

Bradfield City Centre Master Plan (WSA_MP02)

Site Specific Development Controls

215 Badgerys Creek Road, Bradfield (Lot 3101 DP1282964)

September 2024

nsw.gov.au/bradfield-development-authority



Artist's impression of Bradfield City Centre

Acknowledgement of Country

Aboriginal people have had a continuous connection with the Country encompassed by the Western Parkland City (the Parkland City) from time immemorial. They have cared for Country and lived in deep alignment with this important landscape, sharing and practicing culture while using it as a space for movement and trade.

We Acknowledge that four groups have primary custodial care obligations for the area: Dharug/Darug, Dharawal/Tharawal, Gundungurra/Gundungara and Darkinjung. We also Acknowledge others who have passed through this Country for trade and care purposes: Coastal Sydney people, Wiradjuri and Yuin.

Western Sydney is home to the highest number of Aboriginal people in any region in Australia. Diverse, strong and connected Aboriginal communities have established their families in this area over generations, even if their connection to Country exists elsewhere. This offers an important opportunity for the future of the Parkland City.

Ensuring that Aboriginal communities, their culture and obligations for Country are considered and promoted will be vital for the future of the Parkland City. A unique opportunity exists to establish a platform for two-way knowledge sharing, to elevate Country and to learn from cultural practices that will create a truly unique and vibrant place for all.



Garungarung Murri Murri Nuru (Beautiful Grass Country)
Artwork created by Dalmarrri artists Jason Douglas and Trevor Eastwood for the Bradfield Development Authority.

Contents

Master plan context	7	Bradfield City Centre Complying Development Code	45
1.1 The Aerotropolis planning framework	9	6.1 Bradfield City Centre Complying Development	46
1.2 Master Plan process	9	6.2 General requirements for complying development under this Master Plan	46
1.3 Aerotropolis Context	10	6.3 Suspension of covenants, agreements and instruments	47
Introduction	15	6.4 Development that is complying development under this Master Plan	48
2.1 Purpose of this Master Plan	16	6.5 Development that is not complying development under this Master Plan	48
2.2 Land to which the Master Plan applies	16	6.6 Meaning of “specified purpose”	48
2.3 Status of the Master Plan	16	6.7 Aerotropolis Certificate	49
2.4 Relationship to instruments and other documents	17	6.8 Complying Development Certificates	49
2.5 Contributions	18	6.9 Complying Development Standards for Change of Use in Mixed Use zone and Enterprise Zones in the Bradfield City Centre under this Master Plan	49
Bradfield City Centre vision and principles	21	Land use and built form	53
3.1 Vision	22	7.1 Land use character	54
3.2 Master Plan objectives	24	7.2 Height of buildings	56
3.3 Designing with Country key values	26	7.3 Floor space distribution	58
3.4 Built form design principles	30	7.4 Street setbacks	60
Bradfield City Centre Master Plan	33	7.5 Activation	62
4.1 Master Plan	34	7.6 Street wall heights	66
Design Excellence Strategy	37	7.7 Building footprints	68
5.1 Purpose of this strategy	38	7.8 Solar access	70
5.2 Definitions	38	7.9 Building materiality	72
5.3 Objective	38	7.10 Affordable Housing	73
5.4 Consideration of design excellence	39	General controls	75
5.5 Controls	39	8.1 Canopy cover and deep soil	76
5.6 Design Excellence Framework	39	8.2 Water sensitive urban design	77
5.7 Competitive design excellence process	40	8.3 Public art	78
5.8 State Design Review Panel	42		
5.9 Local Design Review Panel	42		

Contents (cont.)

8.4 Urban heat island effect	79	9.17 Green Loop	116
8.5 Passive heating and cooling	80	Public domain and public open space	119
8.6 Wind impacts	81	10.1 Key city spaces	120
Movement	83	10.2 Open space provision	122
9.1 Pedestrian network	86	10.3 Central Park	124
9.2 Cycling network	88	10.4 City Walk East	128
9.3 Public transport network	90	10.5 Green Loop	132
9.4 Street types	92	10.6 Local Parks	136
9.5 Metro Link Boulevard	94	10.7 The Parklands	140
9.6 Sub-Arterial Road	96	10.8 City Parklands West	142
9.7 Transit Boulevard (bus zone)	98	10.9 City Parklands East	146
9.8 Transit Boulevard (outside bus zone)	100	10.10 Wetland Walk	150
9.9 Commercial High Street Type A	102	Social and cultural infrastructure	155
9.10 Commercial High Street Type B	104	11.1 Social infrastructure indicative locations	156
9.11 City Street	106	Staging and infrastructure delivery	161
9.12 City Walk West Street	108	12.1 Staging plan	162
9.13 City Walk East Street	110	12.2 Stage 1	164
9.14 City Lane –Shared zone	112	Appendix A	166
9.15 City Lane –Pedestrian only	112	Bradfield City Centre Master Plan – Variations to the Aerotropolis DCP	167
9.16 City Parklands Promenade Street	114		

Glossary of terms

AS	Australian Standard
Aerotropolis	Western Sydney Aerotropolis
BC Act	Biodiversity Conservation Act 2016
CIV	Capital Investment Value
DA	Development Application
DP	Deposited Plan
DPHI	Department of Planning, Housing and Infrastructure
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
LEP	Local Environmental Plan
LGA	Local Government Area
NSW Government	State Government for NSW
SEPP	State Environmental Planning Policy
Aerotropolis DCP	Western Sydney Aerotropolis Development Control Plan -Phase 2
Precinct Plan	Western Sydney Aerotropolis Precinct Plan
Western Parkland City SEPP	State Environmental Planning Policy (Precincts -Western Parkland City) 2021
TAP	Western Sydney Aerotropolis Technical Assurance Panel
GFA	Gross floor area

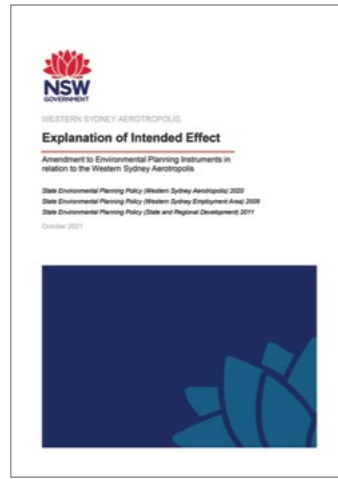
1

Master plan context



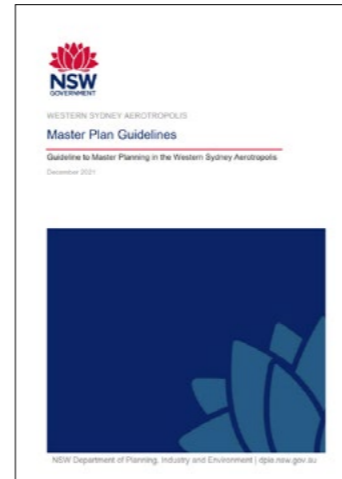
Western Sydney Aerotropolis Plan 2020

Strategic Vision



State Environmental Planning Policy (Precincts – Western Parkland City) 2021

Planning Legislation with key planning maps to support the vision



Master Plan Guidelines 2021

The Guidelines establish the steps in the preparation of a Master Plan

1.1 The Aerotropolis planning framework

Since the Federal Government’s announcement of the Western Sydney Airport in 2014, the Government’s vision of the land surrounding the airport has been detailed in several plans, policies, and environmental planning instruments (EPIs).

The first phase of the Western Sydney Aerotropolis Planning Package was finalised in September 2020 and included the *Western Sydney Aerotropolis Plan*, *Interim Western Sydney Aerotropolis Development Control Plan – Phase 1* (Phase 1 DCP) and *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (Aerotropolis SEPP).

In March 2022, the Aerotropolis SEPP, was consolidated into Chapter 4 ‘Western Sydney Aerotropolis’ of the *State Environmental Planning Policy (Precincts – Western Parkland City) 2021* (Western Parkland City SEPP), as part of the government’s wider suite of reforms to deliver a better planning system for NSW.

The Western Sydney Aerotropolis Precinct Plan (Aerotropolis Precinct Plan) for the initial precincts was finalised in March 2022, followed by the *Western Sydney Aerotropolis Development Control Plan – Phase 2* (Aerotropolis DCP) which was finalised in November 2022 which supersedes the Interim Phase 1 DCP.

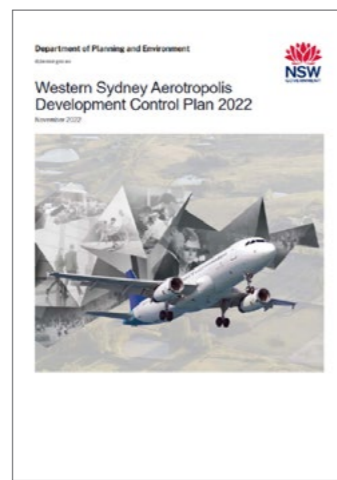
1.2 Master Plan process

Clause 4.41 of the Western Parkland City SEPP includes an optional master planning process for certain land within the Western Sydney Aerotropolis, providing landowners with the opportunity to access an alternative development approval pathway in defined circumstances. The Bradfield City Centre Master Plan has been prepared in accordance with the Clause 4.41 of the Western Parkland City SEPP and the Master Plan Guidelines.



Western Sydney Aerotropolis Precinct Plan 2022

Provides more detail to support the Western Parkland City SEPP and inform the Master Plan



Western Sydney Aerotropolis Development Control Plan Phase 2 2022

Provides controls to supplement the Western Parkland City SEPP, Western Sydney Aerotropolis Plan and Precinct Plan



Bradfield City Centre Master Plan 2024

The Master Plan responds to planning requirements and guides future development of Bradfield City Centre

1.3 Aerotropolis Context

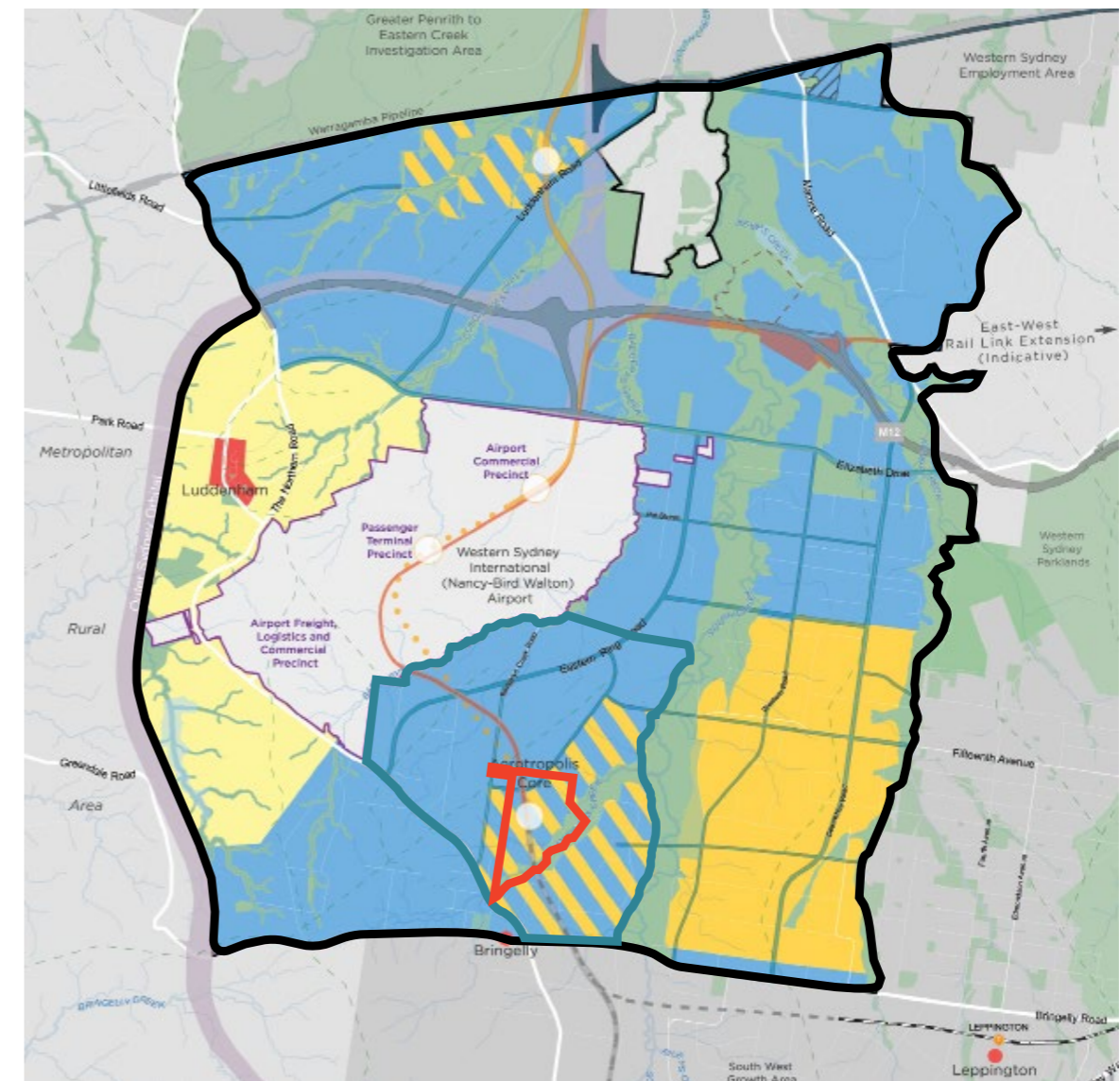
Western City District Plan





 1.5m residents

 800,000 jobs







Western Sydney Aerotropolis Plan



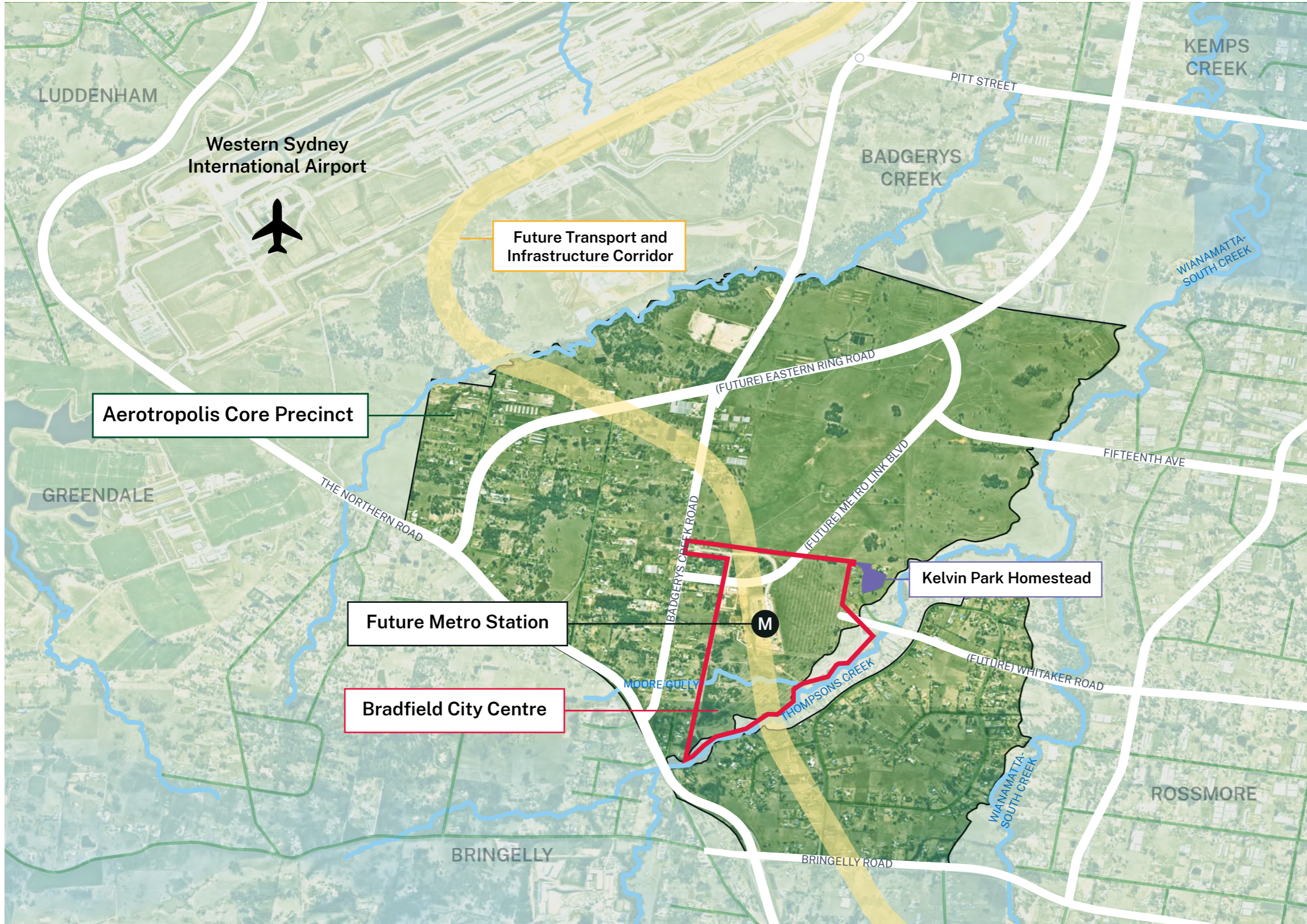
 11,000ha

 30,000 residents

 100,000 jobs

-  Aerotropolis Core
-  Bradfield City Centre
-  Enterprise
-  Urban Land
-  Mixed Use
-  Agribusiness
-  Environment and Recreation

Context map



2

Introduction

2.1 Purpose of this Master Plan

The purpose of the Bradfield City Centre Master Plan Site Specific Development Controls (Bradfield City Centre Master Plan) is to guide development in the Bradfield City Centre by:

- Identifying the vision, objectives, Master Plan diagrams, and key outcomes for the future development of the Bradfield City Centre
- Supplementing the Aerotropolis DCP with site specific development controls
- Establishing a site specific Design Excellence Strategy for the Bradfield City Centre
- Establishing Complying Development provisions for the Bradfield City Centre .
- Communicating the planning, design and environmental objectives and controls against which the relevant consent authority will assess development applications
- Ensuring the orderly, efficient, and environmentally sensitive development of the Bradfield City Centre
- Promoting high-quality urban design and environmental outcomes.

2.2 Land to which the Master Plan applies

This Master Plan applies to land at 215 Badgerys Creek Road, Bradfield (Lot 3101 DP1282964) referred to as the Bradfield City Centre.

2.3 Status of the Master Plan

The Bradfield City Centre Master Plan has been prepared by the Bradfield Development Authority in accordance with the Section 4.41 of the Western Parkland City SEPP and the Master Plan Guidelines.

The date that this Master Plan (WSA_MP02) is approved by the Minister for Planning and Public Spaces is the date that this Master Plan is published on the NSW planning portal.

Approval/publication date: September 4, 2024.

Any changes to the Master Plan are to be approved in accordance with Section 4.1 of the Western Parkland City SEPP and the Master Plan Guidelines.

Section 4.42 of the Western Parkland City SEPP sets out that development consent must not be granted to development on the following land unless the consent authority has considered the Master Plan or draft Master Plan:

- land to which a Master Plan applies or is proposed to apply,
- land shown within the Aerotropolis that is adjacent to land to which a Master Plan applies or is proposed to apply.

2.4 Relationship to instruments and other documents

Relationship to the Aerotropolis Precinct Plan

This Master Plan supplements the Aerotropolis Precinct Plan by providing site specific development controls for the Bradfield City Centre.

Relationship to the Aerotropolis Development Control Plan

This Master Plan forms part of the Aerotropolis DCP and provides site specific development controls for the Bradfield City Centre.

It provides place based development controls to guide future development in Bradfield City Centre. This includes alternative benchmark solutions and additional to those in the wider Aerotropolis DCP as indicated by the icons shown below.

Alternative benchmark solution

Items with this icon provide an alternative benchmark solution from the Aerotropolis DCP that is more appropriate for Bradfield City Centre

Additional performance outcome

1. Items with this icon provide additional performance outcomes not addressed in the Aerotropolis DCP.

Additional benchmark solution

1. Items with this icon provide not addressed in the Aerotropolis DCP

In the event of any inconsistency between the Master Plan and the Aerotropolis DCP, the Master Plan will prevail to the extent of the inconsistency.

Appendix A of this Master Plan details where the Aerotropolis DCP benchmark solutions have been varied or replaced by alternative benchmark solutions.

2.5 Contributions

Development within the Bradfield City Centre will be subject to local infrastructure contributions under local contributions plans prepared by Council as well as State infrastructure contributions. State contributions will be in accordance with the Aerotropolis Special Infrastructure Contributions Area until 1 July 2026 when contributions will transition to the Housing and Productivity Contributions Scheme.

Any public works outside of the State or local contribution planning framework is to be provided by the proponent or developer in agreement with the future asset owner. Any works in kind will only be credited against the relevant contributions plan or negotiated through a Voluntary Planning Agreement (VPA).

Land to which this Master Plan applies



3

Bradfield City Centre vision and principles

3.1 Vision

Bradfield City Centre is a 24/7 ecosystem of culture, creativity and innovation in a living landscape of inspiration and experience.

Here, ambition and opportunity come together in new ways to dream and deliver an extraordinary future for the people of Western Sydney and beyond.

A future defined by our rich indigenous culture and shared Australian identity; by proud storytelling, respected heritage and connection to Country.

A future of bolder ideas and innovation fuelled by free-flowing knowledge and collaboration.

A future of net zero footprints and smarter ways for people, the environment, and business to thrive together.

Underpinned by ideals of diversity and inclusivity, progress and reflection, prosperity and sustainability, Bradfield City Centre is a million futures waiting to be written.



Artist's impression of Bradfield City Centre

3.2 Master Plan objectives

The Master Plan has 10 key objectives for the city to achieve the vision.

Connected to Country



Bradfield City Centre will be shaped by Country from the preservation of the valued waterways, riparian zones, trees and vegetation; retention of views and connections from the ridges the creeks; and restorative planting to care for Country. There will be places to learn about Country, dedicated cultural spaces and a natural and cultural Green Loop weaving through the city. First Nations cultural values and stories will also guide planting, materials, art, lighting, signage and language. Bradfield City Centre will also accommodate infrastructure and facilities such as a First Nations cultural centre, specialised health and childcare services and access to education and housing.

Innovation ecosystem



Bradfield City Centre is planned to be one of Australia's major innovation ecosystems that co-locates organisations, institutions and high technology industries to collaborate, innovate, research, and develop. Bradfield City Centre will be globally attractive to businesses and investment with its unique offering as a sustainable parkland city that is well connected locally and globally with extensive public transit to Greater Sydney and 5 minute access to the new Western Sydney International Airport. Bradfield will showcase innovation with smart city technologies and advanced building designs.

Climate resilient



Designed with a landscape and place focus, Bradfield City Centre will be a cool and green city with innovative green corridors for people, plants, water and infrastructure that connect the entire city. There will be an intertwining network of diverse and vibrant public spaces that provide immersible and sensory experiences, achieving urban cooling through water sensitive design and an average of 40% tree canopy cover, supporting the health and well-being of all living organisms, including people, habitats, and pollinators. Buildings will feature greenery to help address urban heat in the city, and will meet high performance requirements across water, energy, waste, adaptability, health and innovation.

24/7 Vibrancy



Bradfield City Centre will become a thriving 24/7 metropolis serving the curfew-free Western Sydney International Airport. It will offer major outdoor event spaces, indoor performance venues, cultural centres, public spaces with evening activation and creative lighting, hotels, restaurants, bars and more to attract workers, residents and visitors to enjoy the active city atmosphere throughout the week, weekends and evenings.

World class parklands



Bradfield City Centre will deliver a large part of Thompsons Creek regional parklands which connects into the broader Wianamatta-South Creek system that spans Western Sydney. The parkland is a place for human recreation and experience, is culturally important and sensitive and is ecologically significant. The parklands will prioritise environmental regeneration, restore waterways and rebuild biodiversity while integrating water and landscape design to create a highly valued and unique place for the city. The parklands will also accommodate a regional swimming destination and a large scale performance/ events space, framed with a range of cultural, entertainment and recreation uses to create hubs of activity.

Central park



Located in the heart of Bradfield City Centre is Central Park, an approximately 2ha city park which is intended to become the main civic and gathering place and the main arrival and welcoming place by transit. It is the place where people of all diversities come together, stay, exchange and where the city's life thrives. It is a place that welcomes all, provides a variety of adventures and activities and showcases a green, blue, multicultural city.

Global connection



Bradfield City Centre will provide world-class, safe, and accessible public transport that provides a 5-minute journey to the Western Sydney International Airport and rapid connections to Greater Sydney. A major public transport interchange with rail and extensive bus network is located in the centre of the city fronting Central Park to provide a welcoming parkland experience on arrival. The interchange is supported with a transit boulevard that connects dedicated busways to destinations north and south of the city.

Streets for all people



Bradfield City Centre is structured with a variety of streets that are safe and green to create a walking, cycling and micro-mobility paradise. Speeds will be limited to 40km/hr or less throughout the city, extensive greenery will be achieved with ambitious tree canopy targets and there will be a world-class network of separated bike lanes and safe cycling streets. From the larger transit boulevards, commercial high streets, and pedestrian malls, to the smaller city streets and fine-grain network of shared zones and pedestrian lanes, the street network will create a highly connected and accessible city for all and will support a vibrant, human scale and social urban fabric with diverse experiences.

Fine grain places



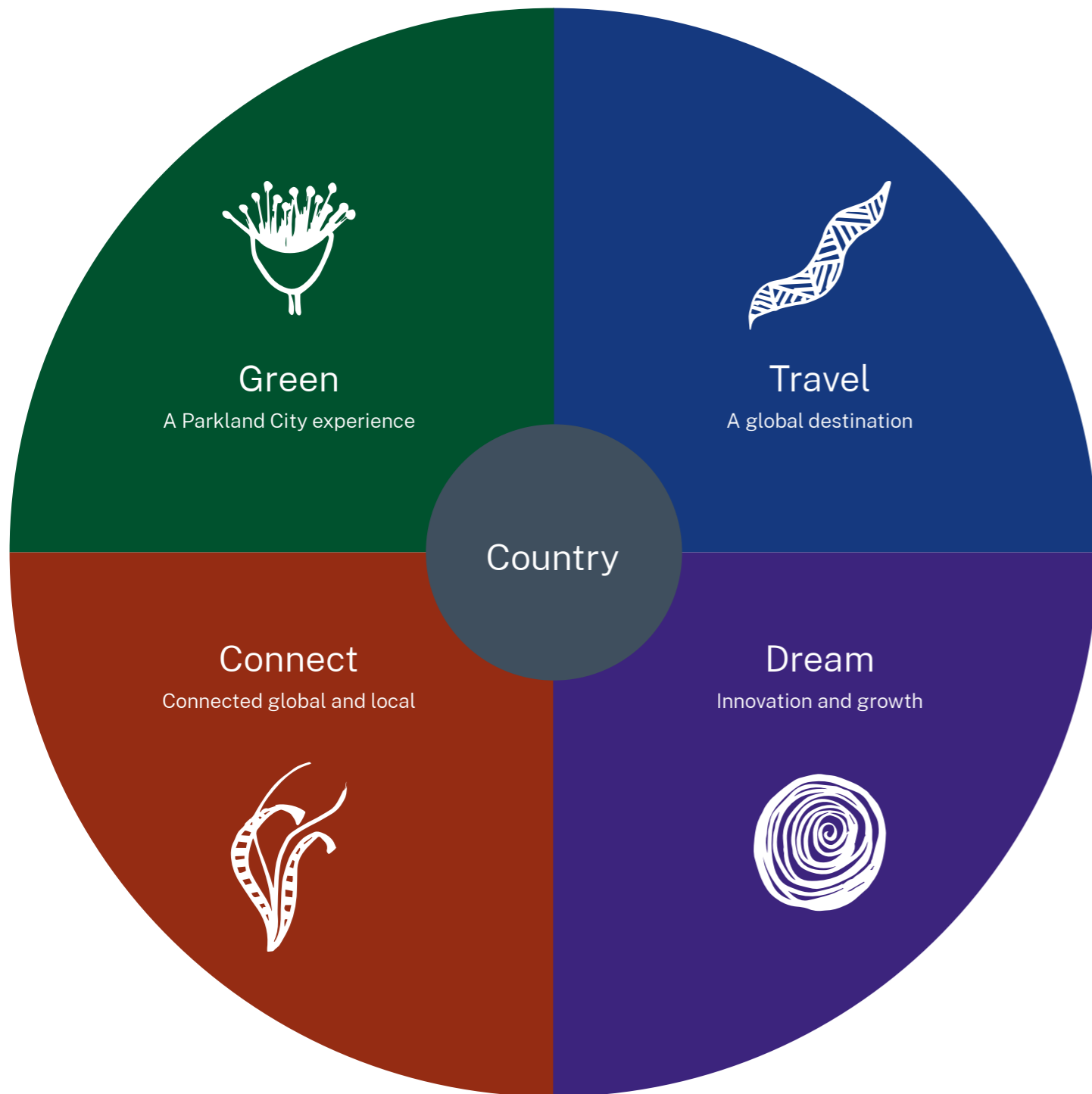
Bradfield City Centre aims to create a vibrant, attractive and distinctive urban experience with active street frontages, a variety of street interface design, a network of fine-grain shared zones and pedestrian lanes and attention to the detail of the public domain with high quality materials, art, lighting, furniture and greenery.

Design excellence



Bradfield City Centre will showcase design excellence in the buildings and public domain through high quality design controls and guidance supported by a design excellence process. Bradfield City Centre aims to raise the benchmark in design with Country, design for climate, innovation and sustainability, energy and water efficiency and harvesting, sustainable materials selection and provision of greenery on ground, walls and roofs.

3.3 Designing with Country key values



Source: Destination NSW

Four key values provide the foundation for the Master Plan and collectively form the connecting with Country framework to ensure country underpins all aspects of city making.

Green A Parkland City experience



Set on the water Country of Wianamatta-South Creek, Thompsons Creek and Moore Gully, Bradfield City Centre will set a new benchmark for Designing with Country, through the blue-green city with a network of parklands, leafy neighbourhoods, glistening waterways, water on the surface and within the streets to cool and enhance the City Centre experience.

Bradfield City Centre will embody the most aspirational greenery targets for the public domain, tree canopy and buildings and will feature a network of parklands, the Green Loop and leafy neighbourhoods.

The City's reputation as the most liveable, resilient, greenest and sustainable city will be unrivalled.

Key elements to consider include:

- Protect and restore ecologies – caring for Country
- Create complete ecologies integrating natural ecosystems
- Connected ecosystems through blue-green infrastructure
- Respecting natural water flows
- Pedestrianised Green Loop to integrate and prioritise Country and First Nations culture in the city
- People as a part of Country - consider all other living and non-living elements of this place
- Green streets and places - green and permeable surfaces, tree canopy
- Urban heat mitigation.

Travel A global destination



Bradfield City Centre, a global gateway via the Western Sydney International Airport and transit connections to Greater Sydney, will be the economic and employment heart of Western Sydney, and is envisaged to become a destination of choice for travellers and a location of choice for business due to its excellent connectivity.

Bradfield City Centre will also connect to First Nations cultural narratives and with the richness of the world's oldest living cultures expressed throughout the urban fabric of the city. Interwoven is a celebration of the diverse ethnicities that exist in Western Sydney to create a unique tapestry of culture.

Key elements to consider include:

- Spaces to acknowledge, respect, learn about and value Country
- A unique Western Sydney experience and sense of place, character and identity
- A city defined through travel and journey
- A legible city with wayfinding connected to place
- Critical mass to support intensity and diversity of activity and uses for work, visit, study, live, and invest
- Places for all regardless of age, gender, income, ability, culture or religion.

Connect Connected global and local



Bradfield City Centre will be the most well connected city in Australia, centred on transit with rail and rapid bus connections, and with the most walkable and bikable urban design, and street network providing an equitable and efficient transport system.

Bradfield City Centre aims to be an exemplar model of an urban city with intricate connection to Country and local (Dharug) First Nations culture, knowledge and stories, as well as the most culturally diverse and welcoming global city.

Key elements to consider include:

- Dedicated First Nations cultural space
- Easy, safe and equitable access
- Inclusive and safe for all ages, genders, race and abilities
- Streets as places
- Fine grained cultural and economic exchange connected to place
- An interconnected city - physically, visually, and culturally
- Connecting to Sky Country
- Buildings that facilitate connection to Country
- Arts and culture for storytelling
- First Nations language embedded across the city in consultation with Traditional Custodians
- Social and spiritual connectedness
- Access to housing, employment, education, health, recreation and community facilities.

Dream Innovation and growth



Let's dream and imagine for today, tomorrow and long into the future. Bradfield City Centre represents the future of city making, and the future of industry and employment in the Aerotropolis that is safe, innovative and sustainable.

Attracting innovation industries with centres of research and advanced manufacturing. The city will also foster partnerships between industry, universities, vocational education and training (VET) providers and STEM schools to align skills with employer needs and drive innovation.

The city will be a leader in sustainability including energy, water, waste and health throughout the public domain and buildings; embed smart technologies and infrastructure; and a highly walkable and transit-oriented city.

Key elements to consider include:

- Diverse employment and industry supporting collaboration, innovation, research, education
- Working with Traditional Custodians to listen and respond to Country
- Sustainability—water neutral, no waste to landfill, climate adaptation, land management, locally responsive
- Knowledge sharing to integrate First Nations knowledge in innovation and science
- Adaptive, flexible and multi-purpose spaces and buildings
- Building for ecologies
- Support and capacity building for First Nations communities and business enterprise
- A city that cares for physical, mental, cultural and emotional health.

3.4 Built form design principles

 <p>Green A Parkland City experience</p>	 <p>Connect Connected global and local</p>	 <p>Travel A global destination</p>	 <p>Dream Innovation and growth</p>
<p>Urban, green and blue</p> <p>Integrate green and blue within built form to extend the landscape into urban form and make landscape visible.</p>	<p>Start with Country first</p> <p>Adaptive and flexible forms that responds to the location, climate and environment. Designed for a global city but balances local needs and traditions.</p>	<p>Vibrant and diverse</p> <p>Building interfaces that promote social interaction to provide the life, activation and intensity critical to a high amenity and liveable city.</p>	<p>Innovative, flexible and adaptable</p> <p>Design for resilience and longevity to anticipate future change through flexible/adaptable spaces that can accommodate active uses into the future, requiring minimal internal redesign and structural change.</p>
<p>Human scaled</p> <p>Create human-scaled spaces and interfaces throughout the city.</p>	<p>Permeable and porous</p> <p>Prioritising pedestrian connections for an attractive, safe, active, highly walkable and permeable pedestrian network.</p>	<p>Always active</p> <p>A fine grained pedestrian scaled ground plane that enriches the public domain by providing a visually interesting street level experience.</p>	<p>Collaborative and engaged</p> <p>Hybrid uses in dense urban forms that accommodate diverse and complementary uses.</p>
<p>Healthy for all</p> <p>Create a healthy environment for people and the natural ecology.</p>	<p>Connected</p> <p>Protect and respond to key views and vistas to reinforce the connection to Country.</p>	<p>Identifiable</p> <p>Variety and a mix of scale, architectural design and character in the built form for a diverse and enriching urban environment.</p>	<p>Sustainable</p> <p>Provide a world-leading response to the challenges of climate change through high quality design controls and guidance.</p>

Note: For additional guidance on Built Form and Urban Design Principles, refer to the Bradfield City Centre Master Plan Urban Design Report



Artist's impression of Bradfield City Centre

4

Bradfield City Centre Master Plan

4.1 Master Plan

The Bradfield City Centre Master Plan establishes an urban structure to deliver the vision and Master Plan objectives outlined above.

It sets out an approach to deliver extensive open space and green space, provide a high level of connectivity and legibility, retain significant views and enhance Connections with Country.

The Master Plan includes:

- A proposed naturally integrated swimming area on Moore Gully
- A major events space on Thompsons Creek for concerts and community events
- A city-scaled Central Park co-located with the rail/bus interchange, to create a welcoming green, cool, active gathering space for all.

It also includes a Green Loop: a natural Aboriginal cultural trail weaving around the city that provides spaces to care for and connect with Country, tell stories and honour and express Aboriginal culture and knowledge. The goal is to entwine Country into the urbanity of the city to create a true Parkland City experience.



Additional performance outcome

1. To ensure that development in the Bradfield City Centre occurs in a coordinated manner consistent with the vision, objectives and master plan.



Additional control

2. Future development applications will need to be generally consistent with the Master Plan.

Legend

- | | |
|---|---|
| Master Plan Boundary | WSA Metro Station & Infrastructure |
| Open Space (regional and district) | Street Reserve |
| Open Space (ownership to be determined) | Green Loop (ownership to be determined) |
| Existing Native Vegetation (ENV) to be retained | Pedestrian Bridge (indicative location) |
| Mixed Use | Creek Centreline |
| Enterprise | Core Riparian Zone |
| Transport & Infrastructure (SP2) | Vegetated Buffer |
| Interim / Future Open Space | Stormwater Basins |

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



5

Design Excellence Strategy

5.1 Purpose of this strategy

The purpose of this Design Excellence Strategy is to establish the site-wide approach to achieving design excellence within Bradfield City Centre.

In particular, it provides for assessment of the design quality of the development thereby providing an alternative to the design excellence provisions set out in Part 4.5 of the Western Parkland City SEPP. Accordingly, Part 4.5 of the Western Parkland City SEPP would not apply to future development in the Bradfield City Centre.

The strategy achieves this purpose by identifying:

- The objectives of the strategy
- The location and extent of design excellence considerations in Bradfield City Centre
- Key considerations and requirements in demonstrating design excellence.

This Design Excellence Strategy is to be read in conjunction with the *Government Architect NSW Design Competitions Guidelines (September 2023)*.

Any amendments to the Bradfield City Centre-wide Design Excellence Strategy are to be prepared in consultation with GANSW, DPHI and the local authority and endorsed by GANSW.

5.2 Definitions

Landmark buildings: Buildings in important civic locations that have a significant role in shaping the identity of the area. The location of the building envelope can be flexible provided that the design of the building appropriately defines this highly visible site.

Gateway buildings: Buildings situated in highly visible and prominent locations that mark key arrival points to the city. The location of the building envelope can be flexible provided that the design of the building appropriately defines this highly visible site.

5.3 Objectives

The objectives of this Design Excellence Strategy are to:

1. Support the Bradfield City Centre Master Plan by setting out alternative site-specific design excellence provisions for the Bradfield City Centre to those provisions outlined in Part 4.5 of the Western Parkland City SEPP.
2. Ensure development in the Bradfield City Centre is consistent with the policy entitled Better Placed, published by the Government Architect NSW in May 2017,
3. Deliver the highest standard of architectural, urban and landscape design, having regard to:
 - the strategic intent of the Master Plan
 - site location and context
 - Connecting with Country and the Recognise Country Guidelines
 - Public domain
 - Built form, scale and massing
 - Sustainability
 - Creating a Green City
 - Amenity including solar access, comfort and protection from wind, tree retention, and acoustic amenity
4. Establish a coordinated approach to the implementation of competitive design and design review processes across the Bradfield City Centre that aligns with the Staging Plan.
5. Establish a design excellence culture throughout the development and delivery teams.
6. Identify the location and extent of design excellence considerations in the Bradfield City Centre.
7. Identify key considerations in demonstrating design excellence.

5.4 Consideration of design excellence

1. In considering whether development exhibits design excellence for the purposes of this strategy, the consent authority must have regard to the following matters—
 - a. whether the development responds to the physical and cultural connection of the local Aboriginal community to the land,
 - b. whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
 - c. whether the form and external appearance of the development will improve the quality and amenity of the public domain,
 - d. whether the development detrimentally impacts on view corridors.
2. The consent authority must also have regard to how the development addresses the following matters—
 - a. the suitability of the land for development,
 - b. the existing and proposed uses and use mix,
 - c. Aboriginal heritage,
 - d. the relationship of the development with other buildings (existing or proposed) on the same site or neighbouring sites in terms of separation, setbacks, amenity, and urban form,
 - e. the bulk, massing, and modulation of buildings,
 - f. street frontage heights,
 - g. environmental performance and amenity standards, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind, and reflectivity,
 - h. the achievement of the principles of ecologically sustainable development,
 - i. pedestrian, cycle, vehicular and service access, and circulation requirements, including the permeability of pedestrian networks,
 - j. the impact on, and proposed improvements to, the public domain,
 - k. the impact on special character areas,

- l. achieving appropriate interfaces at ground level between the building and the public domain,
- m. architectural diversity where the development is to consist of more than 2 buildings.
- n. The relationship of the development with a potential above ground railway corridor condition in terms of orientation, setbacks, amenity, urban form and view corridors.

5.5 Controls

1. Design Excellence should be achieved regardless of building tenure or use.
2. Ensure an integrated approach to landscape and building design to achieve high quality place-based outcomes.
3. Building design is to have regard to any patterns of scale, rhythm, materiality, and fenestration which emerge as the Bradfield City Centre develops to ensure a coherent sense of place.
4. Architectural design competitions are to be carried out in accordance with the *Government Architect's Design Excellence Competition Guidelines, 2023*.
5. Landscape design is to be undertaken concurrently with building design and a preliminary landscaping strategy is to be submitted as part of each design excellence process.
6. Updates to the adopted Design Excellence Strategy may be made, subject to endorsement by GANSW.

5.6 Design Excellence Framework

Design excellence is to be considered and delivered as outlined within this section.

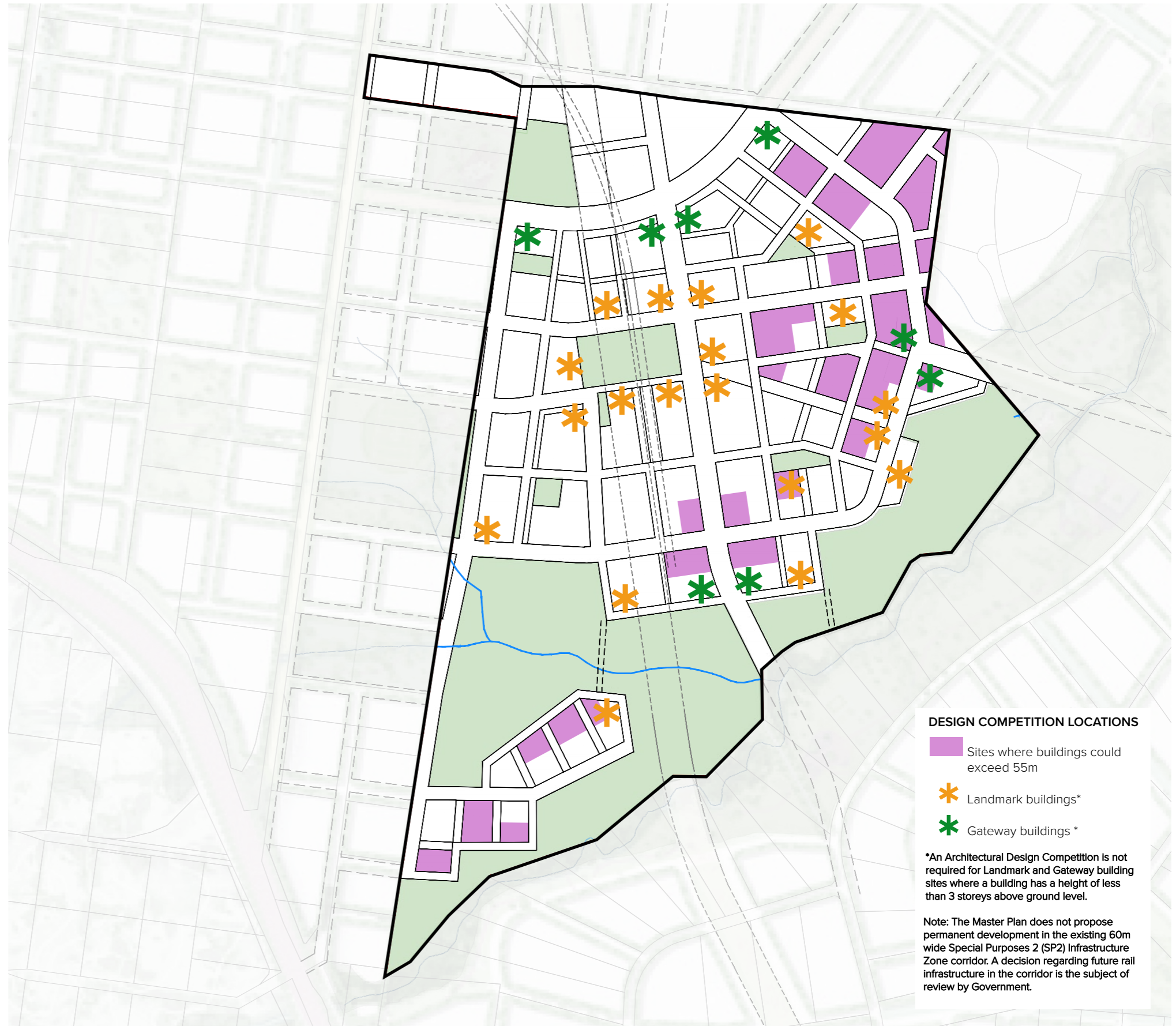
5.7 Competitive design excellence process

The following development is to be subject of an Architectural Design Competition:

- Buildings 55 metres in height or above,
- Buildings on Landmark buildings and Gateway buildings sites identified on the Design Competition Map, except where a building has a height of less than 3 storeys above ground level,
- Public buildings (e.g. community and cultural facilities), or
- Where a design competition is chosen by the applicant.

Architectural design competitions are to be carried out in accordance with the *Government Architect NSW Design Competition Guidelines (September 2023)*.

In selecting the winning design response, the jury must have regard to the matters listed under Section 5.4 Consideration of design excellence.



Note: Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.

5.8 State Design Review Panel

The following development is to be subject of a design review by the State Design Review Panel:

- Development less than 55 metres in height and an estimated cost of more than \$30 million, or
- Open space identified as 'Moore Gully/Thompsons Creek Regional Park' on the State Design Review Panel map.

In making its findings, the State Design Review Panel must have regard to the matters listed under Section 5.4 Consideration of design excellence.

The findings of the State Design Review Panel are to be taken into consideration by the consent authority in forming the opinion that the development exhibits design excellence in accordance with this strategy.

5.9 Local Design Review Panel

The following development is to be subject of a design review by the Liverpool Design Excellence Panel:

Development less than 55 metres in height and having an estimated development cost of \$30 million or less with either:

- A site area of at least 10,000sqm,
- A height of 3 or more storeys above ground level: or
- Open space not otherwise subject to a design excellence process.

The findings of the Local Design Excellence Panel are to be taken into consideration by the consent authority in forming the opinion that the development exhibits design excellence in accordance with this strategy.



STATE DESIGN REVIEW PANEL

Moore Gully/ Thompsons Creek Regional Park

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

6

Bradfield City Centre Complying Development Code

6.1 Bradfield City Centre Complying Development

Section 4.43 of the Western Parkland City SEPP enables development that is permitted with development consent to be carried out as complying development if the development:

1. is specified in a master plan as complying development, and
2. is consistent with the master plan.

This section of the Bradfield City Centre Master Plan specifies complying development provisions for Bradfield City Centre.

This is in addition to any complying development provisions of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* which apply to generally to the Western Sydney Aerotropolis as set out in Part 4.6 of the Western Parkland City SEPP.

6.2 General requirements for complying development under this Master Plan

1. To be complying development under this Master Plan, the development must—
 - a. be consistent with this Master Plan
 - b. not be development in relation to which the consent authority must consult with the relevant Commonwealth body under Part 4.3 of the Western Parkland City SEPP before granting development consent,
 - c. not be development for which development consent cannot be granted except with the concurrence of a person other than the consent authority
 - d. not be exempt development under Chapter 4, of the Western Parkland City SEPP,
 - e. be permissible with consent as per the Land Use Table in Part 4.2 of the Western Parkland City SEPP,
 - f. meet the relevant provisions of the Building Code of Australia,
 - g. not, if it relates to an existing building, cause the building to contravene the Building Code of Australia
 - h. not require an environment protection licence within the meaning of the *Protection of the Environment Operations Act 1997*,
 - i. not be carried out on land that is shown as “existing native vegetation” on the High Biodiversity Value Areas Map which forms part of Western Parkland City SEPP,

- j. not be carried out on land on which a heritage item or Aboriginal object is located or that is within a heritage conservation area or Aboriginal place of heritage significance,
- k. is not for the purpose of remediation work within the meaning of State Environmental Planning Policy (Resilience and Hazards) 2021,
- l. not be integrated development, as defined in section 4.46 of the *EP&A Act* which requires concurrence from the NSW Rural Fire Service,
- m. not be Special Fire Protection Purpose development as defined by the *Rural Fires Act 1997*, Rural Fires Regulation 2022 or Planning for Bush Fire Protection,
- n. not be carried out on land in bush fire attack level-40 (BAL-40) or the flame zone (BAL-FZ), and
- o. not be designated development as defined in section 4.10 of the *EP&A Act*.

- b. to a covenant that is specifically required by another environmental planning instrument, or
- c. to a covenant imposed by an owner or former owner of the land concerned, other than a covenant that has been required by a council to be imposed, or
- d. to any relevant instrument within the meaning of section 13.4 of the *Crown Land Management Act 2016*, or
- e. to any conservation agreement within the meaning of the *National Parks and Wildlife Act 1974*, or
- f. to any Trust agreement within the meaning of the *Nature Conservation Trust Act 2001*, or
- g. to any property vegetation plan approved under the *Native Vegetation Act 2003*, or
- h. to any biobanking agreement within the meaning of Part 7A of the *Threatened Species Conservation Act 1995*, or
- i. to any planning agreement within the meaning of Division 7.1 of the *EP&A Act*.

3. This clause does not affect the rights or interests of any public authority under any registered instrument.

6.3 Suspension of covenants, agreements and instruments

1. For the purpose of enabling development on land in any zone to be carried out in accordance with this Master Plan, or with a consent granted under the *EP&A Act*, any agreement, covenant, or other similar instrument that restricts the carrying out of that development does not apply to the extent necessary to serve that purpose.
2. This clause does not apply—
 - a. to a covenant imposed by a council, or that a council requires to be imposed, requiring compliance with a development standard that is—
 - i. consistent with the development standards specified for the development concerned under this Master Plan, or
 - ii. not dealt with by the development standards specified for the development concerned under this Master Plan, or

6.4 Development that is complying development under this Master Plan

Development involving the change of use of an existing approved building for a specified purpose on land in the Mixed Use or Enterprise Zone in Bradfield City Centre is development specified as complying development under this Master Plan.

The new use must not result in a change of building classification under the Building Code of Australia, unless the change of use is from a class 5 building to a class 6 building, or from a class 6 building to a class 5 building, and the building meets all the relevant provisions of that code for the new use.

6.5 Development that is not complying development under this Master Plan

Any erection or alteration of, or an addition to a building.

6.6 Meaning of “specified purpose”

1. For the purposes of complying development under this Master Plan, each of the following is a **specified purpose** –
 - a. amusement centres,
 - b. commercial premises,
 - c. community facilities,
 - d. entertainment facilities,
 - e. function centres,
 - f. health consulting rooms,
 - g. light industries,
 - h. information and education facilities,
 - i. local distribution premises,
 - j. medical centres,
 - k. recreational facilities (indoor),
 - l. storage premises,
 - m. veterinary hospitals,
 - n. warehouses or distribution centres,
2. However, each of the following is not a specified purpose for the purpose of complying development under this Master Plan—
 - a. data centres,
 - b. funeral homes,
 - c. markets,
 - d. potentially hazardous industries, and potentially offensive industries, within the meaning of State Environmental Planning Policy (Resilience and Hazards) 2021,
 - e. pubs,
 - f. registered clubs,
 - g. restricted premises,
 - h. retail premises that sell firearms within the meaning of the Firearms Act 1996,
 - i. roadside stalls and
 - j. sex services premises

6.7 Aerotropolis Certificate

An application for a complying development certificate for development within the Bradfield City Centre specified as complying development under this Master Plan must be accompanied by a current Aerotropolis Certificate issued under Chapter 4 of the Western Parkland City SEPP.

6.8 Complying Development Certificates

A complying development certificate for development specified as complying development under this Master Plan must be issued subject to the conditions in **Schedule 1**.

6.9 Complying Development Standards for Change of Use in Mixed Use zone and Enterprise Zones in the Bradfield City Centre under this Master Plan

Development standards - general

1. The development must not be carried out at premises that are a manufactured home, moveable dwelling or temporary structure.

Development Standards for food and drink premises

1. Food and drink premises must—
 - a. have a maximum capacity of no more than 100 patrons, and
 - b. display a sign indicating the maximum capacity.

Maximum gross floor area for specified purposes

1. The maximum gross floor area for specified purposes is the maximum gross floor area that applies under the most recent development consent that applies to the tenancy.

Car parking and access

1. car parking must be provided—
 - a. in accordance with any relevant requirements contained in an environmental planning instrument or development control plan applying to the land, or

- b. if there are no relevant requirements referred to in paragraph (a) – in accordance with the document entitled Guide to Traffic Generating Developments, Version 2.2, published by the Roads and Traffic Authority in October 2002.

Schedule 1 -

Conditions applying to complying development certificates for complying development under this Master Plan.

Note 1 – Complying development under this Master Plan must comply with the requirements of the EP&A Act, the *EP&A Regulation 2000* and the conditions listed in this Schedule.

Note 2 – Division 2A of Part 7 of the *EP&A Regulation 2000* specifies conditions to which certain complying development certificates are subject.

Note 3 – In addition to the requirements specified for complying development under this Master Plan, adjoining owners' property rights, applicable common law and other legislative requirements for approvals, licences, permits and authorities still apply.

Note 4 – If the development is in the proximity of infrastructure (including water, stormwater or sewer mains, electricity power lines and telecommunications facilities), the relevant infrastructure authority should be contacted before commencing the development.

1. Mechanical ventilation systems

If the work includes a mechanical ventilation system that is a **regulated system** within the meaning of the *Public Health Act 2010*, the system must be notified as required by the *Public Health Regulation 2012*, before an occupation certificate (whether interim or final) for the work is issued.

2. Food businesses

If the work relates to a **food business** within the meaning of the *Food Act 2003*, the food business must be notified as required by that Act, or licensed as required by the *Food Regulation 2010*, before an occupation certificate (whether interim or final) for the work is issued.

3. Premises where skin penetration procedures are carried out

If the work relates to premises at which a skin penetration procedure, within the meaning of the *Public Health Act 2010*, will be carried out, the premises must be notified as required by Part 4 of the *Public Health Regulation 2012* before an occupation certificate (whether interim or final) for the work is issued.

Operational requirements

4. Hours of operation

- a. If there are existing conditions on a development consent applying to hours of operation, the development must not be operated outside the hours specified in those conditions.
- b. If there are no existing conditions on a development consent applying to hours of operation, the development must not be operated outside the following hours –
 - i. if the development involves a new use as specialised retail premises or other commercial premises – 7.00 am to 10.00 pm Monday to Saturday and 7.00 am to 8.00 pm on a Sunday or a public holiday,
 - ii. if the development involves a new use as something other than a specialised retail premises or other commercial premises and adjoins or is opposite a residential lot within a residential zone or Zone RU5 Village – 7.00 am to 7.00 pm Monday to Saturday and no operation on a Sunday or a public holiday,
 - iii. in any other case not referred to in paragraph (a) or (b) – 7.00 am to 7.00 pm Monday to Saturday and 9.00 am to 6.00 pm on a Sunday or a public holiday.

5. Noise

- a. The development must comply with the Noise Policy that applies to the Site.

6. Lighting

- a. All new external lighting must –

- i. comply with AS/NZS 4282:2019, Control of the obtrusive effects of outdoor lighting, and
 - ii. be mounted, screened, and directed in a way that it does not create a nuisance or light spill on to buildings on adjoining lots or public places.
- b. Lighting at vehicle access points to the development must be provided in accordance with the following standards –
 - i. AS/NZS 1158.0:2005, Lighting for roads and public spaces, Part 0: Introduction,
 - ii. AS/NZS 1158.1.1:2005, Lighting for roads and public spaces, Part 1.1: Vehicular traffic (Category V) lighting – Performance and design requirements,
 - iii. AS/NZS 1158.1.2:2010, Lighting for roads and public spaces, Part 1.2: Vehicular traffic (Category V) lighting – Guide to design, installation, operation and maintenance,
 - iv. AS/NZS 1158.2:2020, Lighting for roads and public spaces, Part 2: Computer procedures for the calculation of light technical parameters for Category V and Category P lighting,
 - v. AS/NZS 1158.3.1:2020, Lighting for roads and public spaces, Part 3.1: Pedestrian area (Category P) lighting – Performance and design requirements,
 - vi. AS/NZS 1158.4:2015, Lighting for roads and public spaces, Part 4: Lighting of pedestrian crossings,
 - vii. AS/NZS 1158.5:2014, Lighting for roads and public spaces, Part 5: Tunnels and underpasses.

7. Use of driveways and parking areas

- a. All driveways and parking areas must be unobstructed at all times.
- b. Except as otherwise permitted by an existing condition of the most recent development consent (other than a complying development certificate) that applies to the premises, driveways and car spaces –

- i. must not be used for the manufacture, storage or display of goods, materials or any other equipment, and
- ii. must be used solely for vehicular access and for the parking of vehicles associated with the use of the premises.

8. Loading and unloading of goods or materials

- a. Loading and unloading goods or materials must not be carried out on a public road.

9. Landscaped area (planting and maintenance)

- a. Any tree or shrub that fails to establish within 2 years of the initial planting date must be replaced with the same species of tree or shrub.
- b. All landscaped areas on the site must be maintained on an on-going basis.

Conditions applying to entertainment venues

10. Application of prescribed conditions of development consent

- a. The conditions of a development consent for the use of a building as an entertainment venue prescribed for the purposes of the *EP&A Act*, s 4.17(11) are conditions of a complying development certificate for the use of a building as an entertainment venue.

Note – See the *EP&A Regulation 2021*, section 72.

7

Land use and built form

7.1 Land use character

The majority of developable area in Bradfield City Centre is zoned Mixed Use, allowing for a wide range of commercial, civic and residential uses that make up a thriving city centre.

Within the mixed use zone the Master Plan identifies different character areas that have emerged in response to the amenity, attraction, access and value of each area and provide guidance on land use and development decisions.

The northern portion of the site north of Metro Link Boulevard is zoned Enterprise which allows for commercial and light industrial uses, but not residential. This is part of a larger Enterprise zone around the Aerotropolis intended to safeguard the strategic employment and industry development aspirations for the region.



Additional performance outcomes

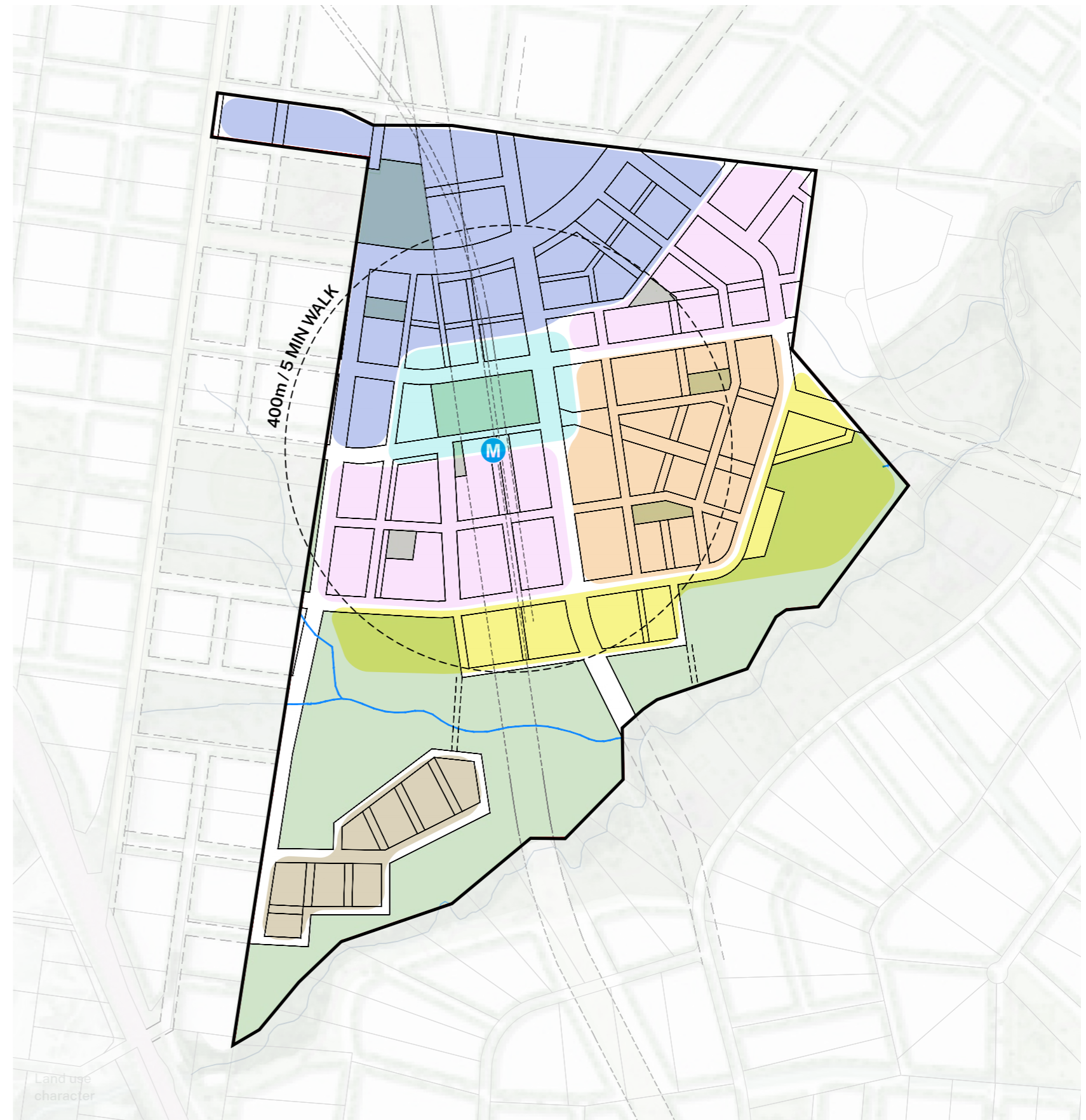
1. To establish distinct character areas across the Bradfield City Centre to accommodate a range of non-residential and residential uses which respond to the amenity, attraction, accessibility and value of each area.



Additional control

1. Land use mix of development within each character area is to be consistent with that identified in the land use character diagram.

- Innovation, Research and Education Focus**
 Characterised by commercial, office, research, education, advanced industries defence and aerospace uses that support innovation sectors with high value employment.
- Civic Focus**
 Characterised by a mix of community, cultural, civic and commercial uses with highly active ground floors framing Central Park and the central Metro-transit interchange.
- Mixed Use**
 Characterised by a balanced mix of retail, commercial, office, recreational, community, high-tech industry and residential uses, with active uses at street level.
- Mixed Use Retail Focus**
 Characterised by a mix of retail, commercial, office, recreational, community and residential uses, with a higher concentration of retail floorspace to create a district level shopping area.
- Mixed Use Residential Focus**
 Characterised by predominantly residential uses with some commercial, retail and community uses to support the residential community.
- Cultural, Recreation, Entertainment & Tourism Focus**
 Characterised by a focus on cultural and civic uses, leisure and entertainment, plus hotel and residential with active interfaces at street level, outdoor dining and street trading for day and night activation along the promenade and the two key activity nodes (event space and swimming pool).



Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.

7.2 Height of buildings

Under the Aerotropolis Precinct Plan a maximum height of buildings of 62m is established across the Bradfield City Centre. The Master Plan provides further guidance on the appropriate height of buildings across the Bradfield City Centre replacing the height controls in the Aerotropolis Precinct Plan.



Additional performance outcome

1. To locate building height to ensure adequate solar access to the public domain and provide a diversity of building heights across the Bradfield City Centre.



Additional control

1. Buildings are not to exceed the building heights on the height of buildings plan.

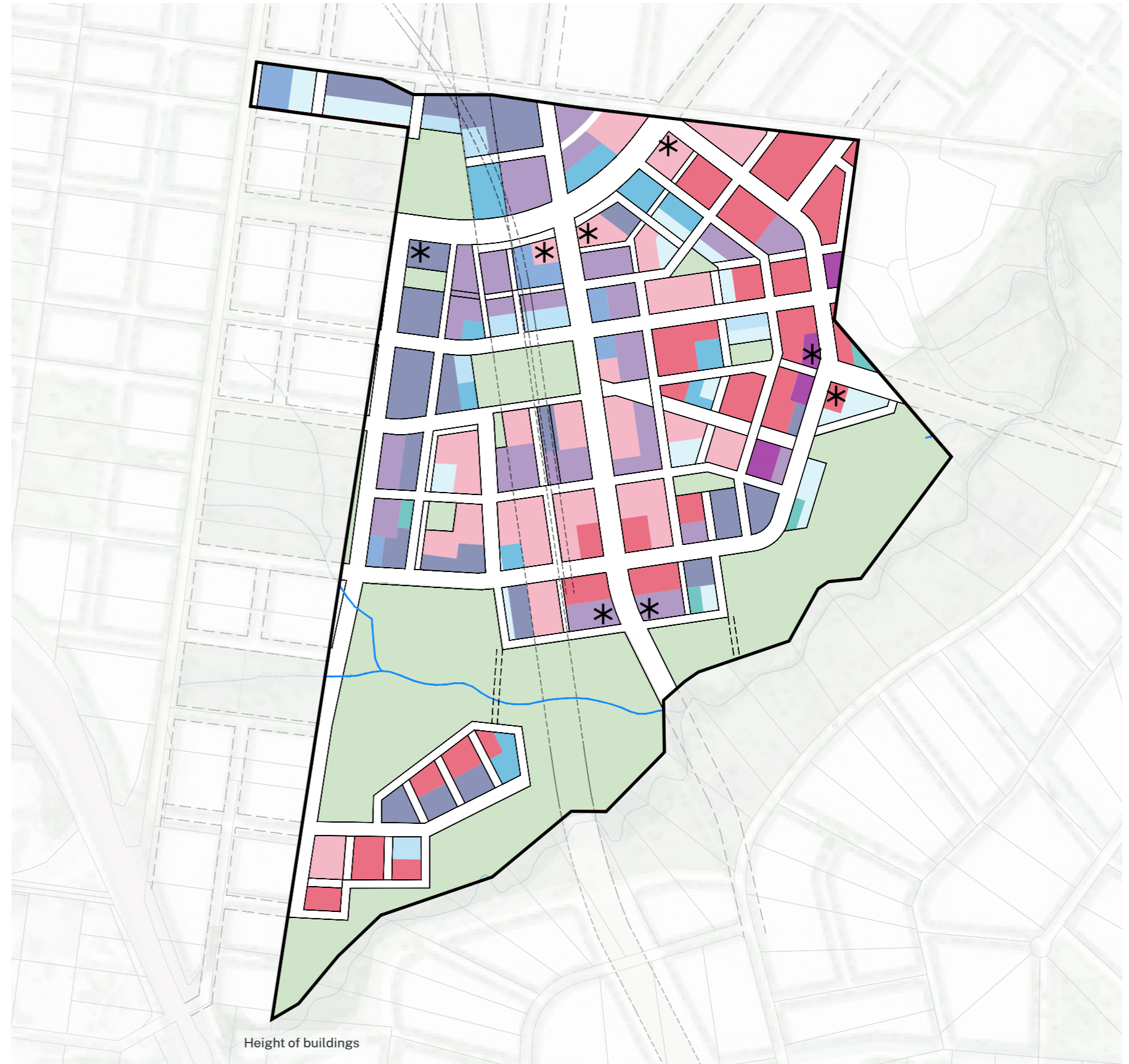
Maximum building height (including plant)

- 60m
- 55m
- 51m
- 47m
- 40m
- 36m
- 32m
- 25m
- 21m
- 17m

* Gateway building

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



7.3 Floor space distribution

Under the Aerotropolis Precinct Plan a maximum floor space ratio (FSR) of 2.5:1, 3:1 and 3.5:1 applies to the mixed use zone within the Bradfield City Centre.

The Master Plan provides for the reallocation of gross floor area (GFA) permissible under the Aerotropolis Precinct Plan FSR controls to future development blocks.

This is necessary to ensure GFA is retained when non-developable land (i.e. roads and open space) are subdivided and dedicated and no longer form part of the site area for the purposes of calculating FSR.

The total floor space directly corresponds with the maximum GFA resulting from the total mapped FSR in the Aerotropolis Precinct Plan.



Additional performance outcome

1. To ensure an appropriate distribution of permissible floor space which aligns with the scale of built form envisaged under the Master Plan.



Additional benchmark solutions

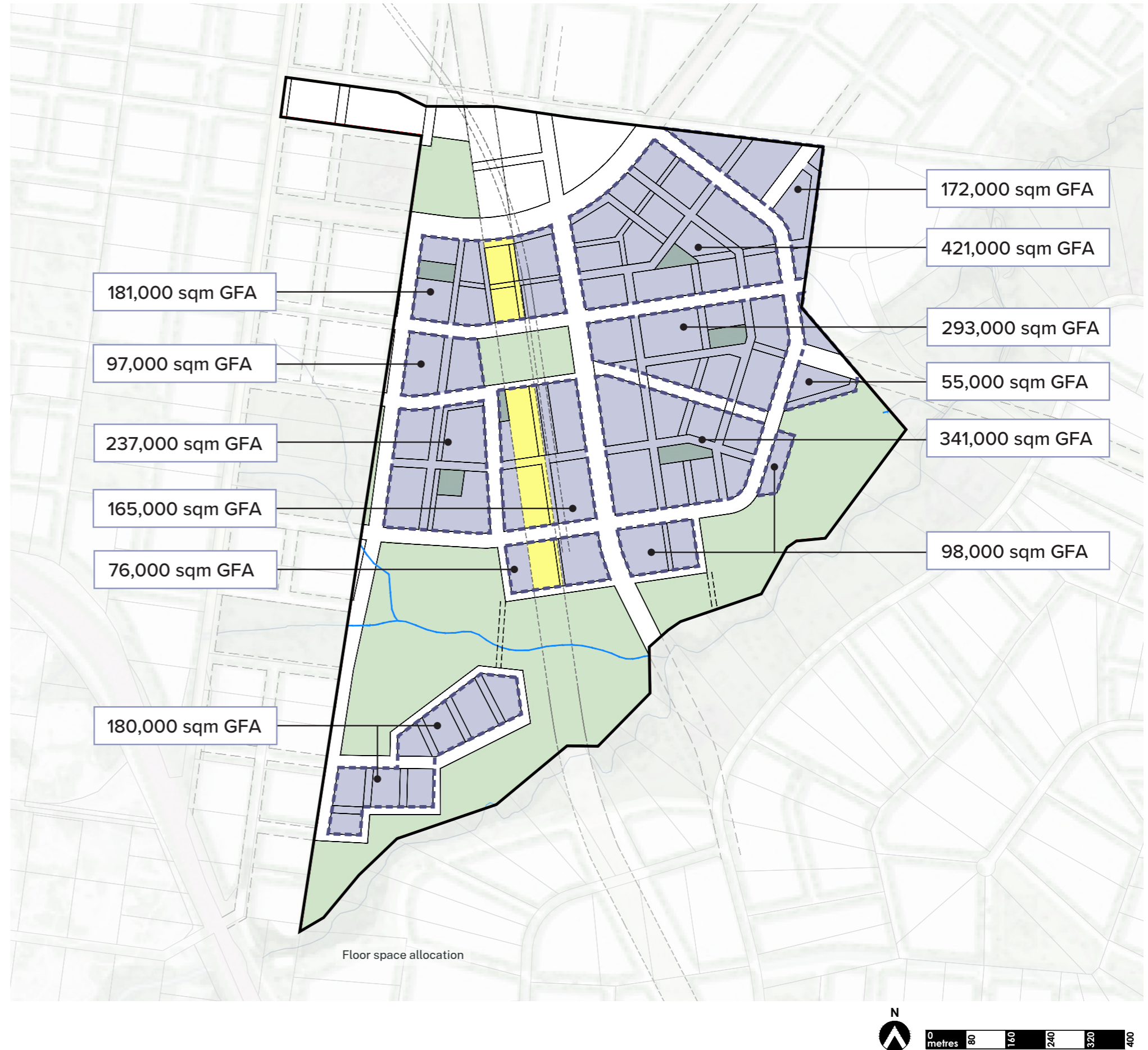
1. Development within each development lot is not to exceed the floor space allocation identified in the floor space allocation diagram
2. Where a development application applies to only part of a development site shown on the floor space allocation diagram, the development application is to detail how floor space will be allocated across the development site and demonstrate that the cumulative floor space allocation will not be exceeded.

Maximum permissible floorspace

- Mixed Use Zone: 2,316,000 sqm GFA
 - Transport Infrastructure Corridor: Subject to future planning
- Total: 2,316,000 sqm GFA**

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



7.4 Street setbacks

This section sets out alternative benchmark solutions to those set out in the Aerotropolis DCP in Sections 3.3.2(P01), 3.3.3(P01), 4.2.3(P01), 5.2.3(P01) for setbacks to streets, and park interfaces.

These setbacks respond to the street hierarchy and urban context of the Master Plan and make allowances for the provision of tree canopy, deep soil and landscape zones.

Other setback provisions in Sections 3.3.2(P01), 3.3.3(P01), 4.2.3(P01), 5.2.3(P01) of the Aerotropolis DCP continue to apply.

✓ Alternative benchmark solution

Building setbacks

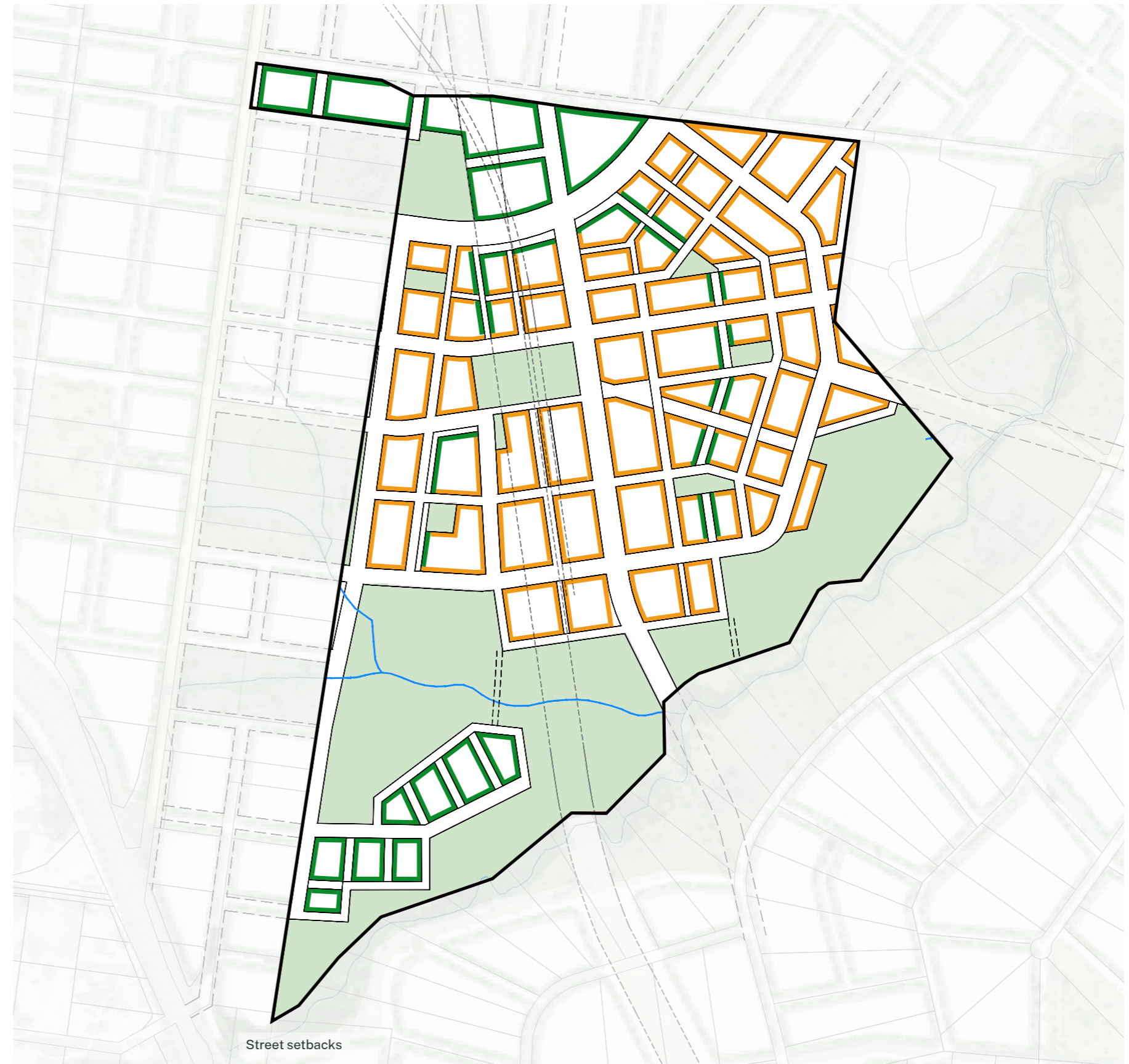
1. Setbacks to streets and park interfaces within Bradfield City Centre are to be consistent with those shown on the Street setbacks diagram.

Setbacks

- 0m setbacks required (3m setback permitted to accommodate outdoor dining and 3m setback required for any ground floor residential)
- 3m setbacks required to green loop, residential and enterprise areas

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



7.5 Activation

This section sets out additional provisions relating to activation of the Bradfield City Centre.

Active frontages include: street frontages where there is an active visual engagement between those in the street and those on the ground floors of buildings. Frequent building entries that face and open towards the street, transparent street frontages, quality materials and refined details, and mixed land uses will make streets more diverse and attractive for pedestrians and increase the perception of safety and encourage higher levels of pedestrian activity.



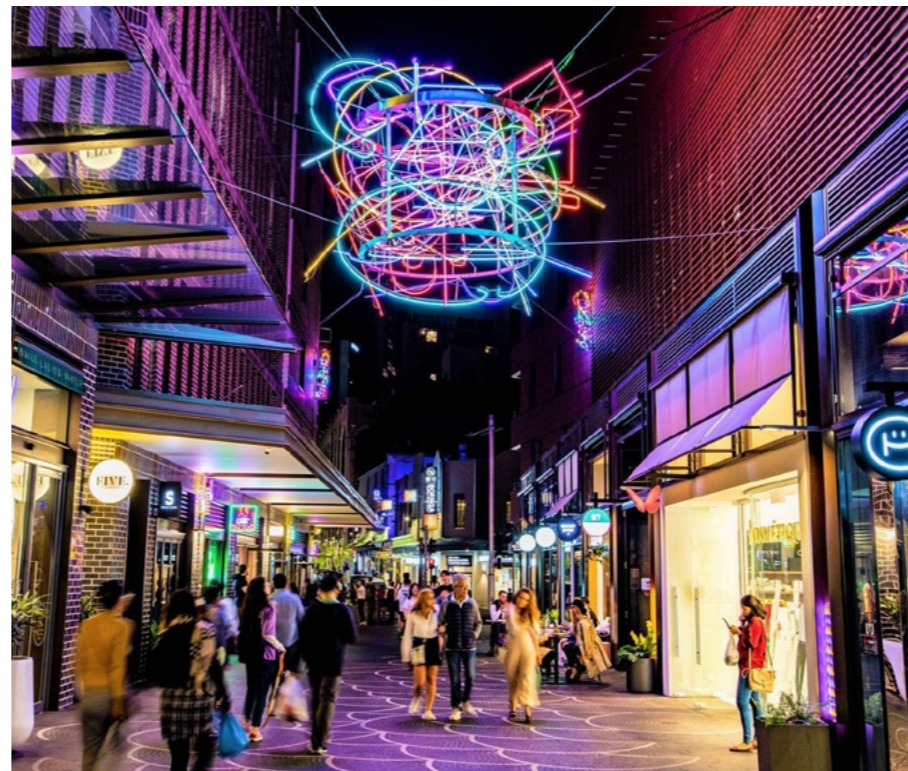
Additional performance outcomes

1. To achieve a fine grain and vibrant city centre.
2. To deliver a suitable level of ground floor activation across the Bradfield City Centre which corresponds to accessibility and other locational attributes.



Additional benchmark solutions

1. Ground level active frontages are to:
 - be consistent with the street activation figure overleaf
 - include 50% greenery or public art for blank walls
 - include 100% non reflective surfaces for blank walls
2. Provide fine grain at street level by accommodating a range of sizes of retail/commercial tenancies.
3. Where a development comprises multiple buildings, provide a diversity of forms, typologies and architectural language, within a cohesive design framework.
4. Retail arcades are to:
 - Adopt vertical proportions with a height greater than the width that is sufficient for both movement and stationary activity. Minimum two storeys in height.
 - Incorporate active frontages at ground and upper levels to provide a sense of activity, vibrancy, and safety.
 - Provide legible entries with direct line of site
 - Incorporate greenery for amenity
 - Incorporate high quality exterior grade materials and finishes to all surfaces.
5. Where development is staged, encourage temporary active uses on vacant sites that front streets and public domain such as retail, food and beverage, markets, maker spaces, affordable spaces, and recreational uses.

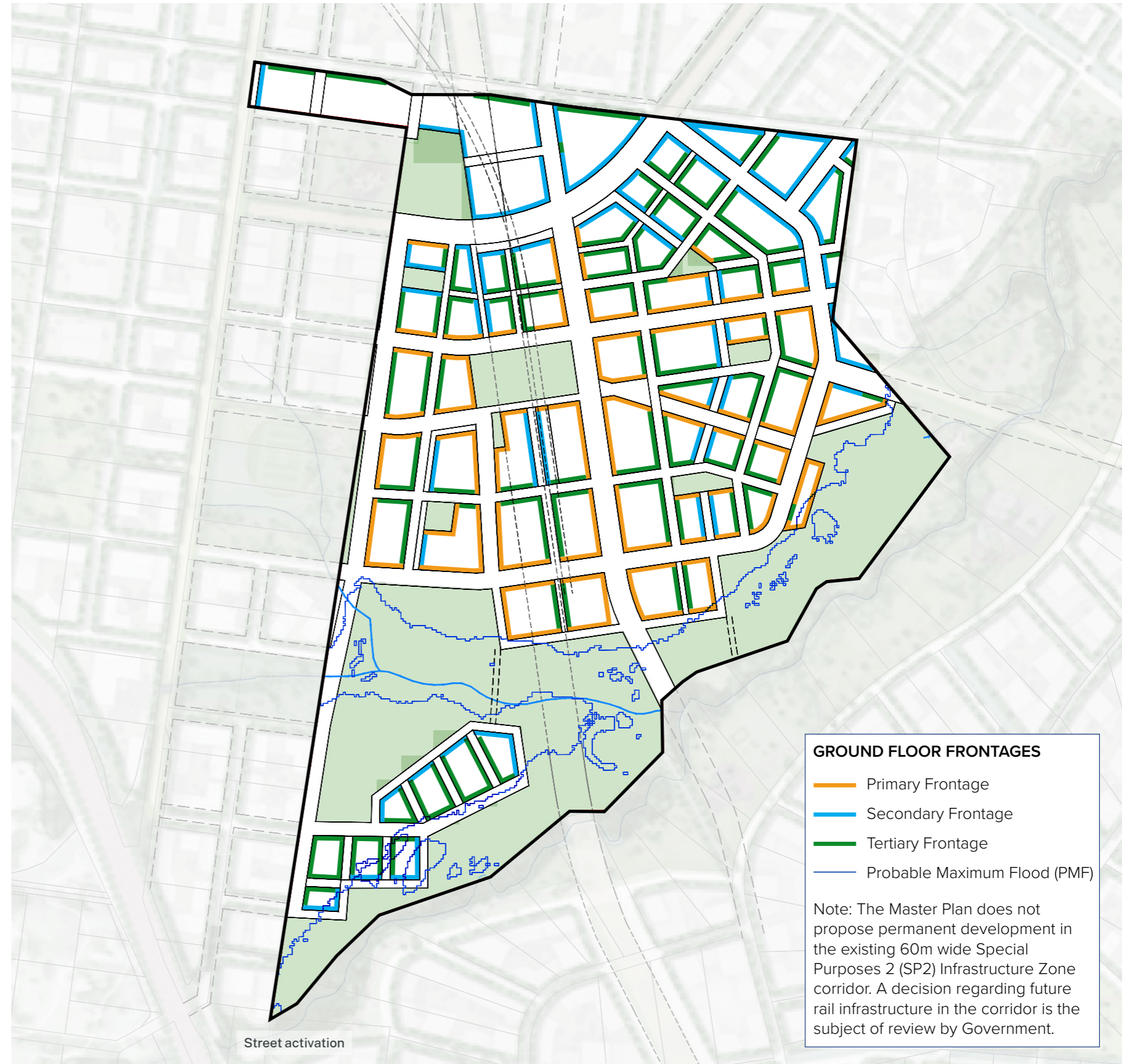


Ground Floor frontages

- Primary Frontage**
 - Minimum 90% Ground level active frontages.
 - No ground floor residential permitted.
 - No vehicle accesses permitted.
 - No blank walls and/or services and utilities.
- Secondary Frontage**
 - Minimum 60% active frontages.
 - Active frontage can include ground floor residential as long as it is appropriately activated. For example maisonette or terrace dwellings on the ground floors of residential flat buildings with individual street level entrance.
 - No ground floor residential permitted in areas impacted by the PMF.
 - No vehicle accesses permitted.
 - Blank walls and/or services and utilities only permitted if essential, and limited to maximum 15% of the frontage and maximum 6m continuous length.
- Tertiary Frontage**
 - No ground floor residential permitted in areas impacted by the PMF.
 - Vehicle accesses, services, utilities and/ or blank walls limited to a maximum 25% of the frontage and maximum 10m continuous length.

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



GROUND FLOOR FRONTAGES

- Primary Frontage
- Secondary Frontage
- Tertiary Frontage
- Probable Maximum Flood (PMF)

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.



7.6 Street wall heights

This section sets out additional provisions relating to street wall height and upper level setbacks.



Additional performance outcomes


1. Define the key streets and open spaces with an appropriate height and consistent built edge relative to their size and hierarchy and the uses and intensity envisaged for the built form
2. Provide a human scale interface to the public domain
3. Achieve adequate solar access to public spaces
4. Setback upper levels to define the street wall from the tower element above.





Additional benchmark solutions


1. Street wall heights are not to exceed the maximum number of storeys shown on the street wall height diagram.
2. upper levels are to be setback 4m behind the street wall, except for Landmark and Gateway buildings as shown on the height of buildings diagram which do not require an upper level setback

Street wall height

 2-4 storeys street wall to green loop and local parks

 4 storey street wall to district and regional parks

 4-6 storey street wall to main streets

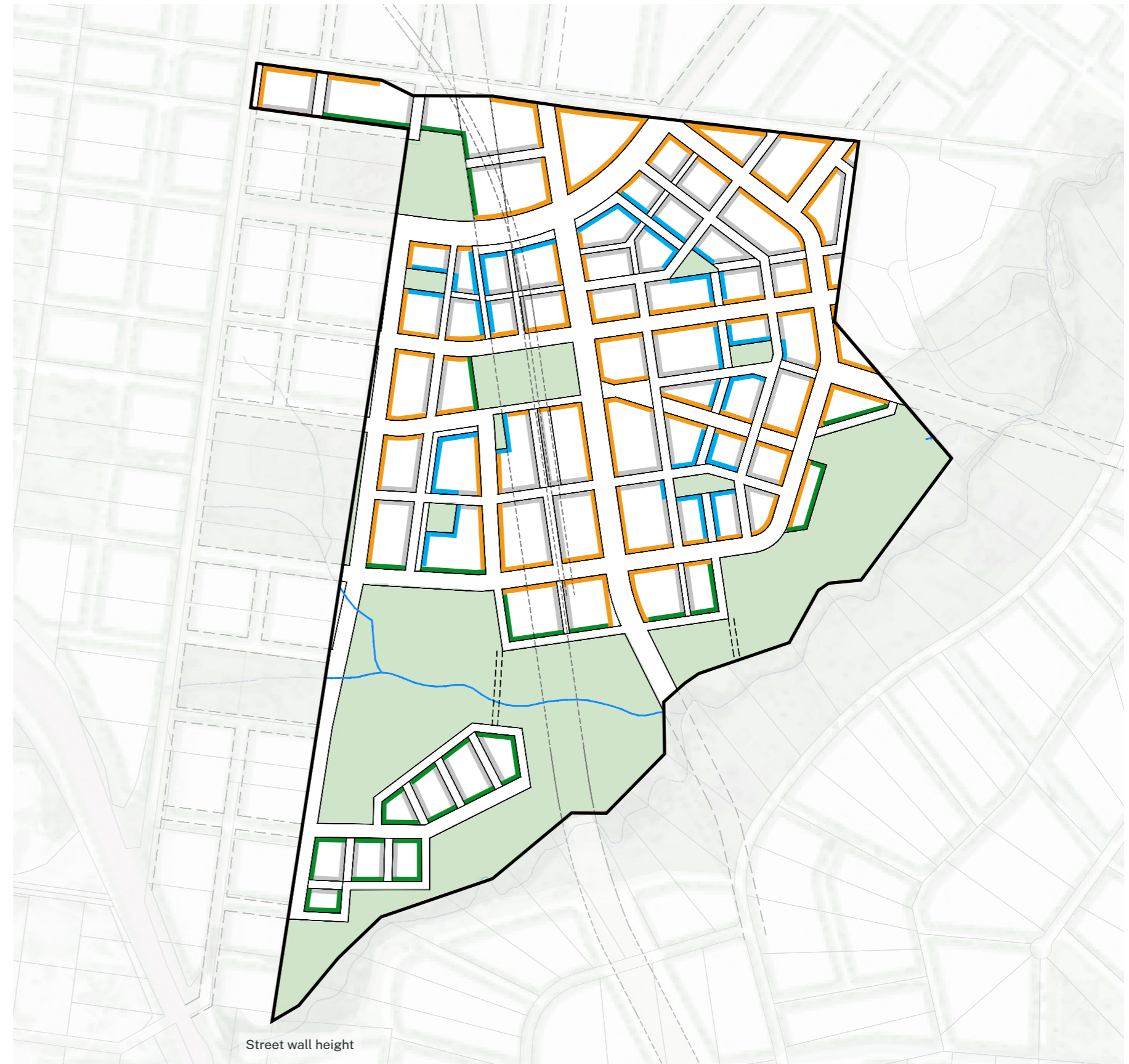
 Variable street wall height permitted to local streets and lanes

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Landmark buildings: Buildings in important civic locations that have a significant role in shaping the identity of the area. The location of the building envelope can be flexible provided that the design of the building appropriately defines this highly visible site. The optimal building envelope is to be explored through the design excellence process.

Gateways buildings: Buildings situated in highly visible and prominent locations that mark key arrival points to the city. As part of the design excellence process additional height may be justified (subject to compliance with PANS OPS and being cognisant of impacts on solar access to public spaces). The location of the building envelope can be flexible provided that the design of the building appropriately defines this highly visible site. The optimal building envelope is to be explored through the design excellence process.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



7.7 Building footprints

This section sets out alternative benchmark solutions to those set out in the Aerotropolis DCP in Sections 4.2.2(PO2) and 5.2.2(PO2) for maximum gross tower footprints.

Other provisions in Sections 4.2.2(PO2) and 5.2.2(PO2) of the Aerotropolis DCP continue to apply.

✓ Alternative benchmark solution

1. The maximum gross footprint for a commercial tower above five storeys is 1,500sqm
2. The maximum gross footprint for a residential tower above five storeys in height is 750sqm



7.8 Solar access

This section sets out alternative benchmark solutions to those set out in the Aerotropis DCP in Sections 4.2.3(PO2) for solar access to public spaces.

✓ Alternative benchmark solution

1. Development applications are to demonstrate that solar access to public open space can be achieved as detailed in the table and diagram below.

Solar access to open space

- District and Regional Parks:
A minimum 3 hours direct sunlight between 9am and 3pm on 21 June is to be provided to a minimum 70% of open space.
- Local Parks:
A minimum 3 hours direct sunlight between 9am and 3pm in 21 June is to be provided to a moving 50% of open space.

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



7.9 Building materiality

This section sets out additional provisions relating to building materiality in the Bradfield City Centre.



Additional performance outcomes

1. Provide for a high level of visual interest
2. Respond to the public domain and landscape context
3. Deliver a high level of environmental sustainability
4. Minimise glare and urban heat generation.



Additional benchmark solutions

1. Materials should be natural, tactile and visually interesting at the lower levels near the public interface to reinforce a human scale.
2. Materials should be durable, robust and low maintenance in the higher parts of a building.
3. Materials at the ground level interface to provide visual connection between the public and private domain.
4. Blank walls that are visible from the public realm should be designed as an integrated component of the building composition. Blank walls must be non-reflective and/or textured.
5. Provide contextually responsive building exteriors that contribute to the quality of the public realm through its architectural expression, materials and finishes.
6. Facades should avoid materials that reflect direct solar radiation into the public domain and that may cause glare, radiant discomfort or urban heat island impacts.
7. Facades should avoid materials that cause unacceptable glare to the public realm.
8. 20% maximum reflectivity of materials to reduce reflective heat back into public or communal spaces
9. Glazing that is treated to increase solar reflectivity shall be shaded to ensure no increase in reflected heat.
10. Material and finishes selection for roofs and hard scape zones to be cool and light coloured.



CLT structure. King Street, Brisbane.



Material selection to reduce reflectivity to the public domain International House, Barangaroo

7.10 Affordable Housing

This section sets out an additional provision relating to affordable housing in Bradfield City Centre.



Additional performance outcome

1. To promote and ensure the adequate provision of affordable housing in Bradfield City Centre at a level of no less than 10%.



Additional control

1. Residential development shall include affordable housing at a rate no less than 10% or in line with current NSW Government policy, whichever is the greater.



Nightingale ParkLife by Austin Maynard Architects provides a range of studios, townhouses and 2-3 bedroom apartments, 20% affordable housing, 9+ stars NatHERS rating, carbon neutral and shared rooftop with veggie patches, communal laundry and ampitheatre.



General controls

8.1 Canopy cover and deep soil

This section sets out alternative benchmark solutions to those set out in the Aerotropolis DCP in Sections 2.4.1(P01) for canopy cover.

Other controls in Section 2.4.1(P01) of the Aerotropolis DCP continue to apply.

The Master Plan for Bradfield City Centre provides a different composition of lots, streets and open space to the urban typologies in the Aerotropolis DCP.

Separate canopy cover requirements have been established for individual lots and each street type and open space. This approach is able to achieve an average canopy cover of 42% across the Bradfield City Centre which exceeds the 40% target under the Aerotropolis Precinct Plan, with each open space able to achieve a canopy cover of at least 45% consistent with the Aerotropolis DCP.

Alternative benchmark solution

- All lots are to achieve canopy cover of at least 15% of the site area.
- All lots are to achieve deep soil of at least 10% of the site area.
- Canopy cover within streets and open space is to be generally consistent with the targets detailed in Section 9 and 10 respectively.

Area	Perviousness	Tree canopy cover
Development lots		
Development lot	16%	15%
Street network		
Metro link boulevard	30%	36%
Sub-arterial	45%	54%
Transit boulevard (bus zone)	35%	42%
Transit boulevard (outside bus zone)	29%	77%
Commercial high street type A	19%	86%
Commercial high street type B	23%	76%
City street	16%	71%
City walk west	23%	57%
City walk east	30%	23%
City lane-shared zone	44%	52%
City lane-pedestrian only	44%	52%
Parklands promenade street	7%	38%
Green loop	53%	50%
Public domain and public open space		
Central Park	40%	45%
Ridge Park	89%	44%
Local parks	48%	60%
The parklands	93%	61%
City parklands west	33%	46%
City parklands east	83%	51%

8.2 Water sensitive urban design

Watercourses

This section sets out alternative benchmark solutions to those set out in the Aerotropolis DCP in Section 2.3.1(P01)(1) relating to Strahler Order 1 watercourses, stormwater management measures and drainage.

Other controls in Section 2.3.1(P01)(1) of the Aerotropolis DCP continue to apply.

Alternative benchmark solution

Within Bradfield City Centre all Strahler Order 1 watercourses can be re-constructed and /or piped, providing stormwater modelling demonstrates the pipe and street network is capable of accommodating flows up to and including the 100 year AEP storm event.



Perviousness

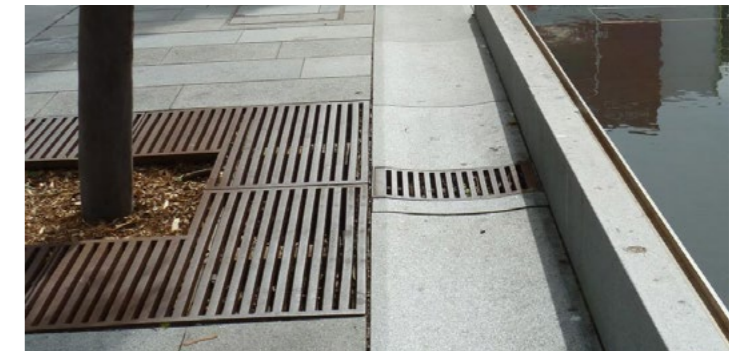
This section sets out alternative benchmark solutions to those set out in the Aerotropolis DCP, Section 2.3.2(P08) relating to perviousness.

Other controls in Section 2.3.2(P08) of the Aerotropolis DCP continue to apply.

The Master Plan for Bradfield City Centre provides a different composition of lots, streets and open space to the urban typologies in the Aerotropolis DCP. Therefore, while the overall perviousness target remains unchanged, the perviousness for development lots is reduced as set out in the controls below. This approach is able to achieve a perviousness of 40% across the Bradfield City Centre.

Alternative benchmark solution

- All lots are to achieve a perviousness of at least 16% of the site area.
- Perviousness within streets and open space is to be generally consistent with the targets detailed in Section 9 and 10.



8.3 Public art

Public art will contribute a strong sense of “place” - the identity and interpretation of Bradfield City Centre itself - with artwork/s situated in the open spaces, walkways and built into the fabric and form of architecture and landscape. The Bradfield City Centre Art and Cultural Strategy provides a curatorial framework that guides developers in the direction and implementation of a site-specific public art program for Bradfield City Centre.

This section sets additional provisions to those set out in the Aerotropolis DCP in Section 2.19 Public Art.



Additional performance outcome

1. Enhance the quality of public spaces including parks, streetscapes, and buildings.
2. Enrich and enliven the public and private domain with high quality, aesthetic, and functional art.
3. Ensure that public art is an integrated and cohesive part of Bradfield City Centre.
4. Recognise the history and cultural significance of the site through interpretive public art.
5. Recognise and celebrate Aboriginal heritage, values and living culture in the public domain.



Additional control

1. Future development applications are to have consideration for the Bradfield City Centre Arts and Culture Strategy



Heritage Display -6 & 8 Parramatta Square by Walker, Australia

8.4 Urban heat island effect

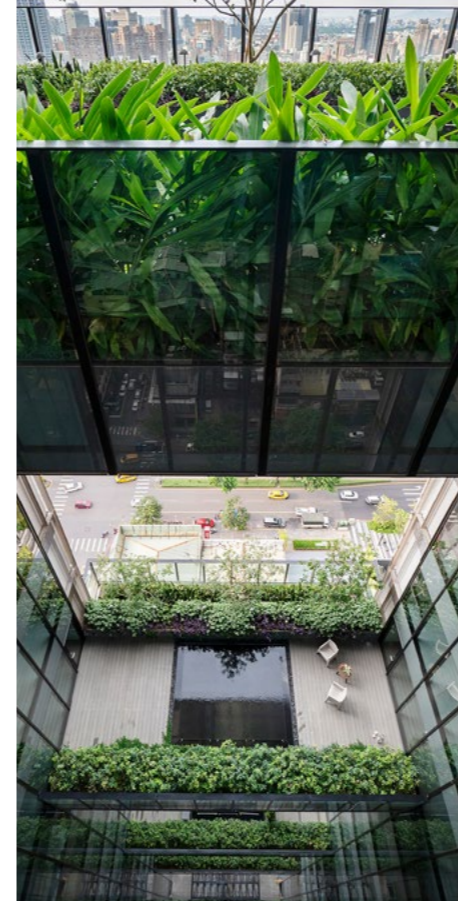
This section sets out additional benchmark solutions to supplement Section 2.5.2 of the Aerotropolis DCP relating to mitigation of urban heat island effect within the Bradfield City Centre.



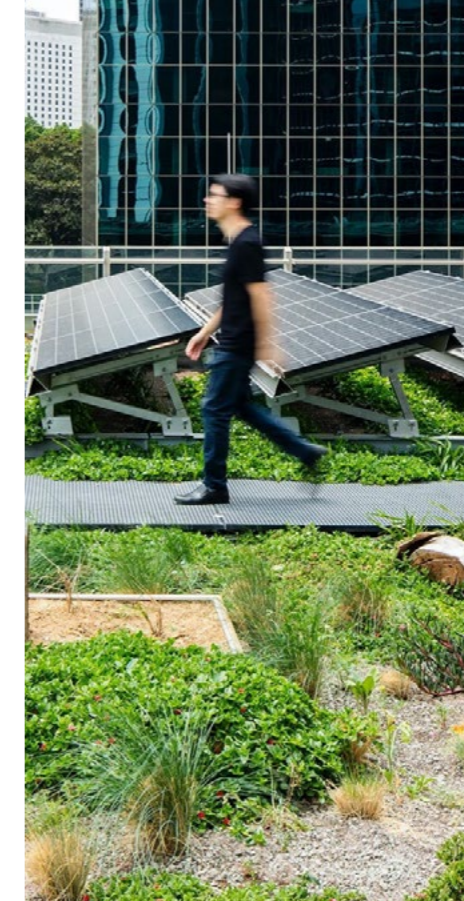
Additional benchmark solutions

Green cover on buildings is to achieve the following:

1. Building facades to integrate green planting such as landscaped balconies and terraces, green walls, and climber plants.
2. Minimum 80% roof areas covered with planting or integrated with solar photo-voltaic systems.
3. Demonstrate how electrical systems minimise waste heat production.



Breathable green facade that also filters stormwater. Sky Green, China.



Integrated landscape improves solar panel performance. Daramu House, Barangaroo.



Vertical landscaping improves local micro-climate. Bosco Verticale, Milan.

8.5 Passive heating and cooling

Development applications are to have consideration for the additional passive heating and cooling controls.



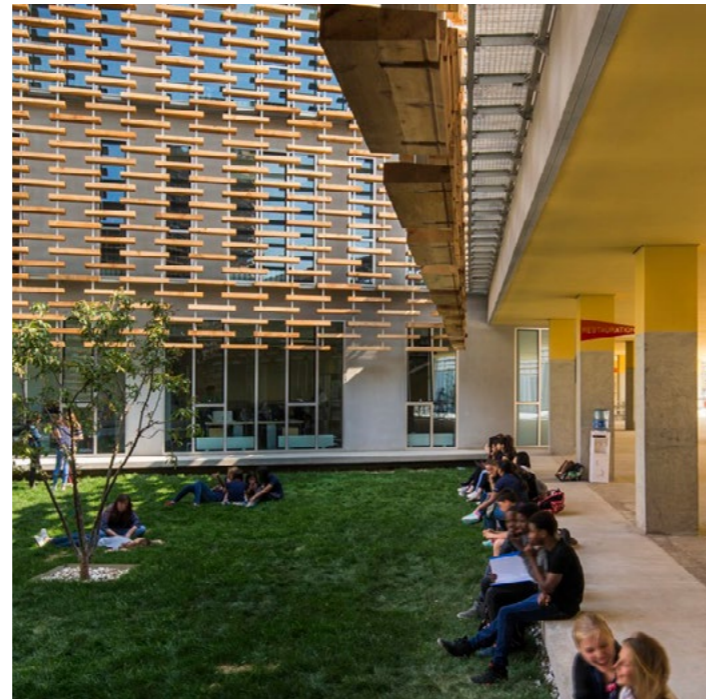
Additional performance outcome

1. Buildings are to be designed to maximise passive heating and cooling.



Additional benchmark solutions

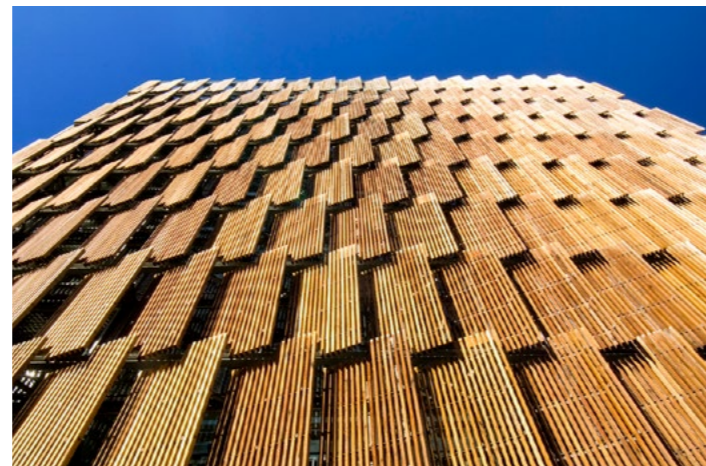
1. Use passive design features (building orientation, shading systems, natural ventilation, etc) to maximise daylight access and ambient temperature.
2. Orient buildings to maximise energy efficiency and daylight harvesting.
3. Provide western and northern facades with external shading devices to shield the building from hot summer sun, while allowing direct sunlight in winter.
4. Locate all heating, ventilation, air-conditioning and refrigeration (HVAC&R) heat rejection above streetscapes and public spaces to prevent heat build up within the public domain.
5. Integrate mixed-mode ventilation systems to reduce the reliance on mechanical systems.
6. Orient buildings to take advantage of prevailing winds, natural ventilation, and solar access
7. Use of evaporative cooling through passive systems (e.g., ponds, pools, fountains) and/or active, hybrid systems (e.g., evaporative wind towers, sprinklers, water curtains).
8. Integrated solutions to respond to prevailing conditions (i.e., provide capacity to be switched off when local conditions negate the benefits of the system).
9. Materials and finishes to be cool—use light coloured building materials.



Screens provide a secondary facade to filter sun access internally. France



A veil façade with petals fixed at different angles to suit their orientation mitigates glare, heat, and filters sunlight.



A green, sustainable and vibrant vertical community. Brink Tower, Amsterdam.

8.6 Wind impacts

Development applications are to have consideration for the wind mitigation controls.



Additional performance outcome

1. To ensure that the building form enables the provision of a safe and comfortable pedestrian level wind environment, including for street frontages, outdoor eating areas, and open spaces.



Additional benchmark solutions

1. To ensure comfort in and around new buildings, the wind speeds below must be exceeded for less than 5% of the time around new buildings for both hourly mean and gust equivalent mean wind speeds:
 - < 4 m/s: Sitting (such as cafe style dining), or scheduled outdoor events
 - < 6 m/s: Standing, generally supports outdoor planting
 - < 8 m/s: Walking in retail areas / active street frontages
 - < 10 m/s: Walking / non-active street frontages (walking from A to B or for cycling)
2. To ensure comfort in public open space, the wind speeds below must be exceeded for less than 5% of the time around new buildings for both hourly mean and gust equivalent mean wind speeds:
 - < 4 m/s: for all other open space
 - < 8 m/s: for active open space.
3. To ensure public safety, a 3 second moving average gust wind speed of 23 metres/second must be exceeded for less than 0.1% of time.
4. A wind study report must be submitted with the DA for all buildings greater than 20 metres in height.
5. For buildings greater than 40 metres in height, or sites with more than one building greater than 20 metres in height, the quantitative results from a wind tunnel test are to be included in the wind study report.



Barangaroo South and Boomerang Tower both show the use of stepped buildings, awnings and trees to mitigate wind impacts.

9

Movement

This section sets out the proposed street network for the Bradfield City Centre and street cross sections which form alternative benchmark solutions to the street cross sections referenced in Sections 2.6(P01), 3.1(P01), 4.1(P01) and 5.1(P01) in the Aerotropolis DCP.

Other relevant provisions of Sections 2.6(P01), 3.1(P01), 4.1(P01) and 5.1(P01) continue to apply.

Alternative benchmark solutions

1. Street layout and design is required to be generally consistent with the plans and street cross sections outlined in this section.
2. Future development applications are to consider the Bradfield City Centre Access and Servicing Plan.
3. Future development applications are to consider the Bradfield City Centre Travel Demand Strategy.
4. Development applications are to include a Green Travel Plan

Artist's impression of the city zone environment within the city blocks providing safe, equitable and high amenity access through the Bradfield City Centre.



9.1 Pedestrian network

Bradfield City Centre prioritises pedestrian movement with continuous pedestrian paths along all major corridors and a highly permeable network of streets and pedestrian connections.

The quality of pedestrian network will be extremely high with safe and convenient walking routes, continuous awnings for weather protection, extensive tree canopy cover throughout the public domain and high quality public realm materials, furniture and lighting.

The pedestrian network will continue along Moore Gully / Thompsons Creek to the broader Wianamatta South-Creek corridor and will also provide strategic connections to the surrounding urban areas.

Pedestrian network

- Pedestrian Priority (shared zones and car-free)
- Footpaths both sides of street
- 400m walkable distance from Metro station
- Mid-block permeability (final alignment to be determined through detailed design)

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



Pedestrian network






9.2 Cycling network

Bradfield City Centre will be a bike friendly city that maximises safety and convenience and connects to the broader active transport network set out in the Aerotropolis Precinct Plan.

A combination of off-street bike trails, separated bike lanes on major streets and slow, safe cycling streets within neighbourhoods are proposed to collectively create a cycling network rivalling global leaders.

The city will also provide ample provision of facilities such as bike parking, charging stations, tyre pumps and end of trip facilities to further encourage and support cycling.

Cycling network

-  Off-street bike trail
-  Protected bike lane
-  Safe cycling street

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



9.3 Public transport network

With a major interchange fronting the Central Park, ultimately comprising rail and major bus routes, Bradfield City Centre will be a truly transit-oriented city that provides convenient, safe and high quality access via public transport.

Public transport network

- M Rail Station (existing / future)
- ▬▬▬▬ Rapid Bus Route
- ▬▬▬▬ Frequent Bus Route
- ▬▬▬▬ Local Bus Route
- Future Bus-Only Zone

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

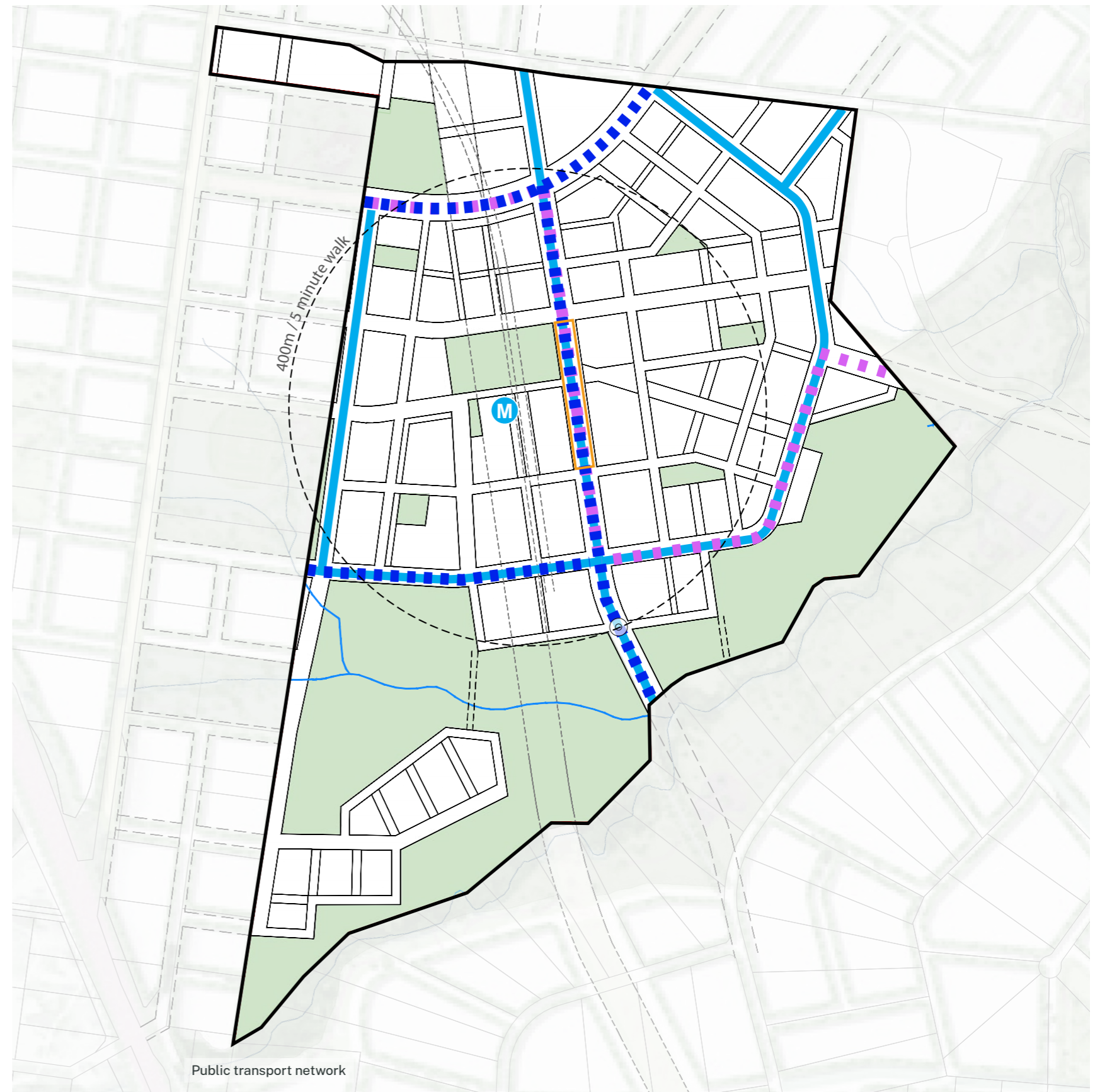
BDA and TfNSW to determine “triggers” for bus-only conversion when alternative traffic paths become available in the local street network for Bradfield City Centre by diverting through-running general traffic from the future bus interchange.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.

Rapid bus routes: will provide fast, frequent, and efficient bus services within the Bradfield City Centre. The Western Sydney Rapid Bus Program will connect Bradfield City Centre with Metropolitan Clusters such as Campbelltown-Macarthur, Liverpool, and Penrith, as well as Western Sydney Airport.

Frequent bus routes: will provide frequent bus services that efficiently connect centres and other public transport services to surrounding areas. Frequent bus routes will provide strong connectivity between Bradfield City Centre, other parts of the Western Sydney Aerotropolis, and Strategic Centres and Local Centres in the Western Parkland City.

Local bus routes: will connect all residents and businesses within the Bradfield City Centre with nearby centres (such as Bradfield South and Rossmore) and/or other public transport connections such as rapid bus routes and Sydney Metro.



Public transport network



9.4 Street types

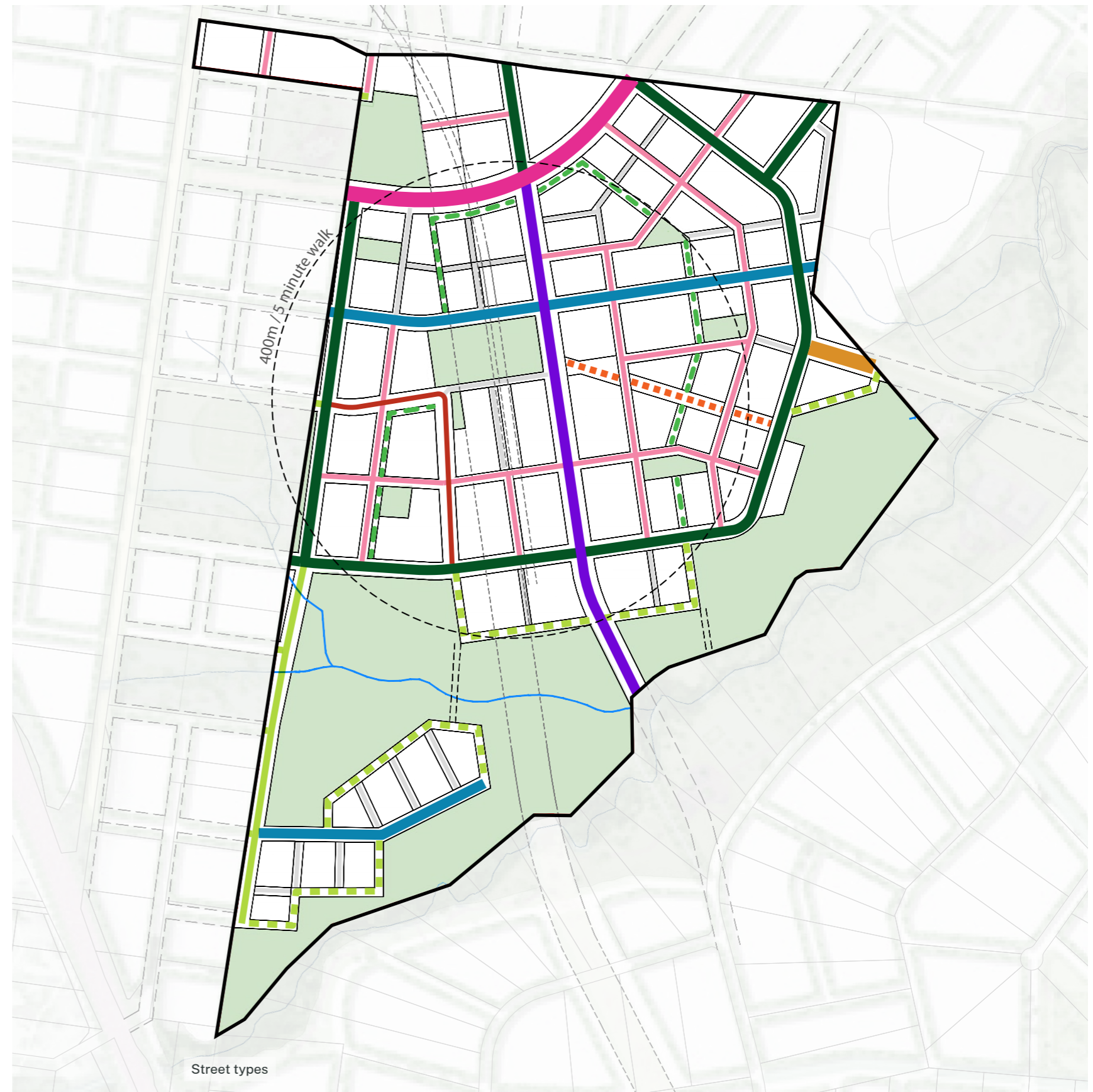
The Master Plan is generally consistent with the street network and hierarchy proposed in the Aerotropolis Precinct Plan, however a number of street sections have been further refined and additional street types provided to offer greater diversity and achieve the vision for a pedestrian-focused, safe and sustainable movement network within the Bradfield City Centre.

Street types

- Metro link boulevard
- Sub-Arterial Road
- Transit Boulevard
- Commercial High Street Type A
- Commercial High Street Type B
- City Street
- City Walk West
- Park Edge Street (as per Aerotropolis DCP)
- City Parklands Promenade
- City Walk East
- Green Loop
- City Lane

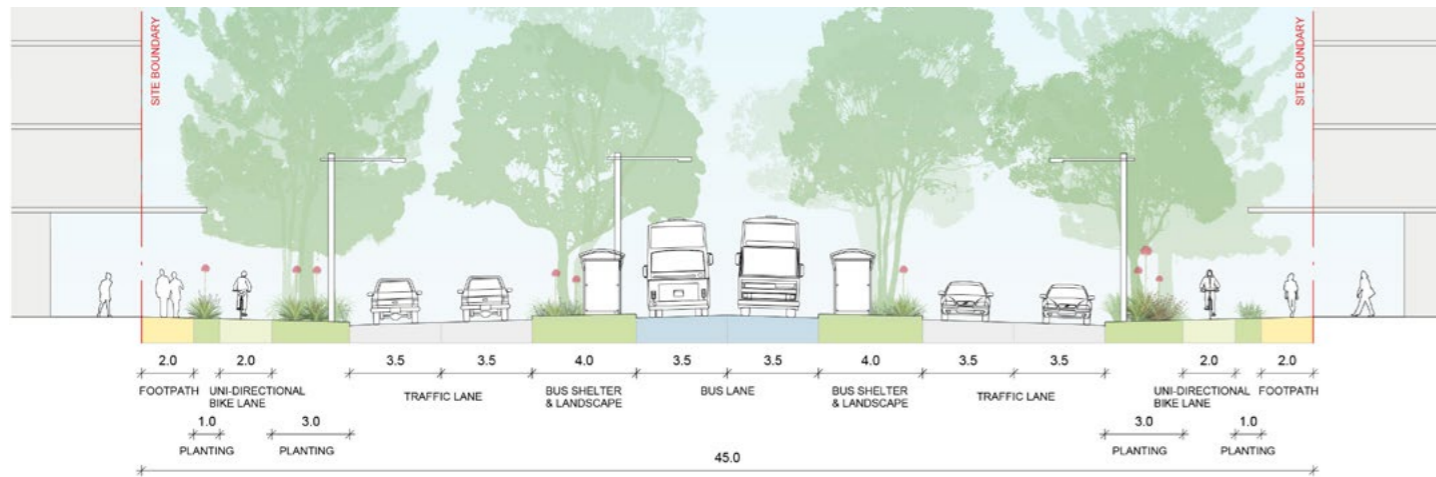
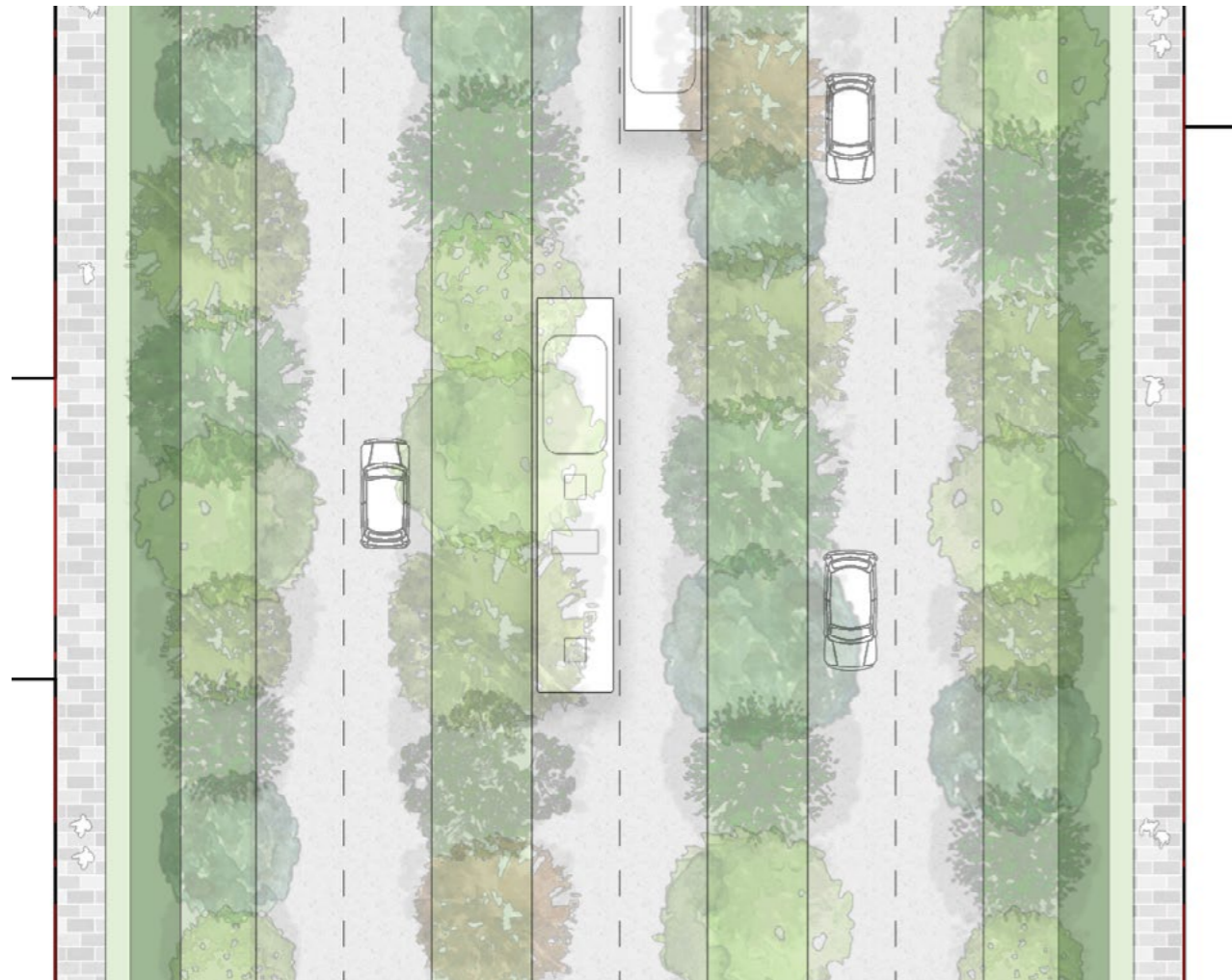
Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



9.5 Metro Link Boulevard

Typical plan and section



Movement and place

Metro Link Boulevard: Main Street (Transit Boulevard)

Movement

- Prioritises and encourages public transport flow and accessibility.
- All pedestrian/cycle crossings signalised.
- Crossings are to be located in relation to public transport hubs, providing a short and safe route to the Bradfield City Centre.

Landscape

- Planting zones function as traffic calming measures; consisting of small trees to larger canopies.
- Canopy size is to be considered to maximise mitigation of urban heat island effect.
- Max height 600mm for understorey planting to maintain sight lines.
- Variation in tree species to avoid monoculture planting and form Interlocking canopies.

Perviousness	Tree canopy cover
--------------	-------------------

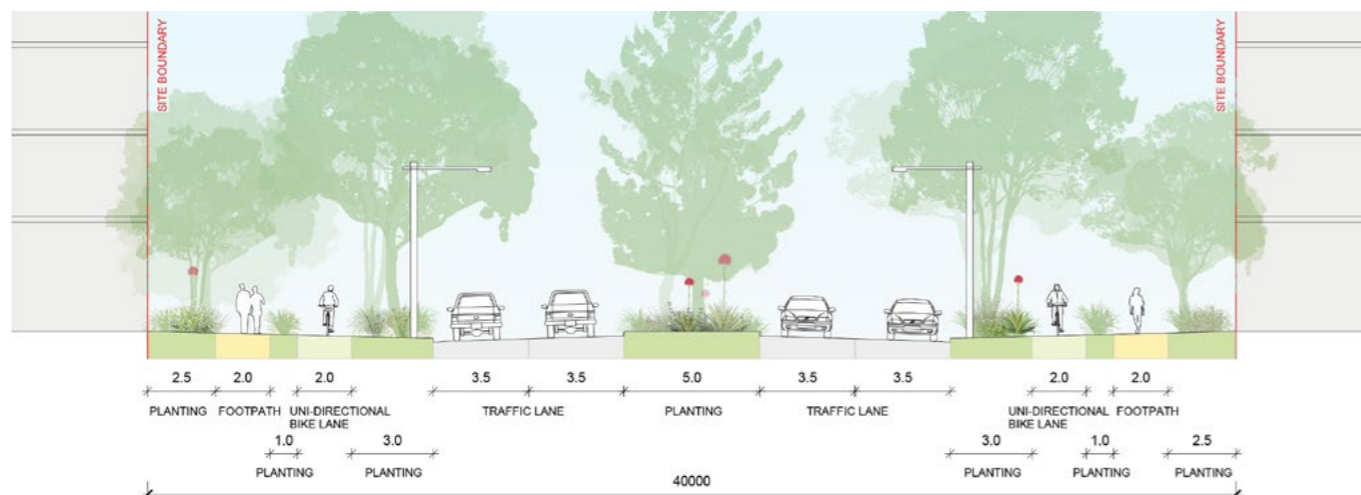
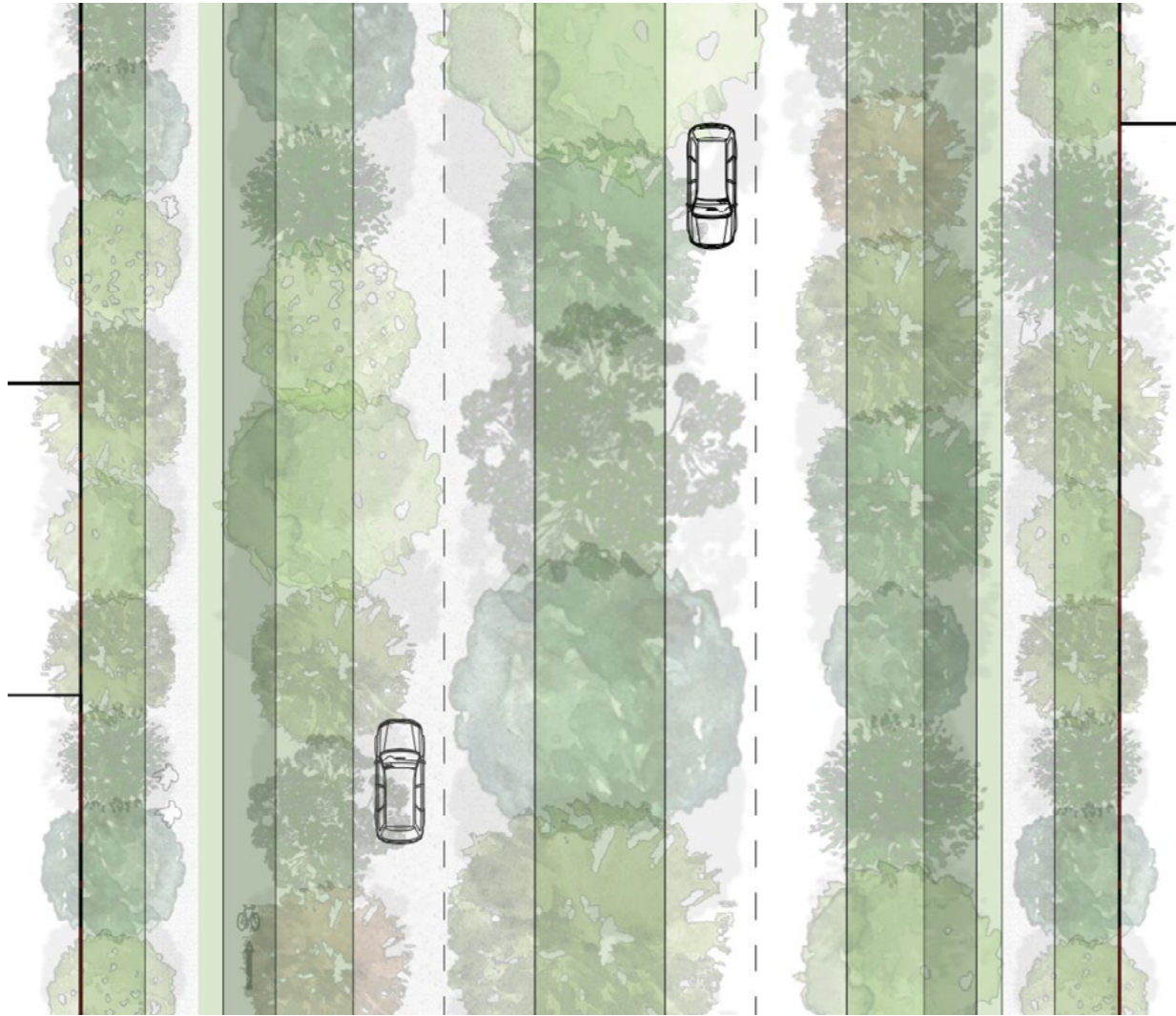
30%

36%



9.6 Sub-Arterial Road

Typical plan and section



Movement and place

Main Street (Connector Avenue)

Movement

- Prioritise movement of pedestrians, cyclists, public transport and vehicles between centres.
- Increases opportunities for walking and cycling by integrating connections to Bradfield City Centre and regional networks.
- All pedestrian/cycle crossings signalised.

Landscape

- Significant canopy coverage a priority to mitigate the impacts of urban heat.
- Water sensitive urban design utilised in planting verges where possible through passive irrigation.
- Max height 600mm for understorey planting to maintain sight lines.
- Variation in tree species to avoid monoculture planting and form interlocking canopies.

Perviousness Tree canopy cover

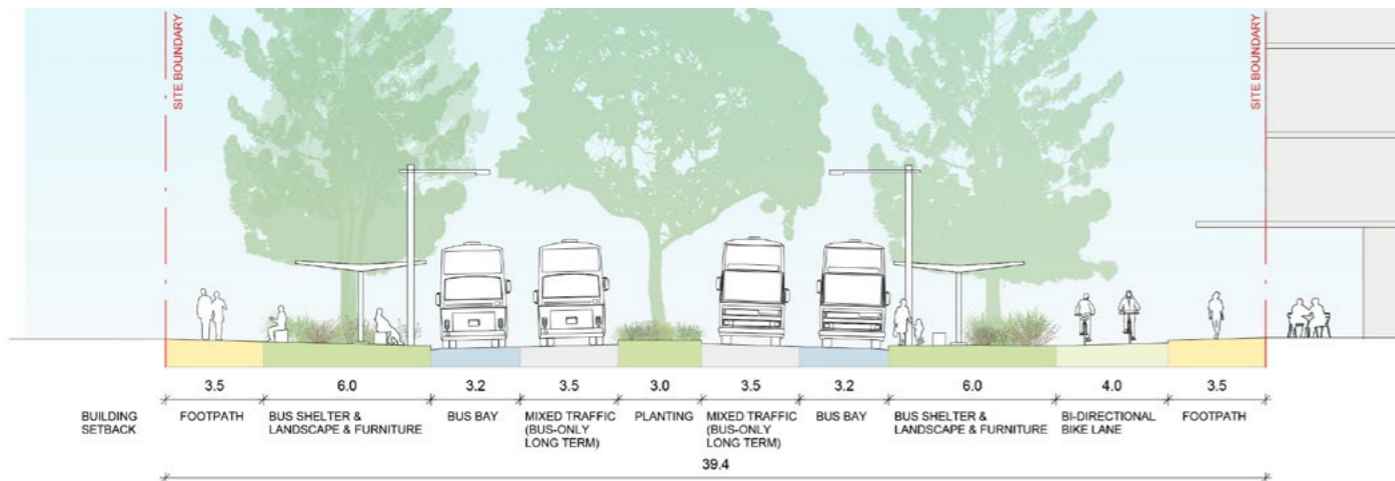
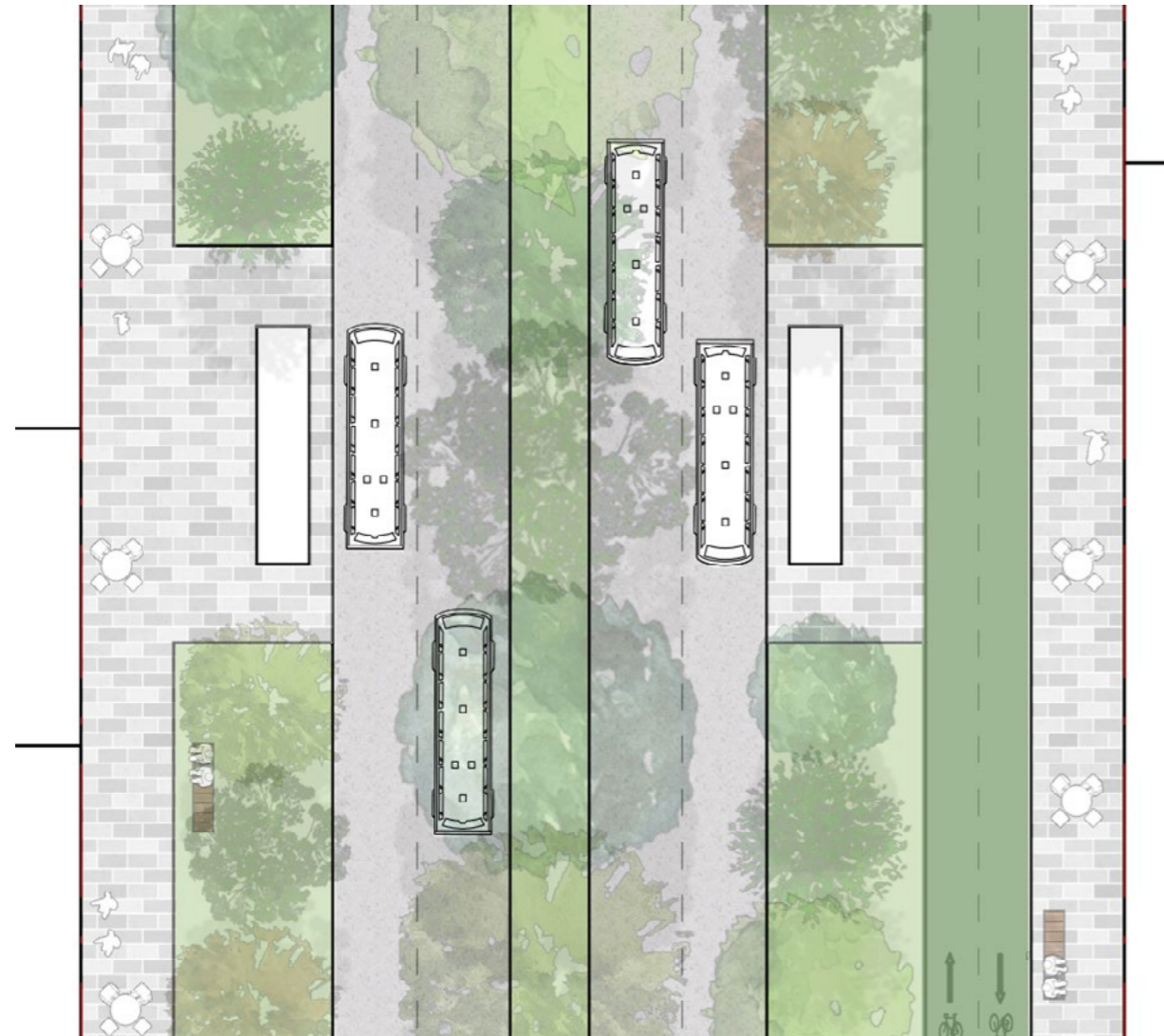
45%

54%



9.7 Transit Boulevard (bus zone)

Typical plan and section



Movement and place

Main Street (Transit Street)

Movement

- Mixed traffic lane initially with potential to convert to bus-only in future if required.
- Wide bus shelters for high forecast patronage.
- All pedestrian/cycle crossings signalised.
- The only street with bi-directional bike lane in order to minimise pedestrian-cycle conflicts between bus and Metro.

Landscape

- Tree canopy to provide shade for people waiting for bus and also avoid interference with buses.
- Water sensitive urban design utilised in planting verges where possible through passive irrigation.
- Planting zones function as traffic calming measure, whilst maximising canopy coverage for mitigation of urban heat island effect.
- Max height 600mm for understorey planting to maintain sight lines.

Perviousness Tree canopy cover

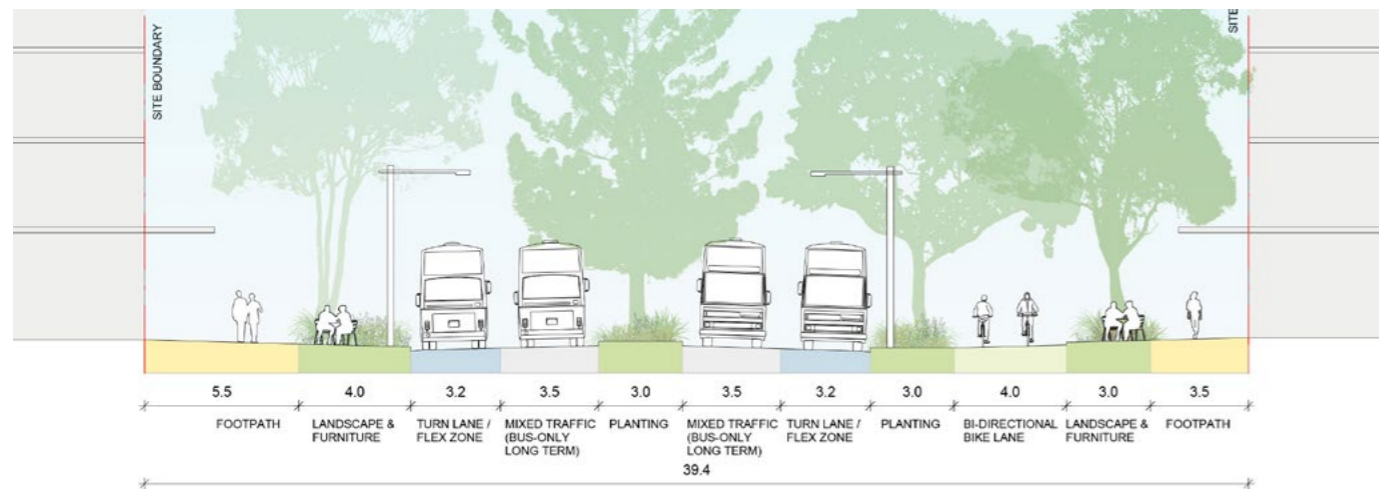
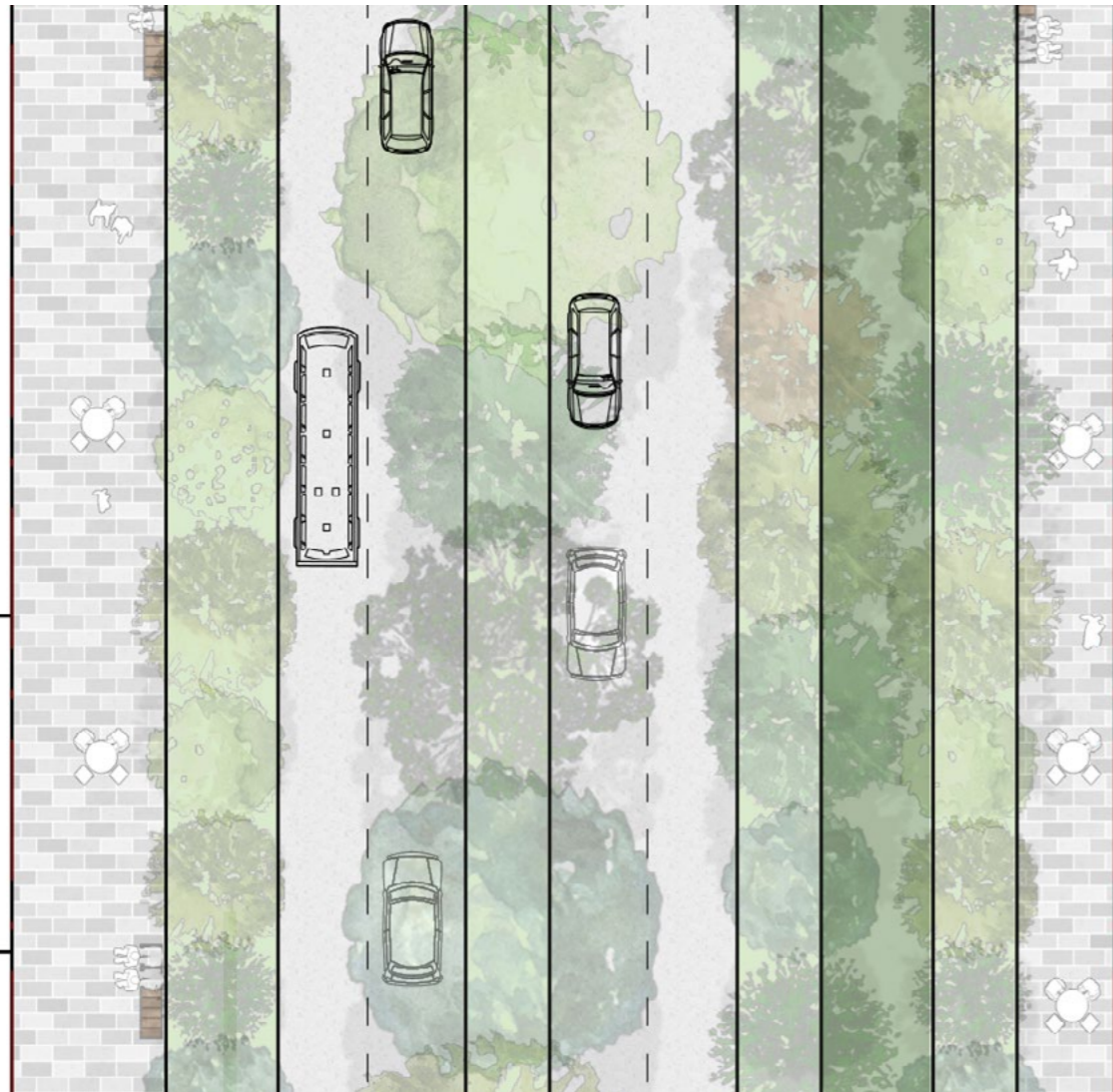
35%

42%



9.8 Transit Boulevard (outside bus zone)

Typical plan and section



Movement and place

Main Street (Transit Street)

Movement

- Mixed traffic lane initially with potential to convert to bus-only in future if required.
- All pedestrian/cycle crossings signalised.
- The only street with bi-directional bike lane in order to minimise pedestrian-cycle conflicts between bus and Metro.

Landscape

- Tree canopy to provide shade but avoid interference with buses.
- Water sensitive urban design utilised in planting verges where possible through passive irrigation.
- Planting zones function as traffic calming measure; whilst maximising canopy coverage for mitigation of urban heat island effect.
- Max height 600mm for understorey planting to maintain sight lines.

Perviousness Tree canopy cover

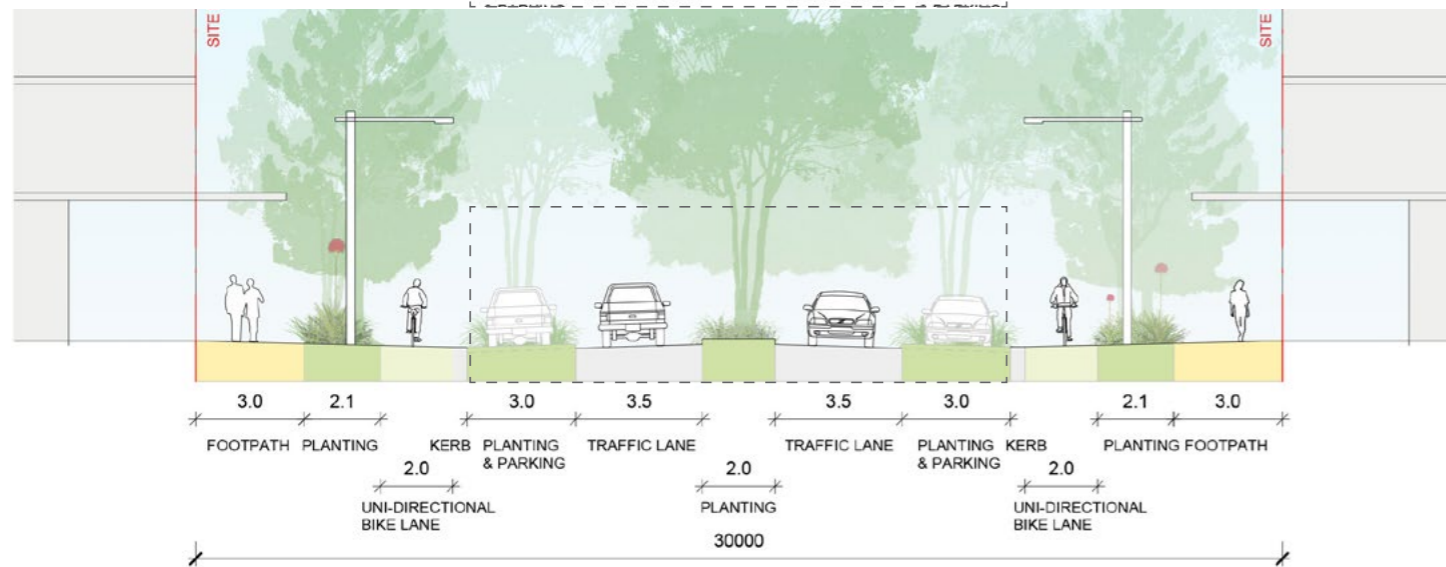
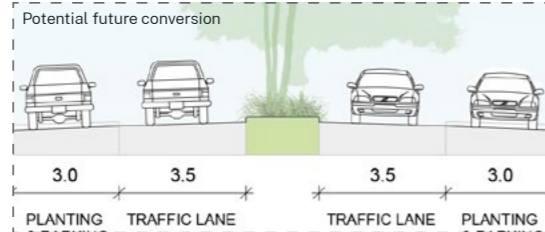
29%

77%



9.9 Commercial High Street Type A

Typical plan and section



Movement and place

Local Street (Connector Street)

Movement

- Caters for all modes and active street life.
- Tighter corner radii, raised zebra crossings and raised thresholds to side streets for a more urban condition that supports pedestrians.
- Potential to be converted to provide an additional travel lane for vehicles or a specific mode such as buses or autonomous vehicles. Note zebra crossings would require conversion to signals if extra lane is added.

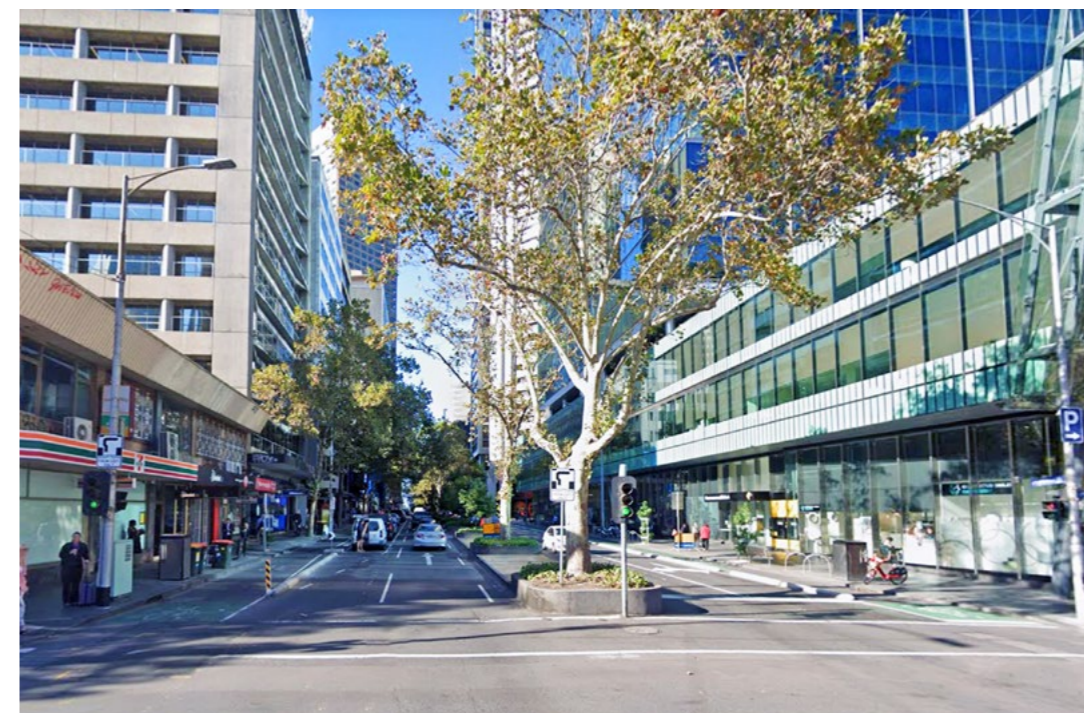
Landscape

- Maximise canopy coverage for urban heat island mitigation.
- Paving and furniture responsive to the colour and experience of Country.

Perviousness Tree canopy cover

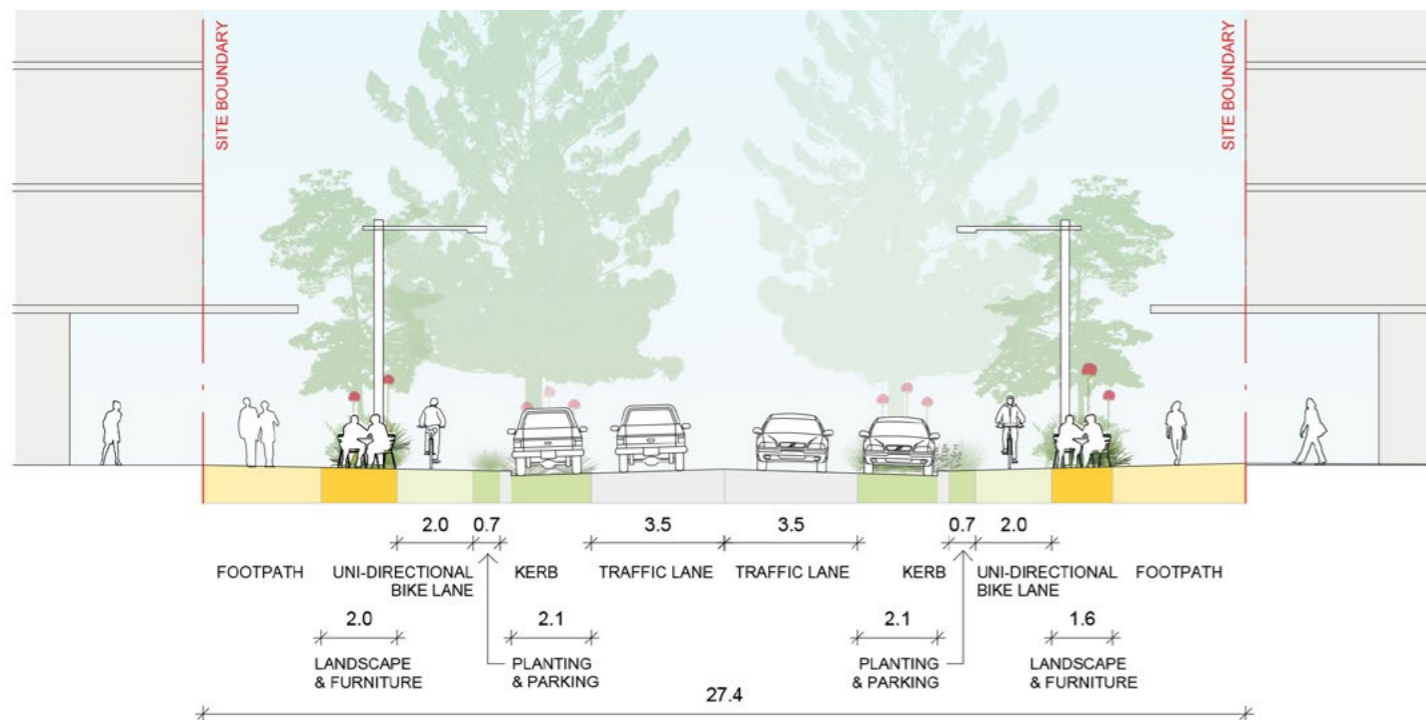
19%

86%



9.10 Commercial High Street Type B

Typical plan and section



Movement and place

Local Street (Connector Street)

Movement

- Caters for all modes as well as active street life.
- Tighter corner radii, raised zebra crossings and raised thresholds to side streets for a more urban condition that supports pedestrians.

Landscape

- Water sensitive urban design utilised in planting verges where possible through passive irrigation.
- Planting zones function as traffic calming measure; whilst maximising canopy coverage for mitigation of urban heat island effect
- Paving and furniture responsive to the colour and experience of Country.

Perviousness Tree canopy cover

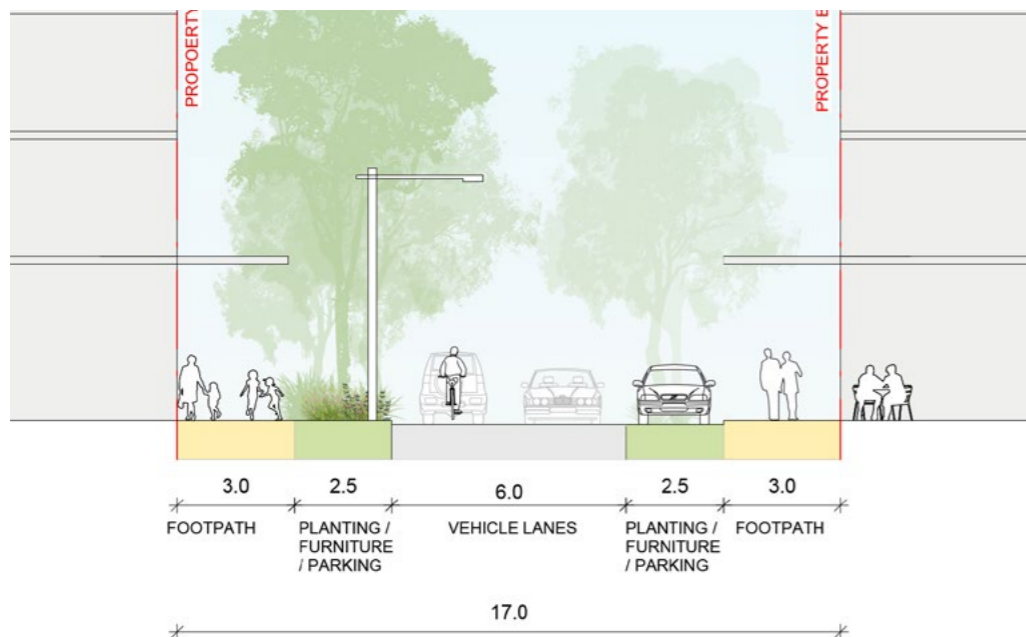
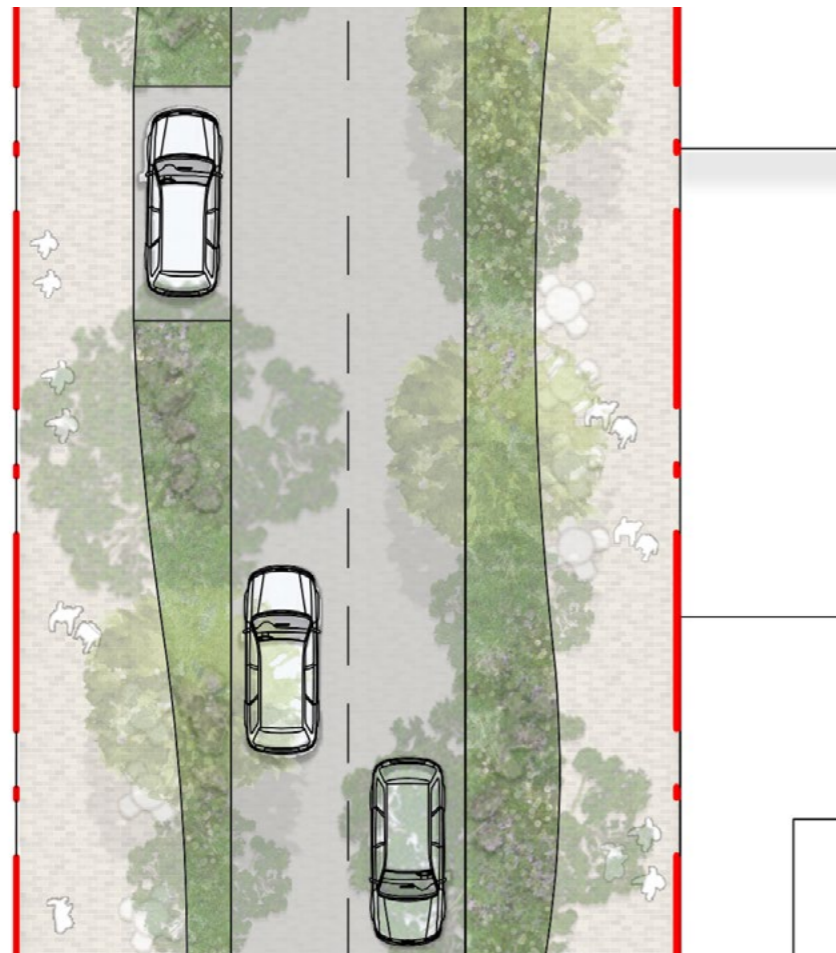
23%

76%



9.11 City Street

Typical plan and section



Movement and place

Civic Space (Civic Lane)

Movement

- Slow speeds and lower volume safe for on-street cycling.
- Access to off-street parking and loading areas.

Landscape

- Passive irrigation to planters achieved through water sensitive urban design;
- Endemic planting palette with a variety of tree species to create shaded areas.

Perviousness Tree canopy cover

16%

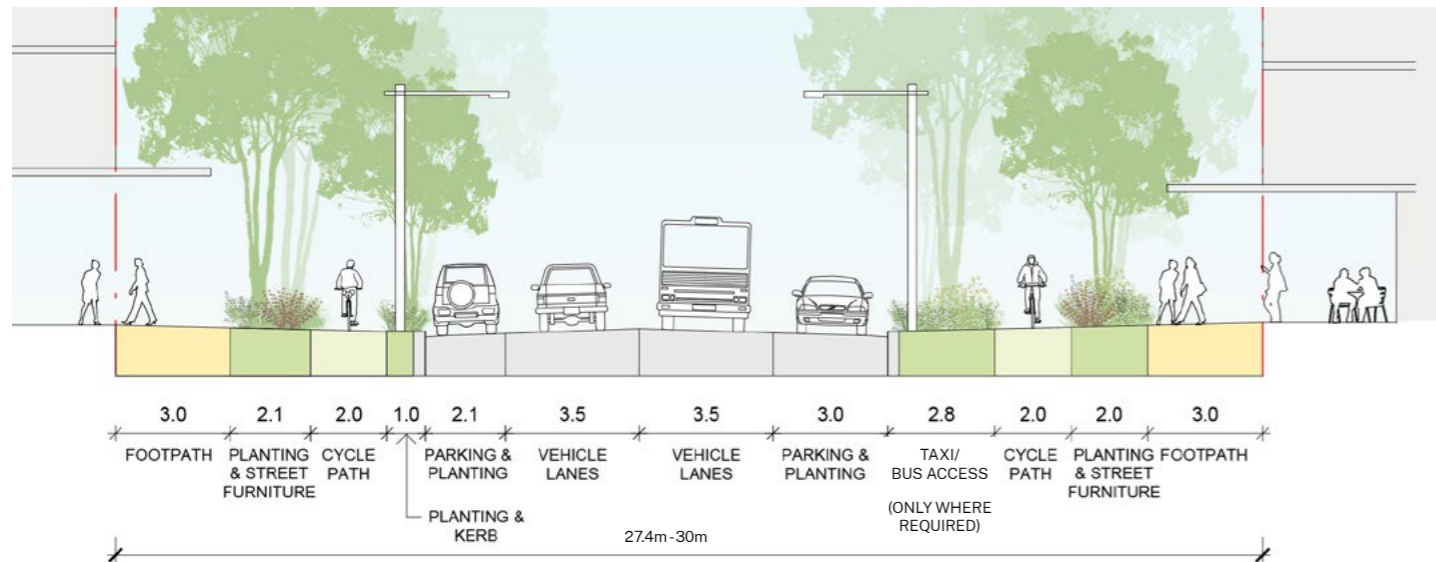
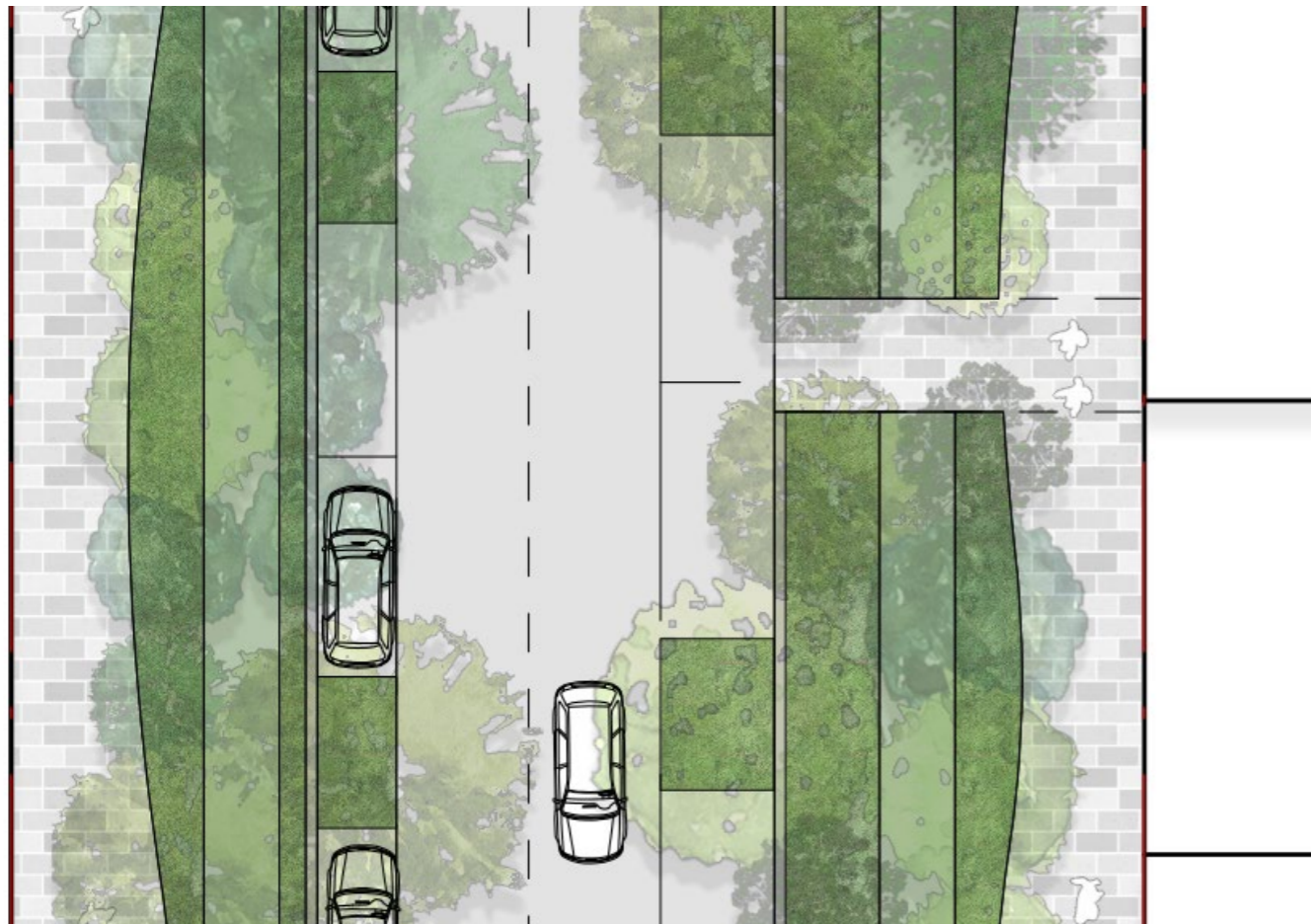
71%



Artist's impression of Bradfield City Centre

9.12 City Walk West Street

Typical plan and section



Movement and place

Civic Space (Destination High Street)

Movement

- Separated bike paths providing cycle access to transit interchange.
- Dedicated spaces for kiss n ride, taxi, rail replacement buses and provides emergency and service access to the Metro Station.
- Raised threshold at the elbow to the transit interchange.

Landscape

- Informal mixed native tree plantings with significant understorey vegetation.

Perviousness Tree canopy cover

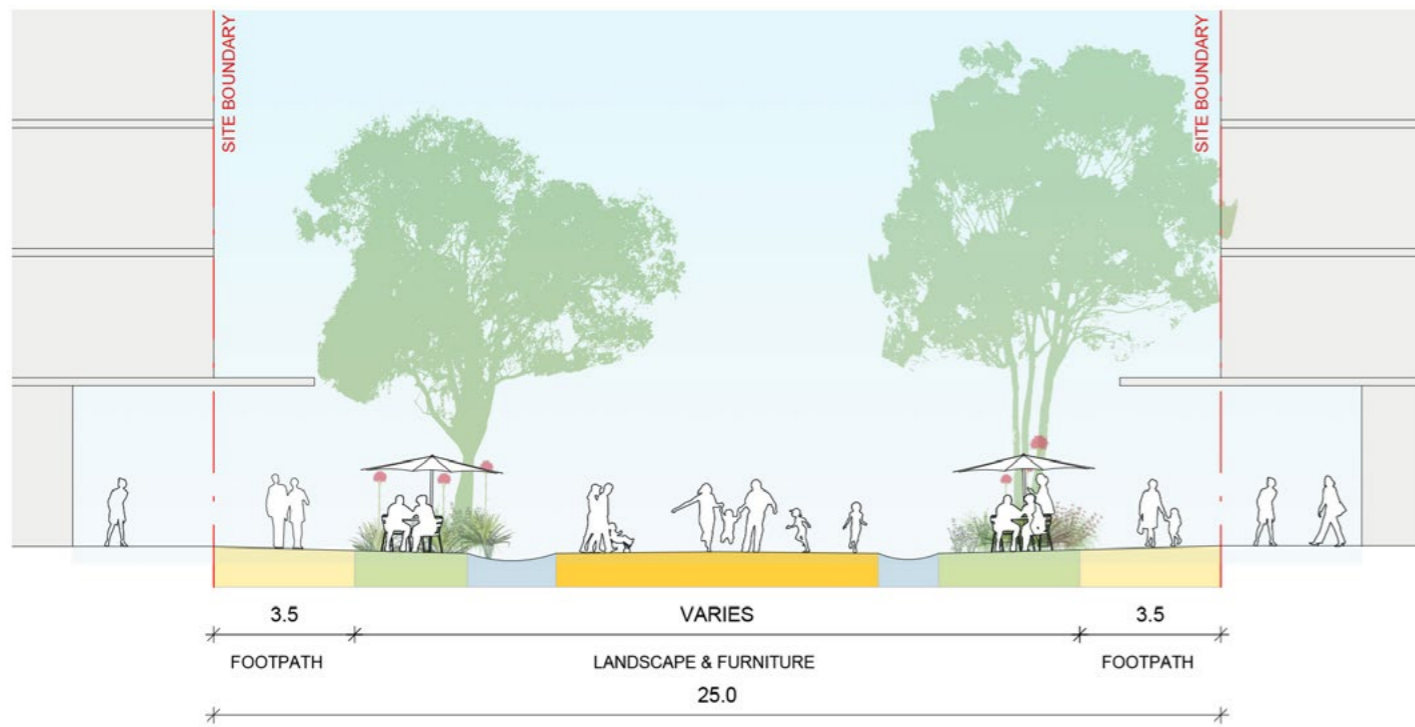
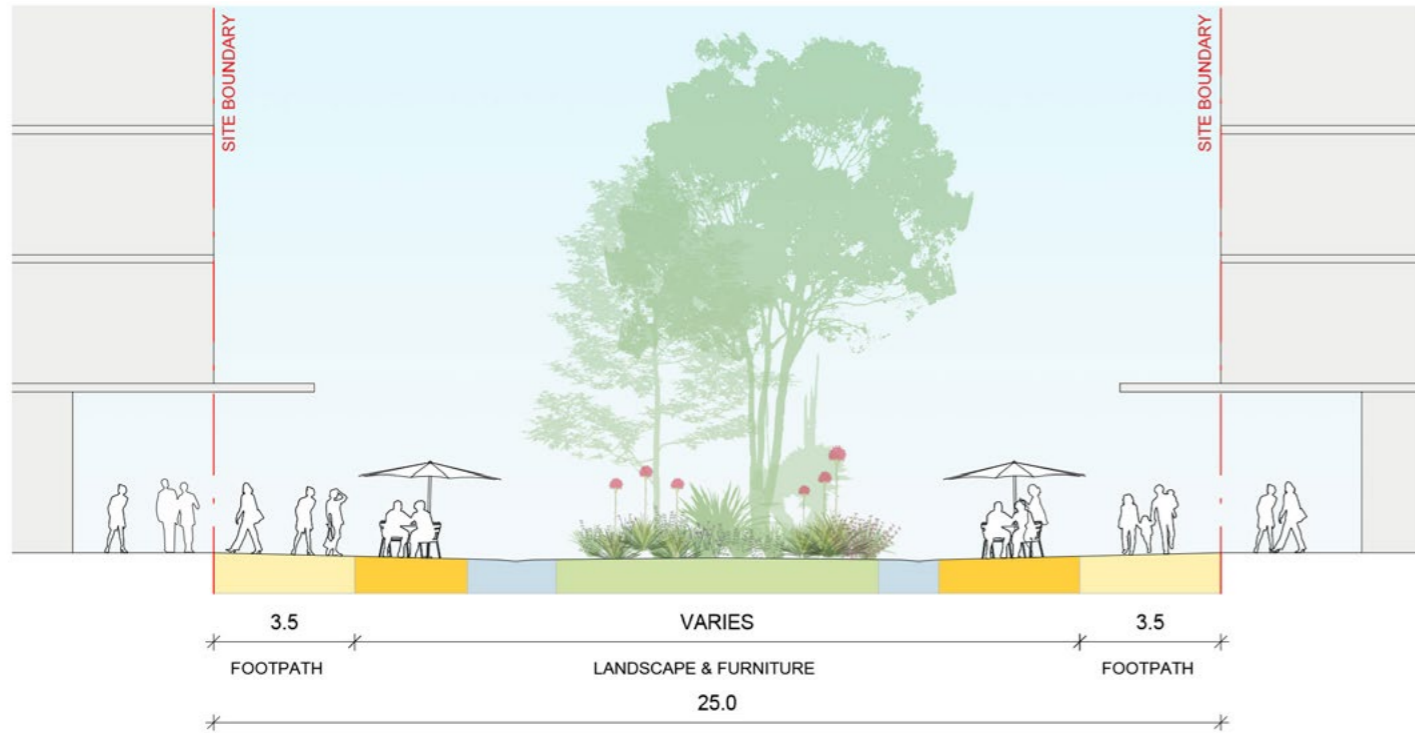
23%

57%



9.13 City Walk East Street

Typical plan and section



Movement and place

Civic Space (Mall)

Movement

- High quality pedestrian space featuring public seating, outdoor dining, play areas, lighting and smart city wayfinding.

Landscape

- Informal mixed native tree plantings with significant understorey vegetation.

Perviousness

30%

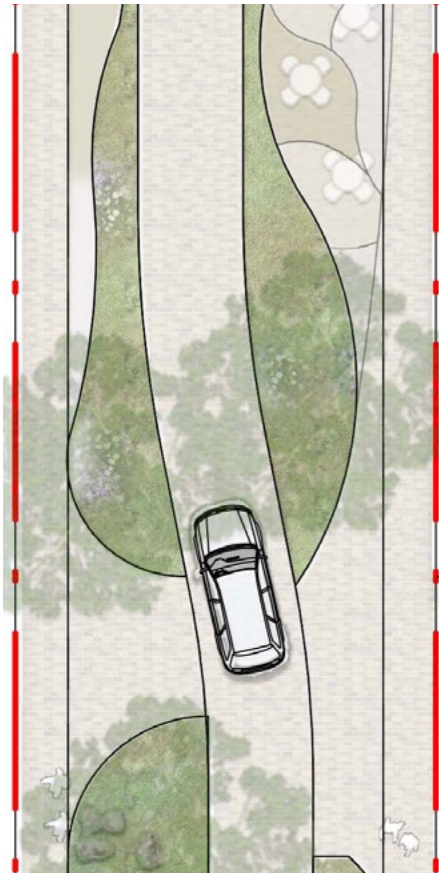
Tree canopy cover

23%



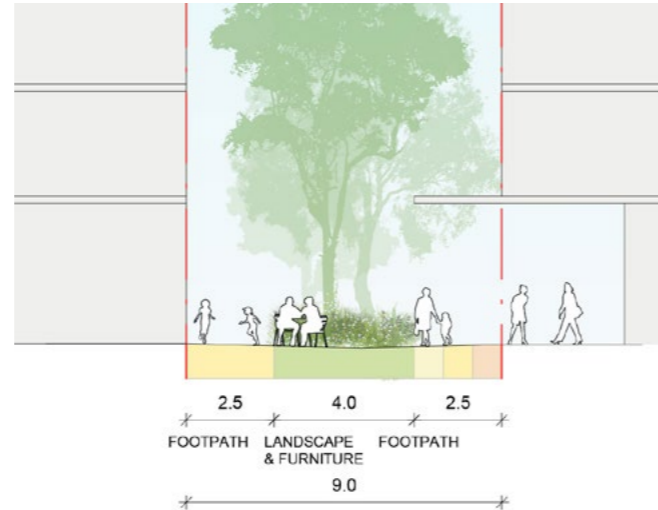
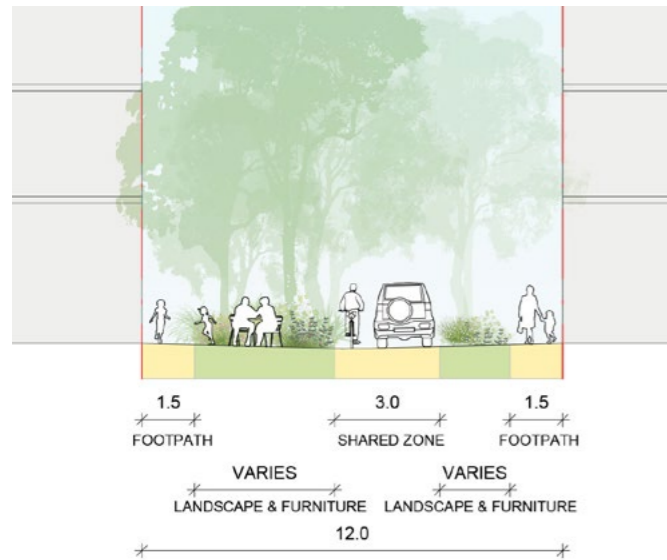
9.14 City Lane – Shared zone

Typical plan and section



9.15 City Lane – Pedestrian only

Typical plan and section



Movement and place

Civic Space (Civic Lane)

Movement

- Car-free or 10km/hr shared zone.
- Flexible movement zone either side of the vehicle lane to accommodate pedestrian activity and street life.
- Flush paving across the entire street reserve with varying tones and patterns of paving to reflect changed traffic conditions.

Landscape

- Passive irrigation to planters achieved through water sensitive urban design.
- Endemic planting palette with a variety of tree species to create shaded areas.

Perviousness

Tree canopy cover

44%

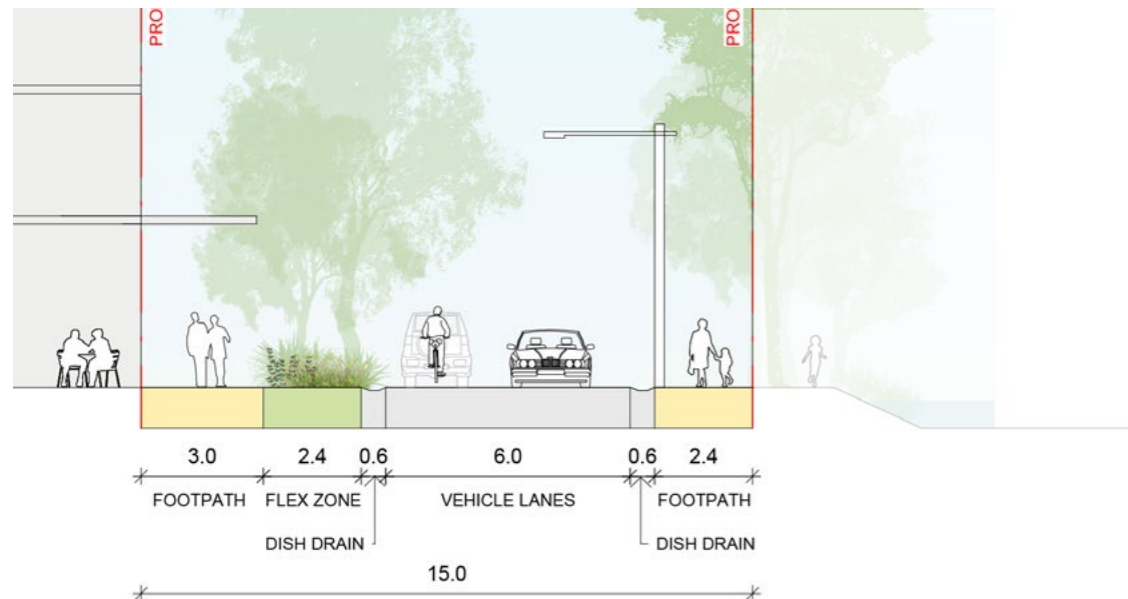
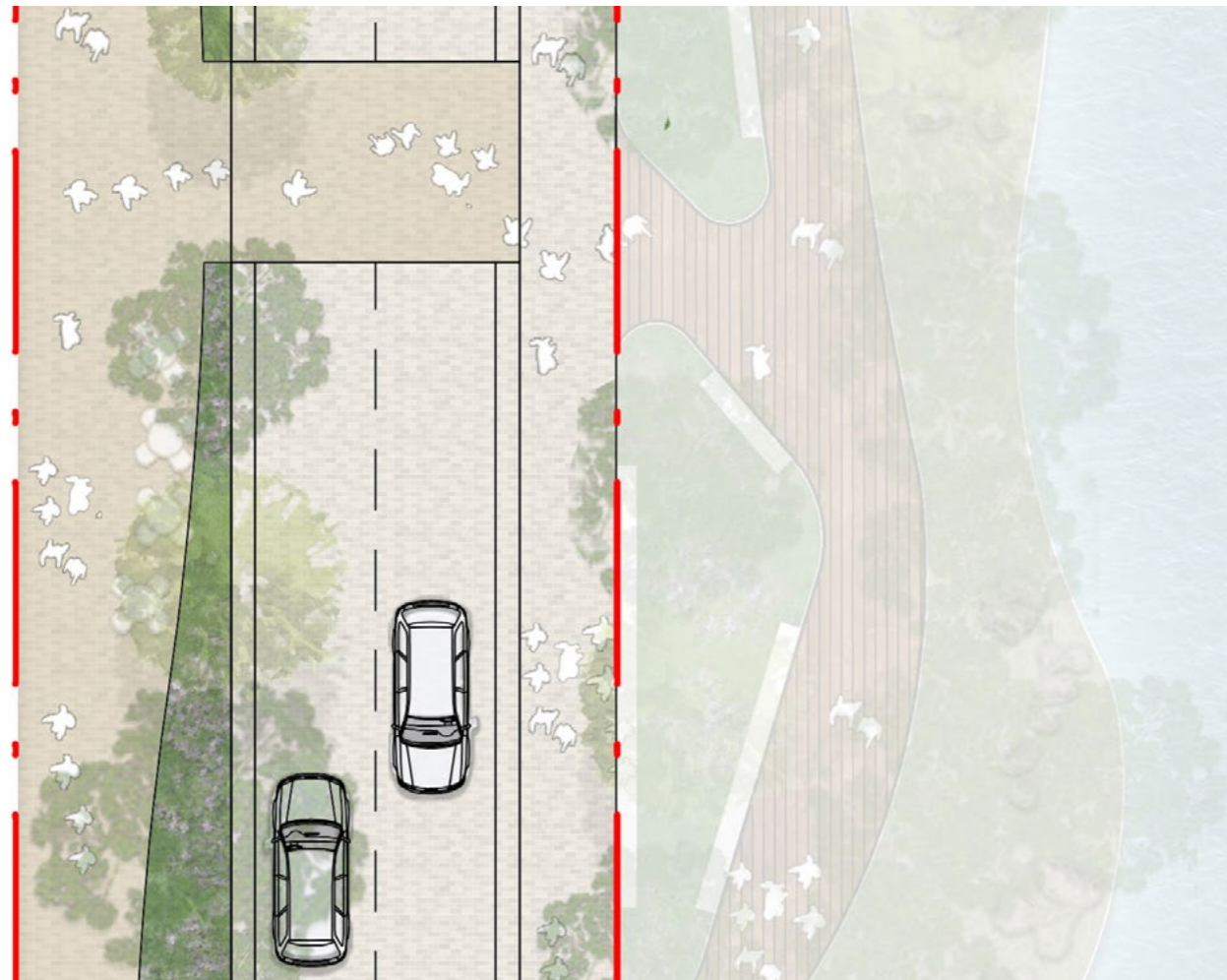
52%



Artist's impression of Bradfield City Centre

9.16 City Parklands Promenade Street

Typical plan and section



Movement and place

Civic Space (Civic Lane)

Movement

- Flexible movement zone either side of the vehicle lane to accommodate pedestrian activity and street life.
- Flush paving across the entire street reserve with varying tones and patterns of paving to reflect changed traffic conditions.

Landscape

- Passive irrigation to planters achieved through water sensitive urban design.
- Endemic planting palette with a variety of tree species to create shaded areas.

Perviousness	Tree canopy cover
--------------	-------------------

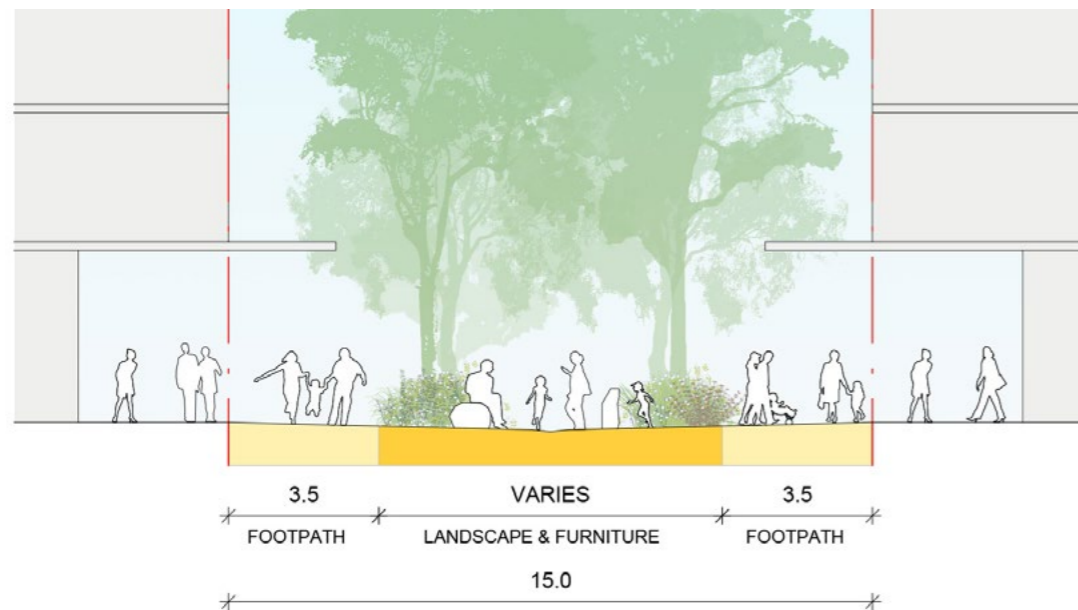
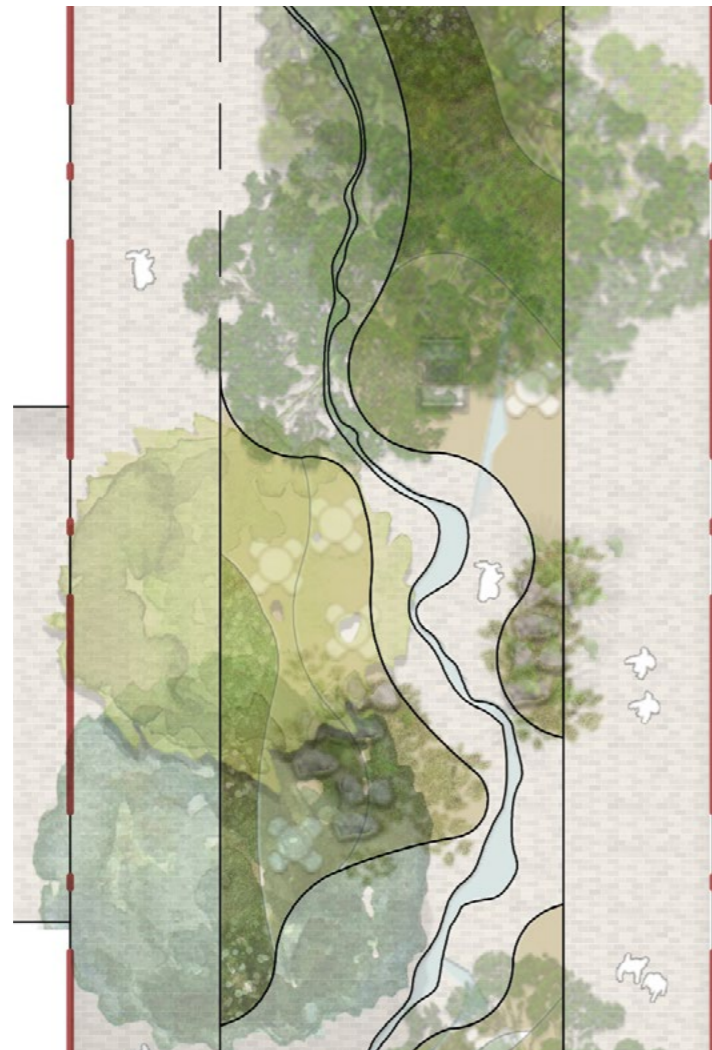
7%

38%



9.17 Green Loop

Typical plan and section



Movement and place

Civic Space (Civic Lane)

Movement

- Prioritises space for native landscape and local First Nations art while providing high levels of pedestrian movement including fully accessible movement paths and intermittent spaces for outdoor dining and public seating.
- Intersections with streets require either signalised crossings or as a minimum raised zebra crossings to prioritise pedestrian movement.

Landscape

- A connected ecosystem of endemic planting for habitat, pedestrian priority and connection with Country. This is achieved through continuous corridors of canopy, water sensitive urban design and spaces to gather, connect and learn.
- Consideration of seasonal interaction with some endemic species.

Perviousness Tree canopy cover

53%

50%



10

Public domain and public open space

10.1 Key city spaces

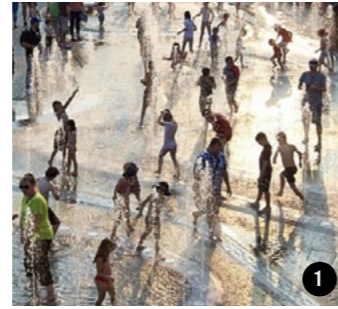
A series of distinct spaces

The city is structured on a number of key civic places to service the range of needs of residents, workers and visitors.

The key civic places comprise of the following:

- 1 Central Park** – the central focus of the Innovation Cluster conceived as a series of outdoor rooms for meeting, socialising and collaborating. The Park celebrates and ‘makes visible’ innovation, endeavour and achievement and could include unique programming and activation such as Australia’s first robotics marketplace. It is the front door to the city, the meeting place and the Green heart of the city.
- 2 Ridge Park** – a high amenity space for ecological protection and seeing and learning about Country.
- 3 City Walk East** – a green corridor which connects people from the Metro Station to the parkland and Thompsons Creek.
- 4 Green Loop** – a cool, green ecologically focused corridor connecting people, flora and fauna through the city.
- 5 Local Parks** – a meeting place for social gathering, local play and Country to breathe amongst a diverse natural environment.
- 6 City Parklands West** – a swimming pool integrated in the landscape with vegetated edges and nature walks for active recreation and social gathering.
- 7 City Parklands East** – a large gathering space for city scale events and outdoor recreation in a natural setting.
- 8 Waterfront Promenade** – the signature leisure and amenity focus for the city with water recreation, dining, retail, hotels and programming for events day and night year round.

Central Park



Ridge Park



City Walk East



Green Loop



Local park



City Parklands West



City Parklands East



Waterfront Promenade



Additional performance outcome

1. To provide a network of connected open spaces and civic spaces to service the range of needs of residents, workers and visitors.



Additional benchmark solutions

1. Open space and public domain is to be meet the locational and minimum area requirements detailed in this section.
2. Open space is to be generally consistent with the descriptions and concept designs detailed in this section.
3. Future development applications are to demonstrate consistency with the Bradfield City Centre Public Domain Strategy.



Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.








10.2 Open space provision

The Master Plan provides more open space than the Aerotropolis Precinct Plan and reflects the needs assessment in the Bradfield Social Infrastructure Strategy. Key elements include:

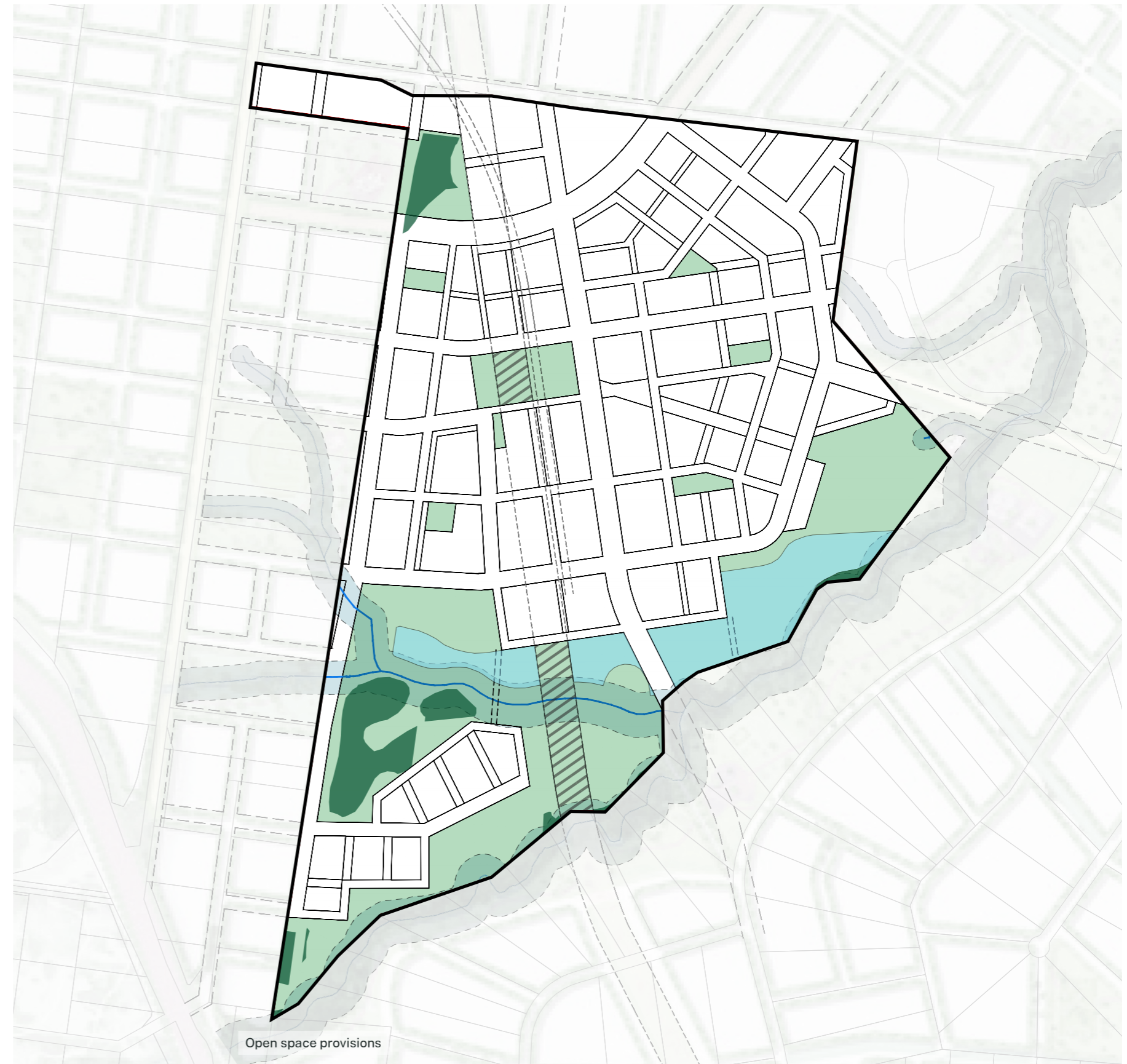
- Environment and Recreation Zone (ENZ), Existing Native Vegetation (ENV), Thompsons Creek riparian corridor and Ridge Park are provided as identified in the Aerotropolis Precinct Plan.
- A new Central Park is proposed in the heart of the city.
- Moore Gully, which has a unconfined, discontinuous channel with poorly defined bank, is proposed to be realigned slightly to the south to provide adequate space for stormwater basins (multi-use wetlands) and usable recreation areas.
- District and local parks are provided in line with the Social Infrastructure Strategy recommendations.

Open space provision

-  Retained Existing Native Vegetation (ENV)
-  Vegetated Riparian Corridor (excludes areas of retained ENV)
-  Stormwater basins and bio-retention ponds (excludes areas within riparian corridor)
-  Usable Open Space (areas outside ENV, riparian and stormwater)
-  Interim / Future Open Space

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



10.3 Central Park

Central Park is a state of the art public space at the core of Bradfield City Centre, showcasing innovation, celebrating Country and engaging community – local and abroad.

Connecting with Country

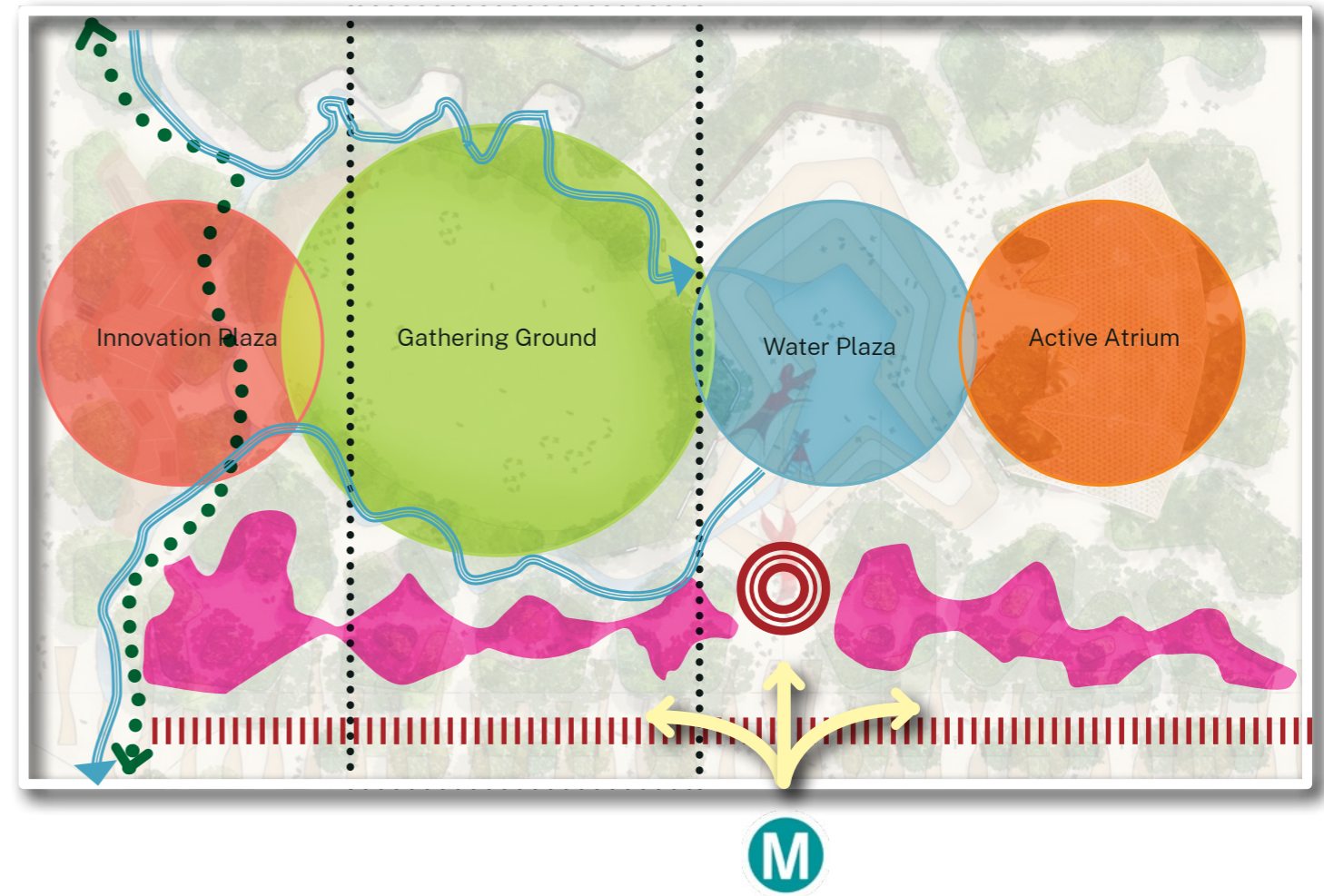
- Creating a place for users to navigate and explore Country through their senses, soundscapes and into the built environment.
- Collaboration with local artists and designers to integrate storytelling through various expressive mediums.
- Bringing landscape from the streets into the park, softening the urban fabric and increasing diversity.

Design approach

- A place with high pedestrian amenity and a variety of programming and uses.
- A strong identity that recognises Country and local Dharug culture.
- Facilitate an environment with play for all ages and abilities, integrating nature and a iconic atrium structure.
- Provide shelter and refuge from the sun and rain through both tree canopy coverage and built structures.
- An active and connected 24/7 public domain that also provides spaces of quiet reflection and retreat.
- An outdoor environment that connects with Smart City technology and facilitates innovation and collaboration within the public realm.
- Connects to the City Walk networks and key stage 1 buildings.
- Minimum Tree Canopy: 45%
- Minimum Perviousness: 40%

Considerations

- Stage 1 Metro rail corridor (underground).
- Potential future Metro rail easement that runs north–south through park (60m wide).
- Emergency/maintenance access to Metro Station.
- Water quality and treatment.
- Hostile Vehicle Mitigation approaches.

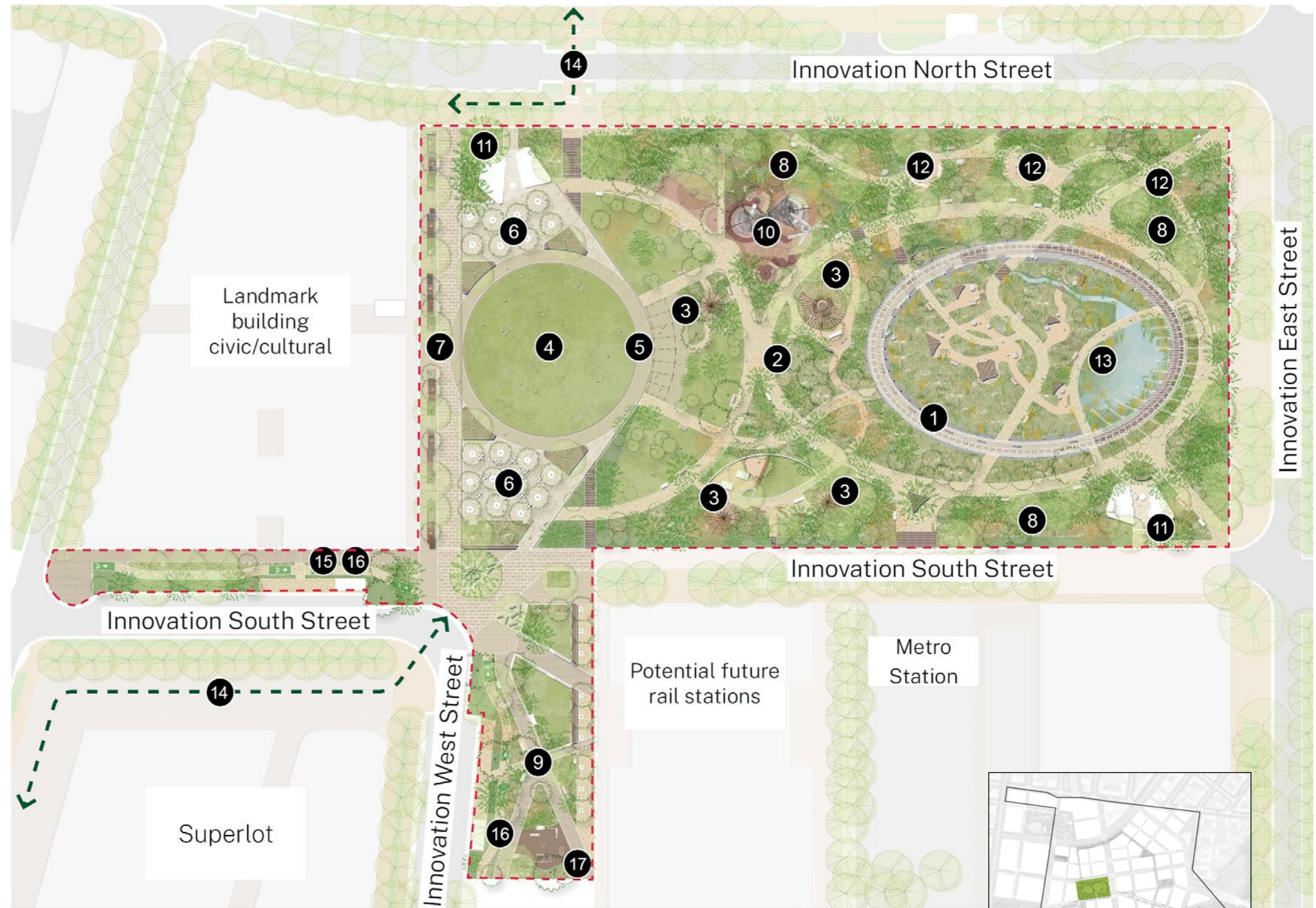


Legend

- ||||| Metro Promenade
- Water story through Green Loop
- ⟷ Green Loop connections
- 60m Rail Corridor
- ⊙ Key Public Art / Welcome to Country
- 🌿 Forest Walk

Key

- 1 Skyring
- 2 Interwoven Heart
- 3 Woven Shelters
- 4 Gathering Green
- 5 Temporary stage platform area
- 6 Cool Copse
- 7 Boulevard (green loop connector)
- 8 Woodlands
- 9 City Walk West (linear park)
- 10 Woven play
- 11 Amenities
- 12 Entangled Gardens artworks
- 13 Wetland
- 14 Green Loop (by others)
- 15 Taxi Shelter (Sydney Metro)
- 16 Kiss 'n' ride Shelter (Sydney Metro)
- 17 Fitness station



Illustrative Plan of Central Plan submitted with State Significant Development Application (SSDA 65490715)

Final Design will be subject to approval.

10.4 City Walk East

A pedestrian-only green street connecting central park to Thompsons creek event zone. Creating a variety of places to provide amenities, diverse experience, and transition from urban core to natural environment.

Connecting with Country

- Integration of native planting into the landscape to create a green, liveable, resilient and sustainable neighbourhood.
- A linear park linking central park to creek and opens up to Sky Country while maintaining visual connections to Thompson’s Creek waterfront.
- Recognise the value of water and propose water features for stream interpretation.


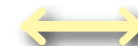

Design approach

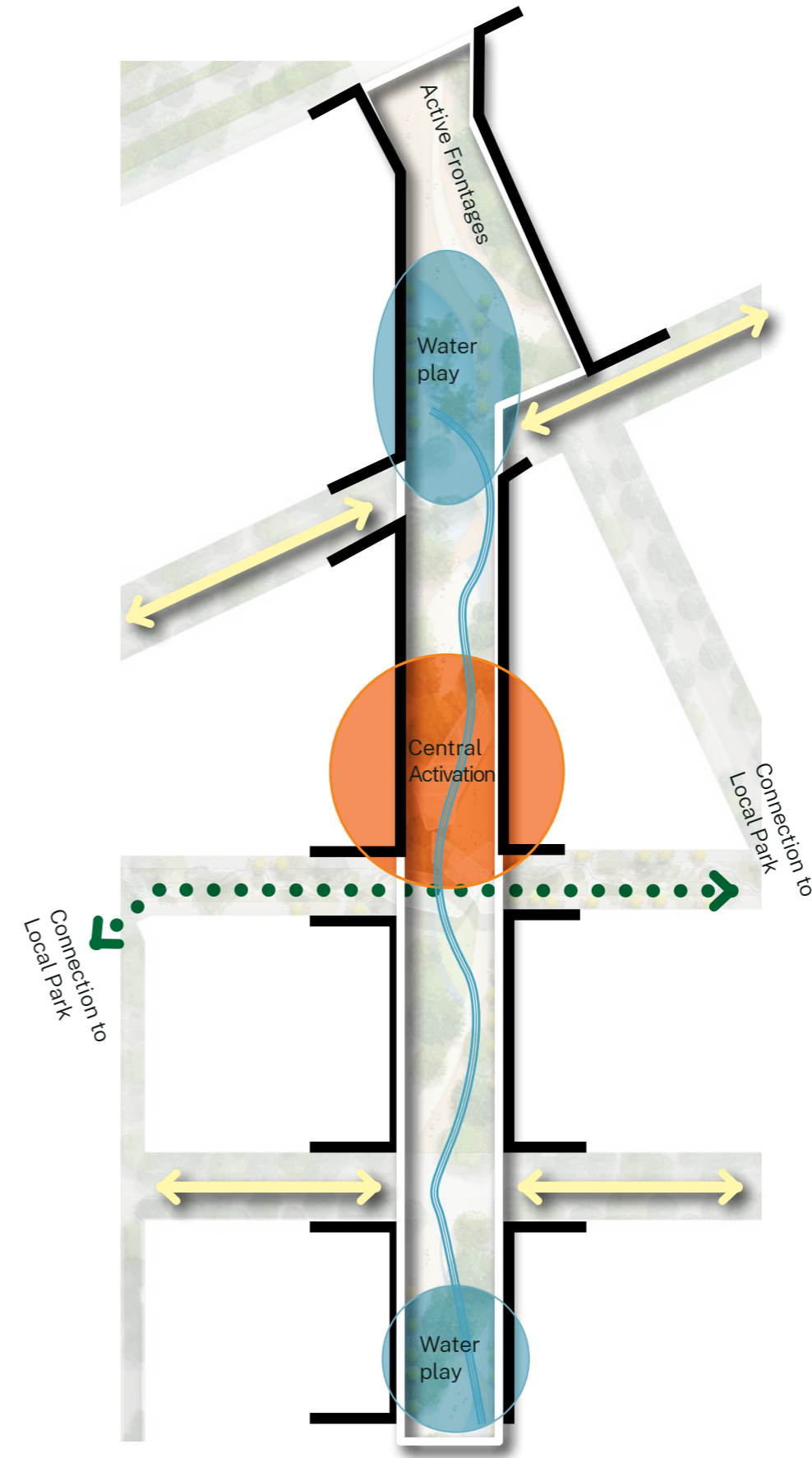
- A pedestrian only street connecting Central Park to City Parkland East event zone with pockets of green along the route.
- A central spine with active frontages, providing opportunities for outdoor dining for the surrounding residential neighbourhood.
- Creating a series of spaces along the route accommodating different uses with the consideration of social infrastructure plan.
- The walk will promote healthy living with direct commute to and from main activation and transport hubs.
- The city walk will provide shade and shelter with the consideration of solar access and pedestrian movement;
- Opportunity for public art and meaningful cultural connection where city walk meets the Green Loop.

Considerations

- Through site pedestrian connections and hierarchy.
- Water quality and treatment.
- Ensure a strong Green Loop connection through the park.
- All waterplay is be less than 300mm in depth.
- Diversity and flexibility of space in accordance with the social infrastructure plan and active frontage allocation.
- Permeable surfaces primarily.

Legend

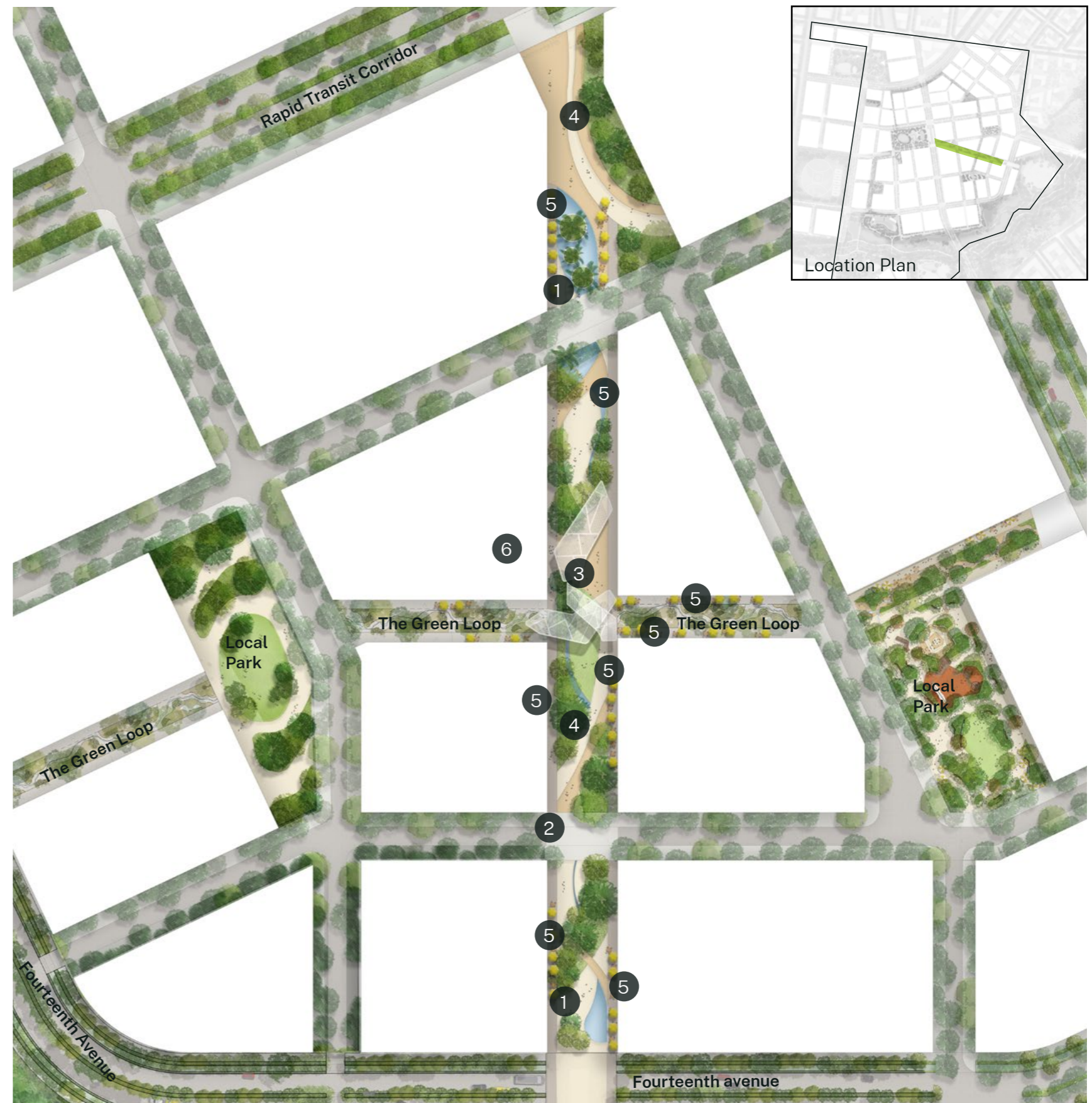
	Water Stories / Connection
	Primary pedestrian connection
	Green Loop connections



Concept plan (0.9 ha)

- 1 **Embedded Water story** – Interpretation of the creek line with integrated water play, water sensitive urban design to create visual interest and wayfinding opportunity.
- 2 **Shade** – Providing shade structure through the city walk for Central Activation at the intersection of the Green Loop.
- 3 **Gathering Space** – Create small intimate gathering spaces and provide variety of settings (sheltered, exposed, paved, and softscape).
- 4 **Pockets of Green** – Creating a parkland city experience with a continuous walk, open lawns, and plazas along the route.
- 5 **Active Frontage** – Creating distinct and diverse character through providing space for local and community business and outdoor dining, these will inhabit and spill out into the space.
- 6 **Public Cultural Centre** - At the intersection of the Green Loop containing a library, community centre or daycare facilities.

Artist impression



The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.



10.5 Green Loop

A continuous green circuit linking local parks, natural systems and pedestrian movement through the city in a setting that connect users physically, visually and culturally with Country, creating intimate moments of dwelling amongst complex biodiversity.

Connecting with Country

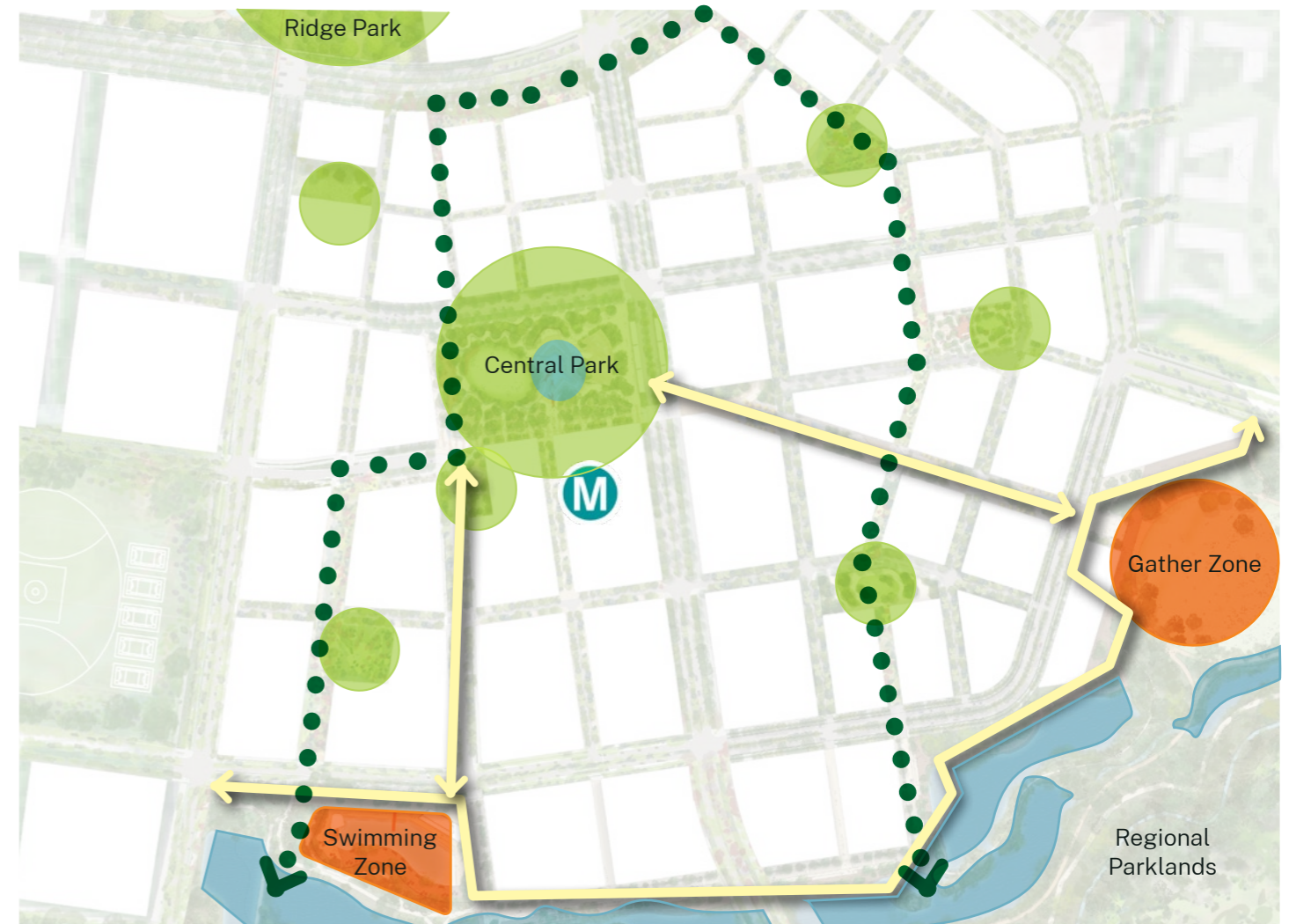
- Opportunity for nuanced spatial design that integrates endemic species with fine grain activation at building interfaces to create a meaningful expression of Country from the Ridgetop to the parklands.
- Continuous interlocking canopy with designated openings for connection with Sky Country, softening the hard edges of the built form and providing protection when walking.
- Species selection that responds to the local existing environment, encouraging new growth and ecological communities.

Design approach

- Dedicated pedestrian street that prioritises pedestrian movement at crossings.
- Cultural importance of linking the Ridge to Creek and expression of this story.
- Minimal hard edges and blurred lines between building, sidewalk and landscape interfaces across the pedestrianised Green Loop.
- The use of fine grained material, formal and other spatial responses to the pedestrianised Green Loop that articulate a human scale and avoid expanses of glass shop fronts to the lower storeys. Reflect the materials, colours, lines and experiences of Country.
- Building interfaces open onto diverse public spaces: dining, retail, performance, art, ceremony.
- Exclusively endemic planting and integrated water systems, creating ecosystems that bridge movement between larger public spaces.
- Continuous canopy to provide ecological corridor for birds.

Considerations

- Avoid constantly running water sprayers or permanent pumping systems for water.
- Avoid using straight lines and hard edges.
- When encountering service-ways, laneways and local roads the Green Loop must prioritise pedestrians with safe, level pedestrian crossings.
- The Green Loop should feature local Dharug art and stories.
- The Green Loop prioritises direct interfaces with building & public parks.



Legend

- Metro Station
- Local Parks
- Waterbodies
- Primary pedestrian connection
- Green Loop connections

Concept plan

- 1 **Local Parks** – More intimate gathering spaces for community and opportunity for Blak Markets
- 2 **City Threshold** – Green spaces to communicate a place for welcome and entry point into the city.
- 3 **Waterfront Promenade** – connects people to the waters edge with highly activated retail frontages.

Endemic and lush planting in corridors for continuous canopy and habitat.

Art and sculpture to promote local Dharug art and storytelling.

Seating nodes embedded within landscaping.

Waterscapes that reflect a care for a precious resource may be integrated subtly across the pedestrianised Green Loop.

Artist impression



The Concept Plan is indicative only and will be subject to discussions with relevant government agencies and further approvals.



10.6 Local Parks

A network of green public open space extends off the Green Loop, offering retreat amongst the built form. The parks become meeting places for social gathering, local play and Country to breathe amongst a diverse natural environment.

Connecting with Country

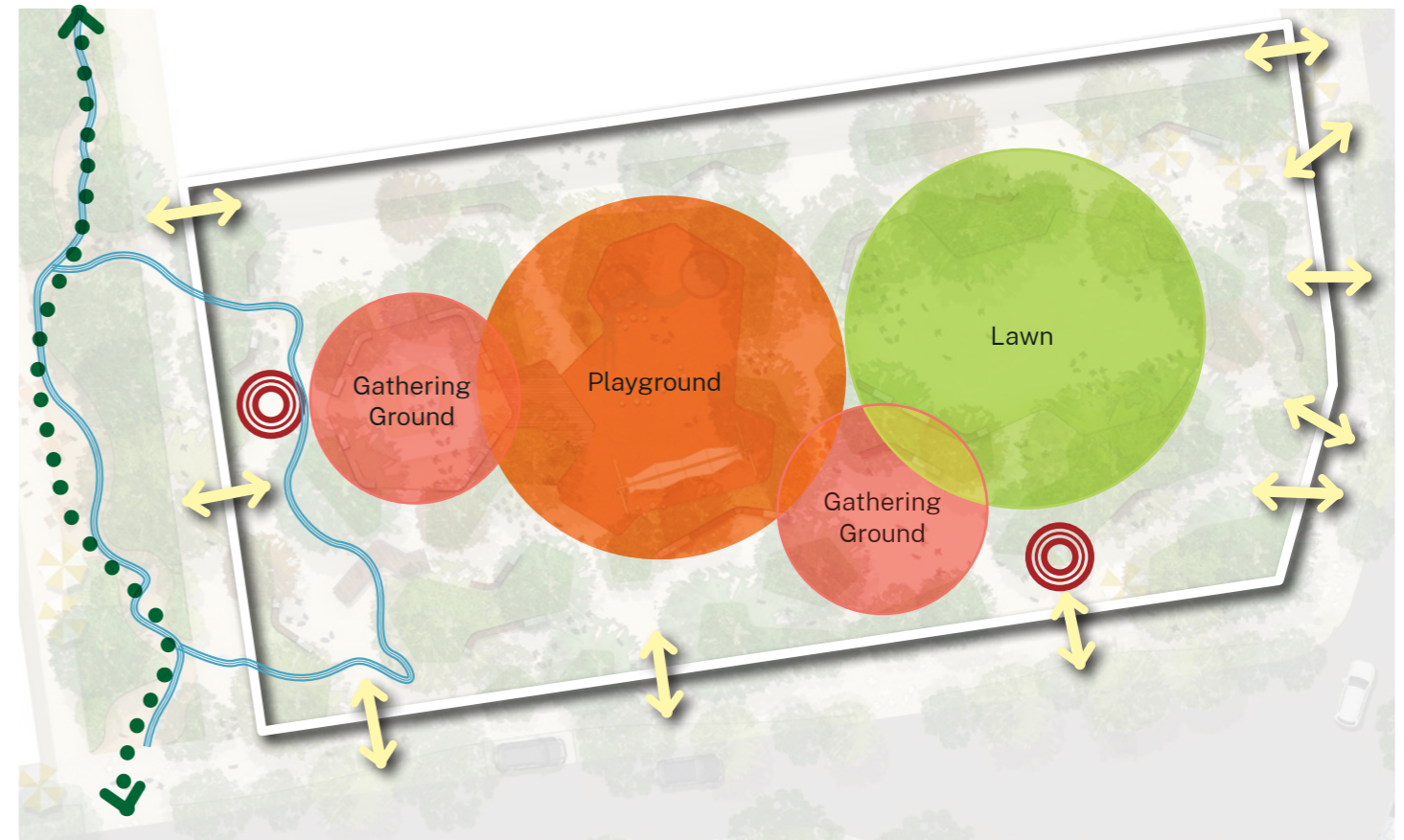
- Spatial relief from within the dense urban neighbourhood, creating openings to Sky Country.
- Yarning circle for local community gathering, cultural learning, and meaningful connection.
- A balance of diverse elements and provision of multi-functional spaces for adaptable uses and small community gatherings.

Design approach





- Creating diverse and adaptive public space for both groups and individuals for intimate interaction.
- Creating a cultural connection with Country through materiality, tree planting, flowing design geometries that are meaningfully integrated into the landscape and the greater Green Loop.
- Creating a strong indoor and outdoor relationship;
- Ensuring that the public art is both local and global creating a rich cultural story for the park. Strong sense of place enhanced by art.
- Portrays a softer, less urban palette of furniture and hardstand to express a more local feel and maximise permeability.
- Minimum Tree Canopy: 60%
- Minimum Perviousness: 48%

Considerations

- Ensure a strong Green Loop connection through the park.
- All waterplay to be less than 300mm in depth, quality and treatment managed.
- Hostile Vehicle Management through buffer planting to sides adjoining share streets
- Maximise opportunity for deep soil.
- The adjoining image shows components that may be considered within each local park.



Legend

-  Key Public Art / Welcome to Country
-  Water Stories through the city
-  Primary pedestrian connection
-  Green Loop connections

Concept plan (size varies)

- 1 **Gathering Space** — Create a series of flexible spaces for the community to engage and socially interact, allowing for local markets and community events.
- 2 **Playground** — Provide opportunities for neighbourhood play. This should be a combination of structure and wild/nature play to connect with the school precinct on the northern side.
- 3 **Yarning Circle** — A place for meaningful connection and provide opportunities to learn and care for Country. A place to talk through community issues.
- 4 **Water Play** — Promote water play and interaction, and consider water play as an opportunity to learn, touch, tell stories and guide pathways.
- 5 **Public art** — meaningfully integrated into the landscape, acknowledgement of Country, connected to the larger Green Loop and celebrate local culture.



The Concept Plan is indicative only and will be subject to discussions with relevant government agencies and further approvals.



10.7 The Parklands

A series of connected parkland spaces provide a range of diversity that accommodate both a city and parkland context. Water is the central theme, connecting users with the creek, wetlands and local vegetation communities.

Connecting with Country

- Celebrating the district’s natural character of Country through revitalising the creek and providing access to a world class parkland environment.
- Protecting water is protecting Country.
- Restoration and conservation of endemic vegetation to provide habitat for native wildlife.
- Maintain visual connections to Moore Gully and Thompsons Creek by providing access and viewing points.
- Retain and revitalise exiting wetlands and dams where possible.
- Minimum Tree Canopy: 61%
- Minimum Perviousness: 93%



- 1 City Parklands West
- 2 City Parklands East
- 3 Waterfront Promenade
- 4 Culturally sensitive sites
- 5 Major Recreation Node
- 6 Major Event Space

Note: Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.

The Concept Plan is indicative only and will be subject to a concept plan for Thompsons Creek regional park and consultations with relevant government agencies and further approvals.

10.8 City Parklands West

The City Parklands West is the major arrival point for users traveling through the City Walk West. At its heart, a swimming hole, promoting active recreation and social gathering. The space celebrates a tiered landscape, transitioning from a strong urban edge into an immersive natural environment.

Connecting with Country

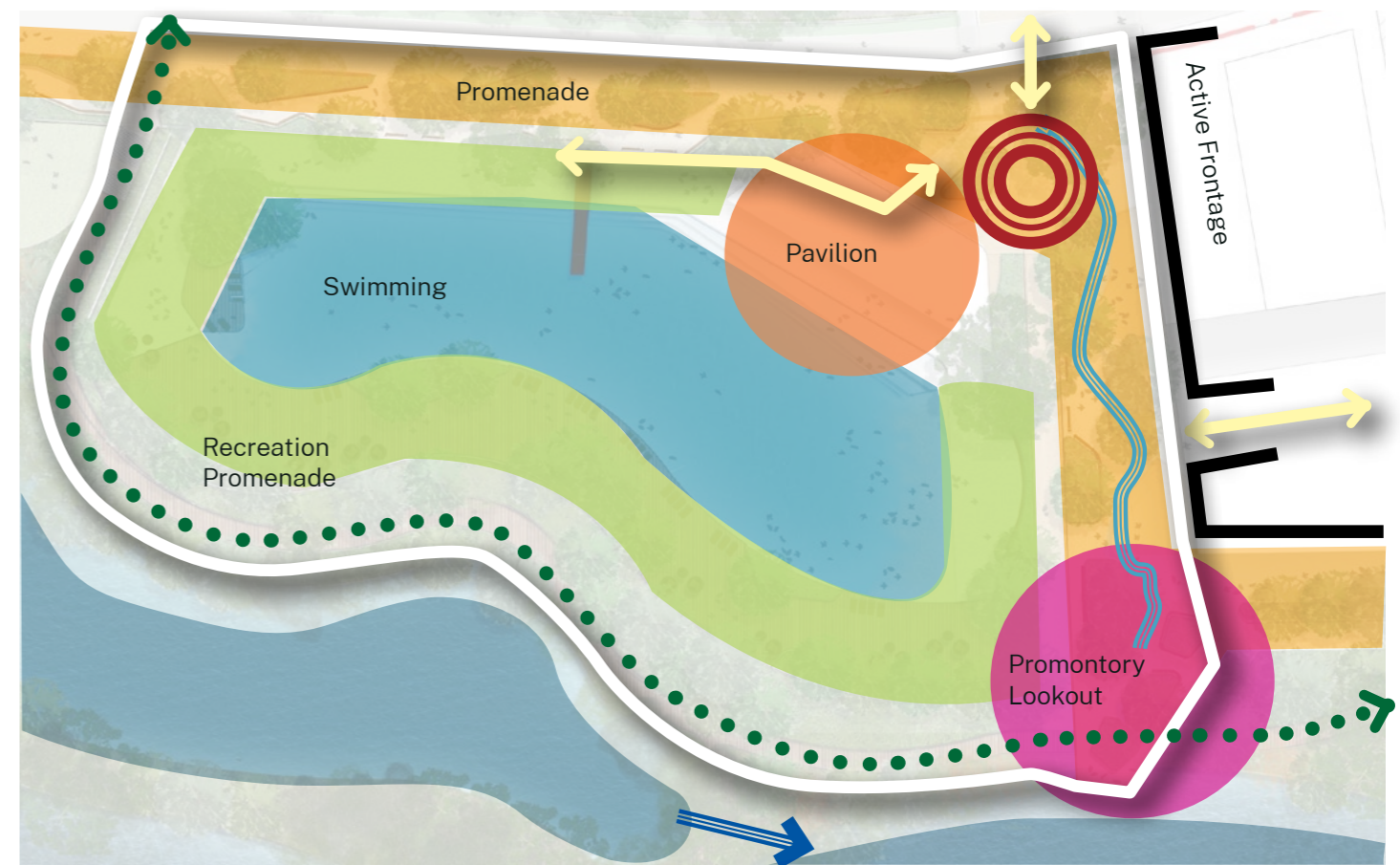
- Create a complete ecology around it with a diverse mix of endemic understorey species.
- Allow sufficient space between boardwalk and trees with cultural significance and respect for major trees.
- Enhancing natural ecological system of existing wetlands and strengthen its economic and tourism potential.

Design approach

- Cultural importance of linking the Ridge to Creek and expression of this story.
- Implement flooding and storm water management to protect the natural and built environment.
- Create the city waterfront.
- Connect with Bradfield’s nature ecosystems and ecology.
- Connect with Country through the waterstory.
- Utilise level change to create unique vistas and aid natural filtration/ run off water systems for flood mitigation and water maximisation.
- Minimum Tree Canopy: 46%
- Minimum Perviousness: 33%

Considerations

- Continuing strong green connections from the Green Loop through site.
- Water quality and treatment from Water Sensitive Urban Design (WSUD) systems and City Walk West.
- Swimmable waterbody located in the outer 50% of existing riparian zone. Altered riparian zones will result from adopting the best practice water integration approach.
- Flood extents.
- High value vegetation south side of creek.
- Sydney Water Basin constraints.



Legend

- ↔ Primary pedestrian connection
- Water-flow path
- ⋯ Green Loop connections
- ≡ Water connection
- ⊙ Welcome to Country and Entry Plaza

The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.

Concept plan (1.5 ha)

- 1 **Swimming** – opportunity at the entry to the Parklands for city cooling, major public attraction and development outside the riparian extents. A beach in Western Sydney.
- 2 **Public Pavilion** – connects to the waterbodies for opportunity to dine or showcase.
- 3 **Upper Urban Promenade** – runs around the perimeter of the space, creating a distinct urban edge with the Parklands and protecting Riparian ecologies from urban stresses. It flows from the City Walks and commercial frontages.
- 4 **Promontory Lookout** – utilises level change to create a space to observe water systems and protected ecologies within the riparian zone.
- 5 **Breakout Lawn** – provides a soft space for recreation away from the swimming development. It connects the Green Loop with the Parklands and continues it’s soft material language.
- 6 **Timber Deck** – wraps around the pool and introduces a softer material language to the Parklands interface.
- 7 **Wetland System** – utilises WSUD approaches and natural filtration from riparian ecologies to mitigate flood impacts, cool the city and provide visual attraction.

Artist impressions



Swimming hole



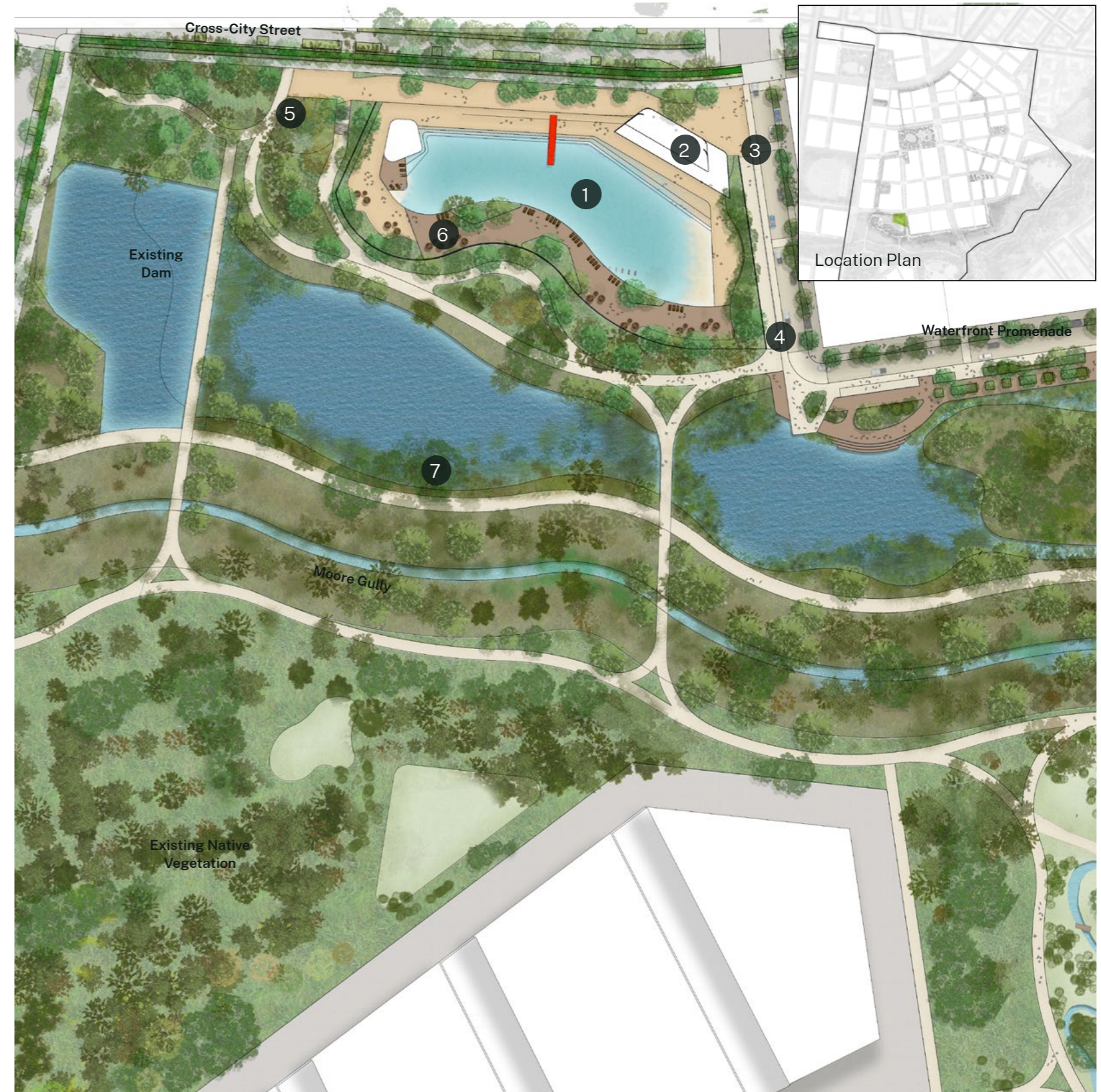
Waterfront Promenade and Green Loop walk



View from Moore Gully pavilion



Aerial view



The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.



10.9 City Parklands East

The Eastern Parklands celebrates the surrounding local ecology, working to protect and enhance the existing high valued vegetation. At its centre, it hosts a large gathering space, flexible for city scale events and outdoor activation amongst a parkland ecosystem.

Connecting with Country

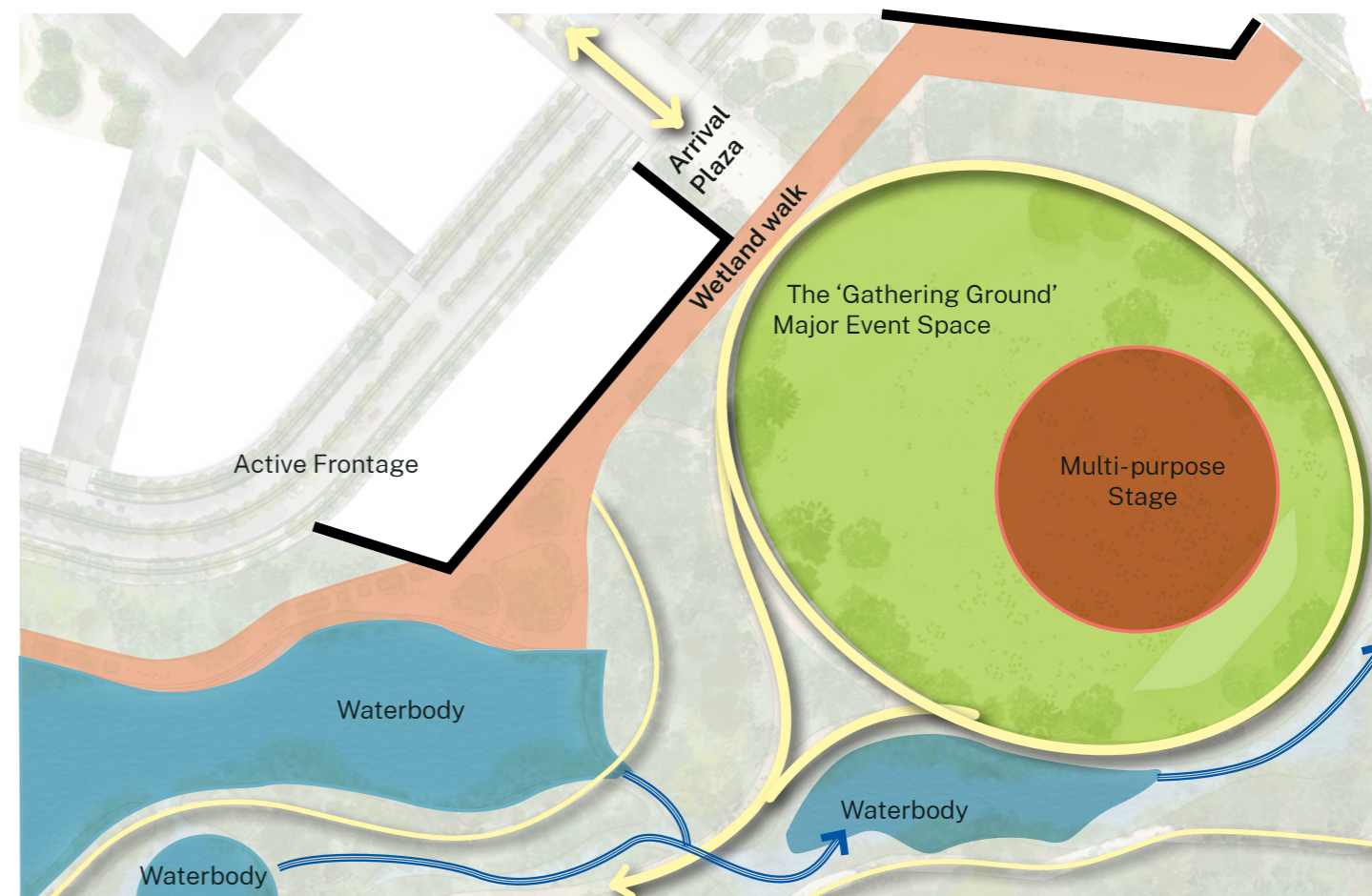
- Mixed use public spaces that are flexible for various occasions.
- Interconnectedness of public spaces amongst diversity of local ecology, people and animals.
- Connecting City Parklands East to Green Loop with dedicated pedestrian pathways.

Design approach

- Express the story of Ridge to Creek and reinforcing the cultural importance.
- A new domain for the city that is centred around culture and Country. The event space is shared with native grass meadows creating space to celebrate and immerse.
- Biodiverse palette, building off existing significant ecologies for habitat, cool cities and resilient ecosystems.
- Providing spaces that are flexible and adaptable to future needs.
- Rooms within a park to accommodate varying scales of activity and interaction.
- Minimum Tree Canopy: 51%
- Minimum Perviousness: 83%

Considerations

- Re-routing a strahler order 4 and 5 stream into South Creek.
- Areas of existing significant vegetation along South Creek to be retained and enhanced with supplementary endemic vegetation.
- Much of the open space located within the flood extents. Impacts on materiality, function and planting to be considered.



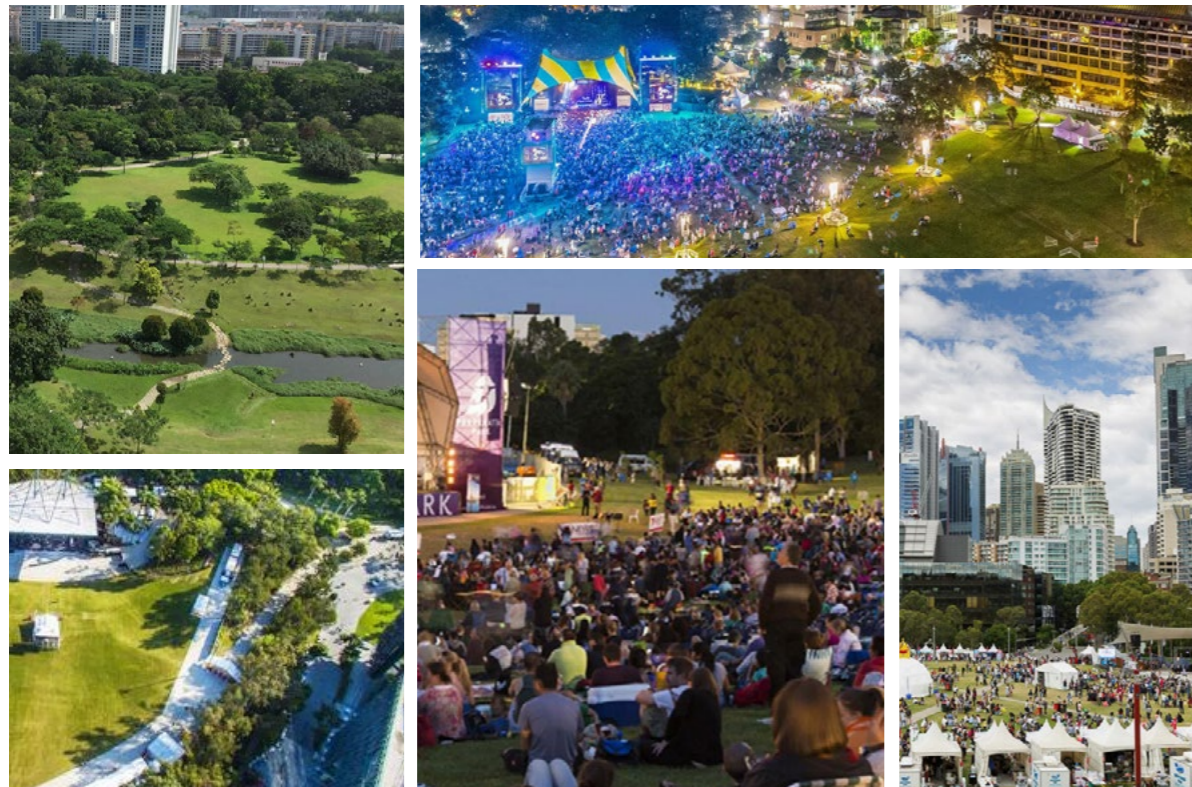
Legend

- ↔ Primary pedestrian connection
- Secondary pedestrian connections
- Water-flow Path

The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.

Concept plan (5 ha)

- 1 **The 'Gathering Ground' Major Event Space** – opening off City Walk East, a direct link to the Bradfield City Centre, has opportunity to host large events and showcase Bradfield as a parkland city. Encircled in trees, the open space hosts a diverse palette of native meadow grasses.
- 2 **Stage** – is the centrepiece of the events lawn with flexible functionality for performance and the ability to adapt to future needs.
- 3 **Wetland Walk** – an extension of Green Loop, providing opportunity to walk and wander at the border of city parkland, connecting parkland west to parkland east and providing opportunity for artwork to symbolise parkland entry/welcome.
- 4 **Multi-purpose Space** – opportunity for additional water detention, markets, temporary exhibitions and installations.
- 5 **Exploratory Walk** – meandering through riparian communities, allows an intimate interaction with the creek. It adopts a soft palette to preserve existing habitats and respond to the materials, colours and shapes of Country.
- 6 **Water Systems** – retain existing significant creeklines but interoperate higher order ones into the public domain. Potential additional detention.



The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.



10.10 Wetland Walk

The dual level promenade interfaces urban built form and natural parklands. This allows for a distinct edge that protects creekland/ gully ecologies and provides unique vantage opportunities to the riparian system. The promenade is an extension of the City Walks and commercial frontages, blurring the boundaries of inside and outside.

Connecting with Country

- Mixed use public spaces that are flexible for various occasions.
- Interconnectedness of public spaces amongst diversity of local ecology, people and animals.
- Connecting City Parklands East to Green Loop with dedicated pedestrian pathways.

Design approach

- A pedestrian focused corridor connecting users from the Bradfield City Centre to the parklands.
- The promenade maximises the sites level change, creating opportunity for active façades, seating nooks and lookouts across the parklands.
- Promotes equal access, bringing users down to the water's edge whilst still protecting the local ecologies and riparian systems.
- Merging the palettes of the built form and public domain to blur the boundaries of indoors and outdoors.
- Bridging ecologies from the city into the parklands, extending habitat into the city.

Considerations

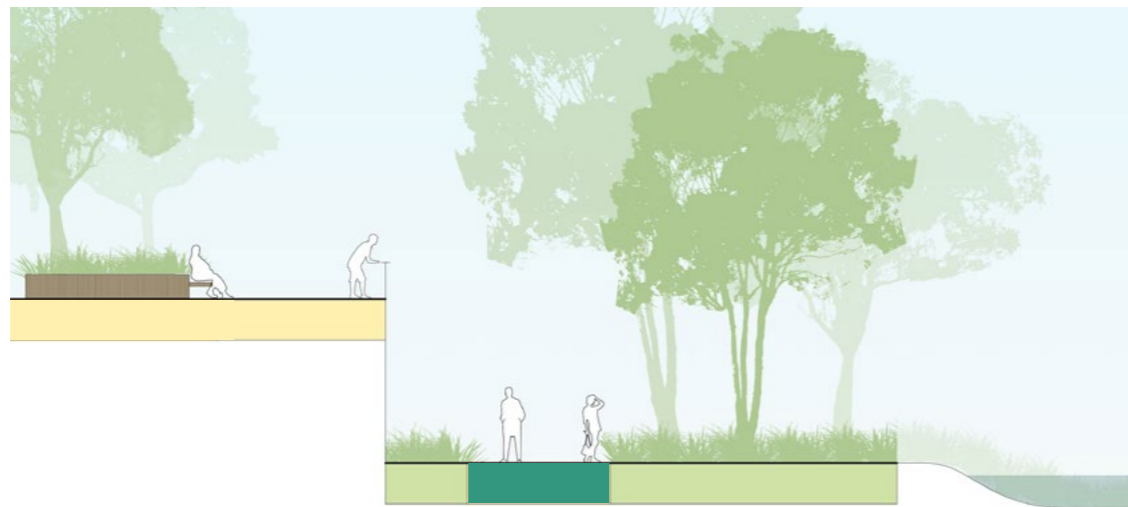
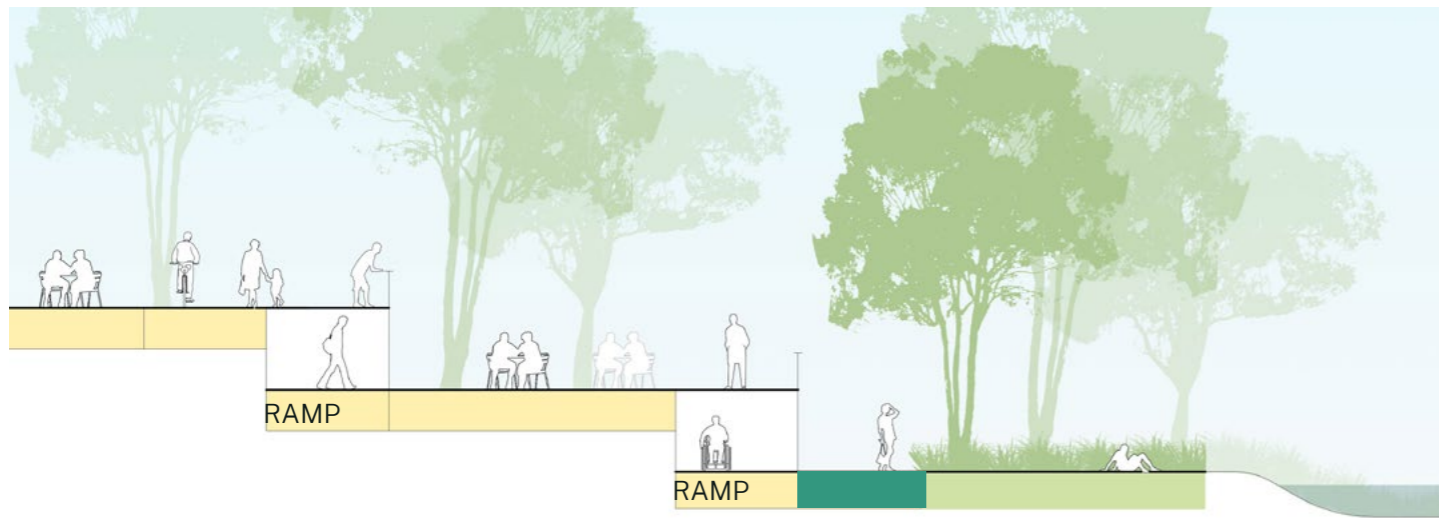
- Flood extents.
- Additional detention basins will alter riparian zones if adopting the best practice water integration approach.
- Regional Park requirements for Parklands East.
- Connections to Green Loop.
- Connections across waterways to south.



Legend

- Primary pedestrian connection
- Active frontages
- Green Loop connections
- Water connection
- Major Transit Corridor

The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.



Indicative Interfaces

The Concept Plan is indicative only and will be subject to consultation with relevant government agencies and further approvals.



Avon River Park Terraces, New Zealand. Indicative only.



View from Wetland walk. Artist's impression only.

11

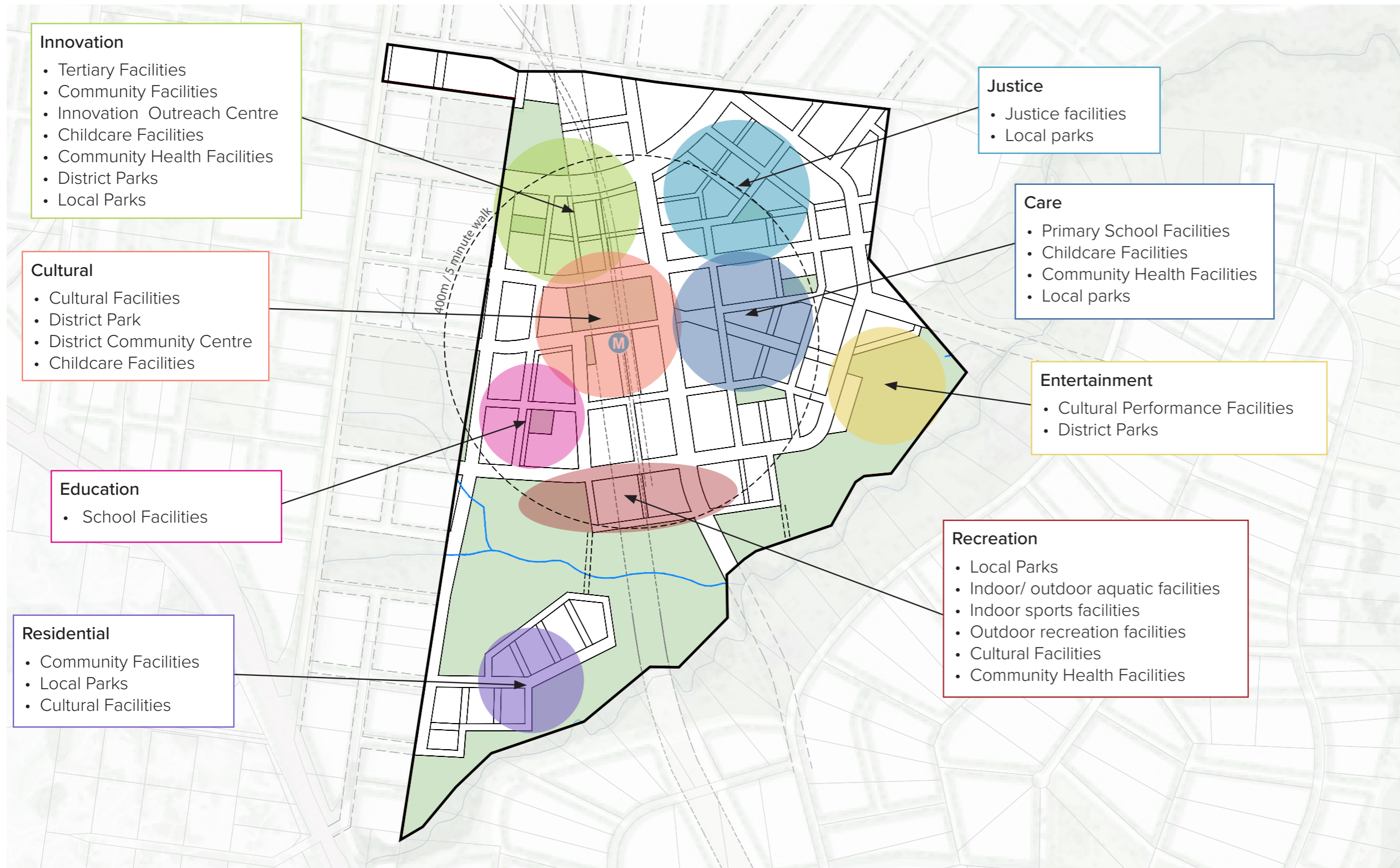
Social and cultural infrastructure

This section sets out alternative benchmark solutions of the Aerotropolis DCP Section 6.1(P01).

 **Alternative benchmark solution**

Social and cultural infrastructure is to meet the requirements detailed in the Bradfield City Centre Social Infrastructure Strategy prepared as part of the Bradfield City Centre Master Plan.

11.1 Social infrastructure indicative locations



Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

The Bradfield City Centre will be supported by appropriately sited education facilities including the provision of a new public school and a new high school in accordance with School Infrastructure NSW's 'School Site Selection and Development Guidelines' (which outline the site-based requirements for any new school site) and ongoing consultation with SINSW.

The locations and timing of educational facilities are under investigation and subject to further review by School Infrastructure NSW.

Opportunities for Joint and Shared use of school sites will be explored with local Council and SINSW to capitalise on social infrastructure investment in NSW.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.

Facility	Recommended infrastructure (by 2056)	Justification of need
Education		
Education	Public Primary School, including spaces for specialised learning	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs. Identified in the Place Based Infrastructure Compact (PIC).
	Public High School, including spaces for specialised learning	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs. Identified in the Place Based Infrastructure Compact (PIC).
	Innovation outreach centre (consider co-location with public high school)	Consultation with NSW Department of Education identified opportunity to provide an Innovation outreach centre with a focus on aerospace and aeronautics to increase the learning opportunities for the wider Greater Sydney student population.
	1 x Permanent TAFE/VET facility	Committed in the Western Sydney City Deal.
	1x Multiversity Campus/ maker space facilities collocated with compatible industry and community facilities	Committed in the Western Sydney City Deal.
Community & Culture		
Health	1 x Community health centre / IHHub	Consultation with NSW Department of Health identified the opportunity to provide community health facilities in the Aerotropolis Core after the year 2031.
	1 x Specialised Aboriginal community health facility	The Draft Western Sydney Aerotropolis Aboriginal Engagement Summary Report (GHD, 2020d) identified the need for specific health facilities for Aboriginal residents in the Aerotropolis and wider Western Parkland City.
Emergency services	1 x Justice Precinct with a co-located police station and courthouse	Required to accommodate both master plan site and wider Aerotropolis demographic needs. Identified in the Place Based Infrastructure Compact (PIC).
Community facilities	1 x Local community space	Required to accommodate master plan site demographic needs.
	1 x District community centre (co-located with the District/State satellite library)	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs. Consultation with Liverpool City Council and Create NSW indicated the aspiration for a multifunctional community centre.
Childcare	1 x Public childcare centre (min 100 places)	Required to accommodate master plan site demographic needs.
	1 x Specialised Aboriginal childcare centre	The Draft Western Sydney Aerotropolis Aboriginal Engagement Summary Report (GHD, 2020d) identified the need for specific childcare facilities for Aboriginal residents in the Aerotropolis.
	~10 x Private childcare centres (total 499 places)	Required to accommodate master plan site demographic needs.
	OSCH places provided through Public Primary School	Required to accommodate master plan site demographic needs.
	2 x Private OSCH centres (total 198 places)	Required to accommodate master plan site demographic needs.

Facility	Recommended infrastructure (by 2056)	Justification of need
Aged care	Consider appropriate planning controls to allow future development of aged care facilities. Provision of approximately 136 x Moderate to high care needs places, 163 x Low care needs places and 7 x Short term restorative care places located in close proximity to the IHHub.	Required to accommodate master plan site demographic needs. Required to accommodate master plan site demographic needs.
	Provision of approximately 68 x Community care packages delivered from the IHHub	Required to accommodate master plan site demographic needs.
Cultural facilities	1 x Local cultural facility (i.e., gallery, studio or museum)	Required to accommodate master plan site demographic needs.
	1 x Aboriginal Cultural Centre	The Draft Western Sydney Aerotropolis Aboriginal Engagement Summary Report (GHD, 2020d) identified the need for a major cultural facility to support cultural practice for Aboriginal residents in the Aerotropolis and wider Western Parkland City.
	1 x Cultural Performance Centre	Required to accommodate both master plan site demographic needs and wider Western Parkland City. Identified in the Place Based Infrastructure Compact (PIC).
Civic Spaces		
Sport and recreation facilities	2 x Playing fields (i.e., hockey and athletics)	Required to accommodate master plan site demographic needs.
	3 x Multipurpose sport courts	Required to accommodate master plan site demographic needs.
	1 x District sports field (2 x rectangles and 1 x oval)	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs.
	1 x Indoor sports facility	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs.
	1 x Indoor aquatic/swimming facility	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs.
	1 x Youth focused outdoor recreation facility	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs.
Parks and open space	Up to 8 x Local parks	Required to accommodate master plan site demographic needs.
	2 x District parks	Required to accommodate both master plan site and Aerotropolis Core precinct demographic needs.
	1 x Regional park (Moore Gully)	Required to accommodate both master plan site demographic needs and wider Western Parkland City.

Note: The tables on this spread should be read in conjunction with the Social Infrastructure Strategy prepared by GHD, August 2023 and will be subject to the relevant contributions plan and future funding.

Timing and delivery of future social infrastructure within the Bradfield City Centre is subject to additional consultation.

12

Staging and infrastructure delivery

12.1 Staging plan

Bradfield City Centre is one of the Precincts identified in the Aerotropolis Precinct Plan as part of the first stage of development of the Aerotropolis.

The staging plan diagram on this page details how Bradfield City Centre will develop over time.

With over two million square meters of floorspace, Bradfield City Centre is expected to take over 50 years to develop to its full capacity.

The first decade of development activity is focussed in Stage 1, which has access to existing roads and includes the Metro Station. Stage 1 includes key anchor tenants, key transport infrastructure and key public domain as detailed over page.

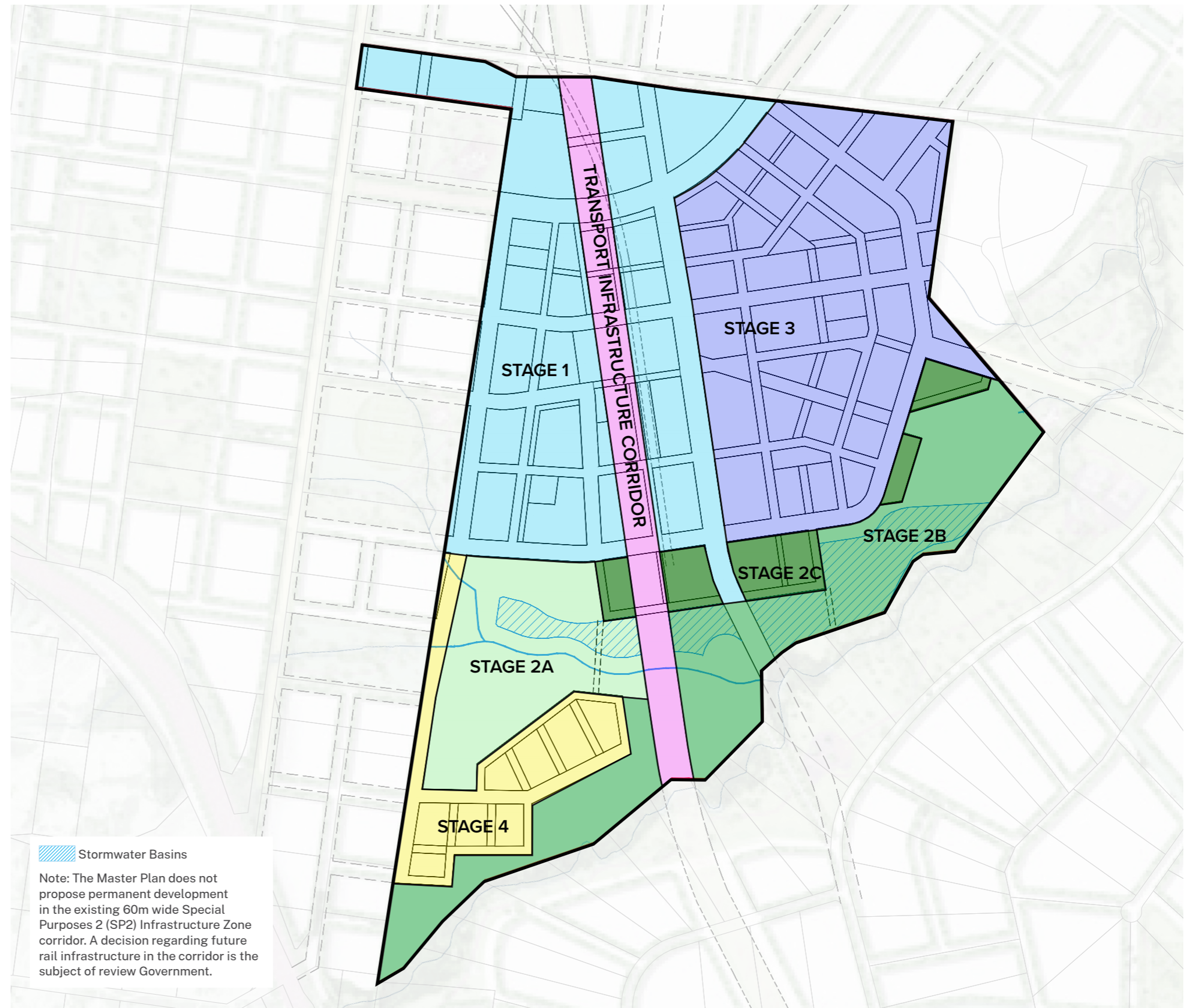
The parklands and adjoining development sites form Stage 2, and will commence shortly after Stage 1 to provide the recreation and natural amenity for the growing city.

It is envisaged that Stage 3 would comprise the eastern half of the city and Stage 4 the southern area, however the timing and sequencing of these areas is yet to be determined.

Development within the transport infrastructure corridor is subject to decisions by the NSW Government about the design and timing of future rail lines.

Note: The Master Plan does not propose permanent development in the existing 60m wide Special Purposes 2 (SP2) Infrastructure Zone corridor. A decision regarding future rail infrastructure in the corridor is the subject of review by Government.

Land to the south of Moore Gully requires further investigation and detailed design to mitigate flood impact and risk prior to submission of any development application for that land.



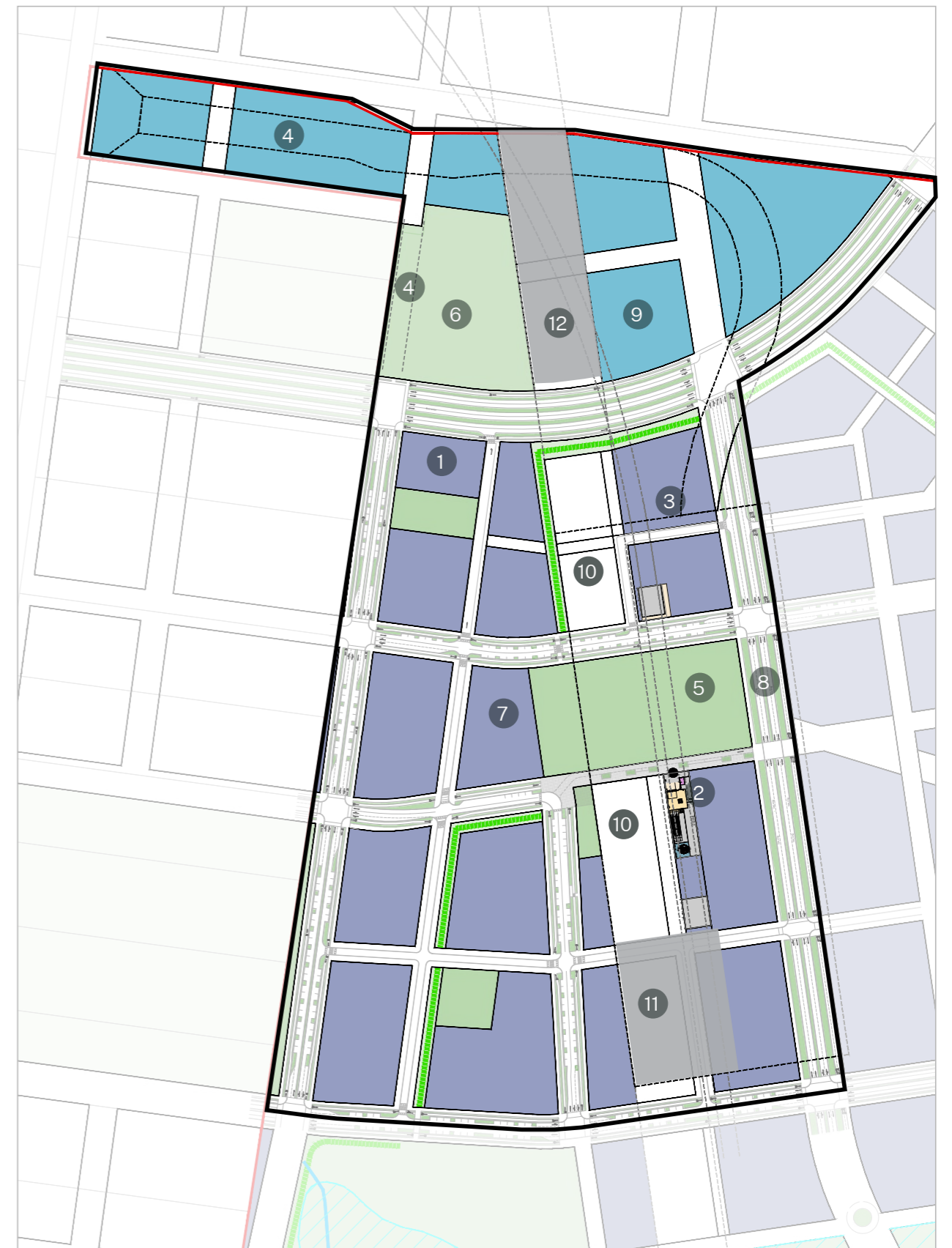
12.2 Stage 1

Stage 1 of Bradfield City Centre comprises approximately 20 hectares of land located within the central and north-west quadrant of the Master Plan.

Stage 1 includes the 2ha Central Park, 1.8ha of Ridge Park and significant transport infrastructure including the Metro Station, transit boulevard, rapid bus station, bus layover and charging facility, temporary commuter carpark, activation uses, and the key road network and streetscapes to access mixed-use and enterprise development parcels.

Legend

- ① First Building
- ② WSA Metro Station
- ③ WSA Metro Construction Zone
- ④ Temporary Access Roads
- ⑤ Central Park
- ⑥ Ridge Park
- ⑦ Civic / Cultural Facility
- ⑧ Transit Boulevard
- ⑨ Bus Layover and Charging
- ⑩ Transport Infrastructure Corridor (60m)
- ⑪ Temporary At-grade Commuter Carpark
- ⑫ Potential Temporary Parking
- Mixed-Use Development Sites
- Enterprise Development Sites
- ⋯ Green Loop
- Open Space
- Stage 1 Boundary



SCALE 1:3000



Bradfield City Centre Master Plan – Variations to the Aerotropolis DCP

The Bradfield City Centre Master Plan forms part of the Aerotropolis DCP and provides a place-based vision, objectives, performance outcomes and benchmark solutions and to guide future development in the Bradfield City Centre. This includes alternative benchmark solutions and additional performance outcomes and benchmark solutions to those in the wider Aerotropolis DCP.

The schedule below details where the Aerotropolis DCP benchmark solutions have been varied or replaced by alternative benchmark solutions.

Additional performance outcomes and benchmark solutions are also proposed as part of the Master Plan including in relation to the following:

- Master Planning
- Land use character
- Height of buildings
- Floor space distribution
- Street activation
- Street wall height
- Building materiality
- Affordable housing
- Public Art
- Urban Heat Island Effect
- Passive heating and cooling
- Wind impacts
- Public domain and public open space.

Aerotropolis DCP	Master Plan Variations
Section 2 General Controls	
2.3 Stormwater, Water Sensitive Urban Design and Integrated Water Management	See subsections below
2.3.1 Waterway Health and Riparian Corridors	<ul style="list-style-type: none"> • Benchmark solutions relating to Strahler Order 1 watercourses at Section 2.3.1(PO1)(1) are replaced by Section 8.2 of the Master Plan. • Other controls in this section of the Aerotropolis DCP continue to apply.
2.3.2 Stormwater Management and Water Sensitive Urban Design	<ul style="list-style-type: none"> • Benchmark solutions for perviousness in Section 2.3.2(PO8) are replaced by Section 8.2 of the Master Plan. • Other controls in this section of the Aerotropolis DCP continue to apply.
2.4 Vegetation and Biodiversity	<ul style="list-style-type: none"> • Benchmark solutions for canopy cover and deep soil targets at Section 2.4.1(PO1) are replaced with Section 8.1 of the Master Plan. • Other controls in this section of the Aerotropolis DCP continue to apply.

Aerotropolis DCP	Master Plan Variations
2.6 Road design for Arterial and Sub-Arterial Roads	<ul style="list-style-type: none"> The arterial and sub-arterial road cross sections referenced in 2.6(PO1) are replaced by the cross sections at Section 9 in the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
3.0 Development For Enterprise and Industry and Agribusiness	
3.1 Local Road Network and Design	<ul style="list-style-type: none"> The local road cross sections referenced in 3.1.1(PO1) are replaced by the cross sections in Section 9 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
3.3 Built form	See subsections below
3.3.2 Building Setbacks	<ul style="list-style-type: none"> The street setbacks referenced in 3.3.2 (PO1) are replaced by the street setbacks at Section 7.4 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
3.3.3 Landscape Setbacks	<ul style="list-style-type: none"> The street setbacks referenced in 3.3.3 (PO1) are replaced by the street setbacks at Section 7.4 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
4. Non-Residential Development In Centres	
4.1 Road Network and Design	<ul style="list-style-type: none"> The local road cross sections referenced in 4.1.1(PO1) are replaced by the cross sections at Section 9 in the Master Plan.
4.2 Built Form	See subsections below.
4.2.2 Amenity and Sustainability	<ul style="list-style-type: none"> The benchmark solution for gross building footprint at Section 4.2.2 (PO2) is replaced with Section 7.7 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.

Aerotropolis DCP	Master Plan Variations
4.2.3 Building Setbacks and Separation	<ul style="list-style-type: none"> The street setbacks referenced in 4.2.3(PO1) are replaced by the street setbacks at Section 7.4 of the Master Plan. The solar access benchmark solutions referenced in 4.2.3(PO2) are replaced by the solar access requirements of Section 7.8 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
5. Residential Development	
5.1 Road Network and Design	<ul style="list-style-type: none"> The local road cross sections referenced in 5.1.1(PO1) are replaced by the cross sections in Section 9 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
5.2 Built Form	See subsections below
5.2.2 Amenity and Sustainability	<ul style="list-style-type: none"> The benchmark solution for gross building footprint at Section 5.2.2(PO2) is replaced with Section 7.7 of the Master Plan. Other controls in this section of the Aerotropolis DCP continue to apply.
5.2.3 Building Setbacks	<ul style="list-style-type: none"> The front / street setbacks referenced in 5.2.3(PO1) are replaced by the street setbacks at Section 7.4 of the Master Plan. Residential flat buildings and shop top housing development is to be guided by the guidelines and principles of State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development and the Apartment Design Guide. Other controls in this section of the Aerotropolis DCP continue to apply.
6. Certain Land Uses	
6.1 Social and Cultural Infrastructure	<ul style="list-style-type: none"> The benchmark solutions of Section 6.1(PO1) are replaced with Section 11 of the Master Plan.

Bradfield Development Authority

50 Belmore St,
Penrith NSW 2750

T: 1800 312 999

E: hello@wpca.sydney

W: nsw.gov.au/bradfield-development-authority

