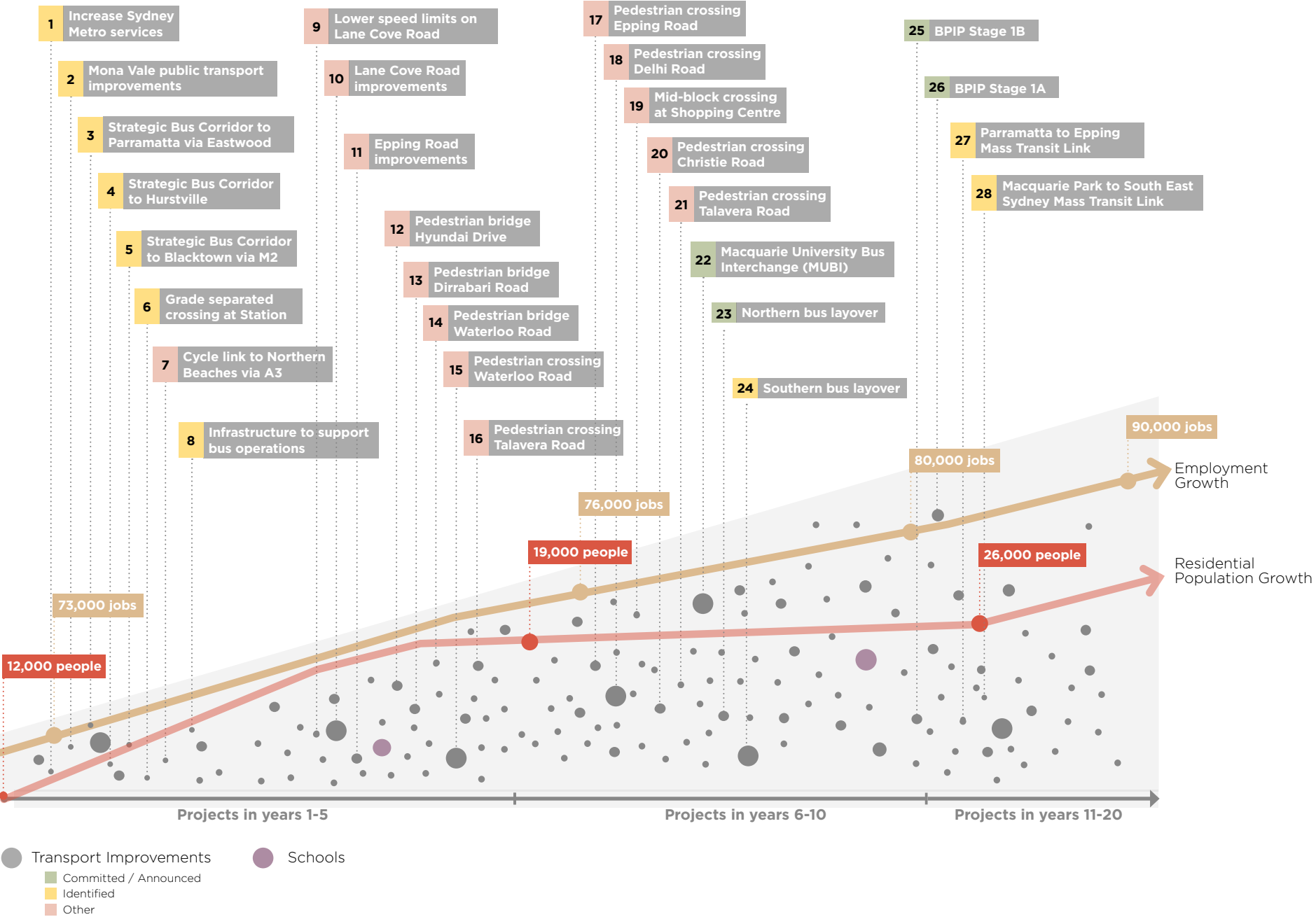
5. Grade separated movements at Epping Road westbound to/from Lyon Park Road and Lane Cove Road southbound into Talavera Road westbound
- Will likely need to be undertaken in accordance with emerging new speed zoning guidance.*

To be further investigated in collaboration with Council, DPIE, TfNSW and GSC

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STAGING

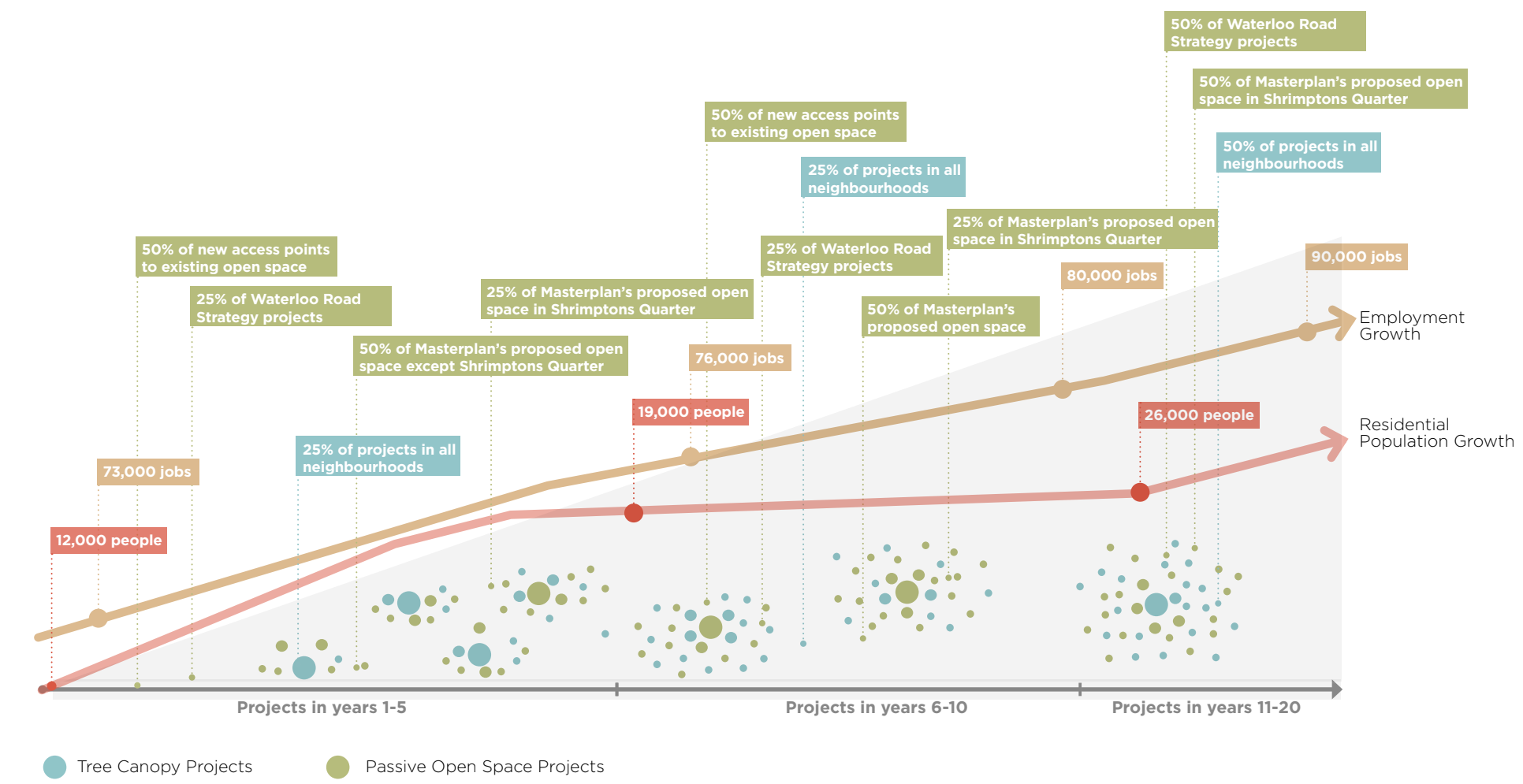
The significant infrastructure investment needed to support growth in the Innovation District means not all neighbourhoods can be masterplanned simultaneously. Masterplanning of the neighbourhoods by State and Local Government would therefore be staged. The neighbourhoods chosen to be staged first would be selected by assessment against criteria including development readiness and ability to provide infrastructure to meet identified need. Identified infrastructure provision thresholds will have to be met to enable further growth.”

The diagram adjacent captures the sequence of interventions and projects in the early, medium and long term set out in the Strategic Infrastructure and Services Assessment. This is based upon the UAP boundaries which extend beyond the neighbourhood extents described in this document. These also include Green Infrastructure, with Passive Open Space and Green Canopy improvements, as well as the Population and Jobs estimations by the Redistribution.

In terms of Passive Open Space, this will mean that during the next 20 years the park will implement an increase in accessibility from 8% to 41% for the 200m walking catchment, and from 29% to 80% for the 400m walking catchment. Resulting in 91% of residents within 800m reachment of Passive Open Space.

The Green Canopy in all neighbourhoods will be at least 25%, apart from Shrimptons Quarter that already is well above this average.

GREEN INFRASTRUCTURE SISA





Planning,
Industry &
Environment

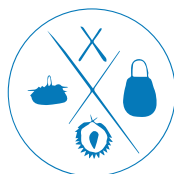
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OLD WAYS, NEW