

**DRAFT** Arden  
**STRUCTURE PLAN**  
JUNE 2020



## Aboriginal acknowledgement

Before European settlement in 1835, Aboriginal people lived on the land now called Melbourne for tens of thousands of years.

We acknowledge Aboriginal people as Australia's first peoples and as the Traditional Owners and custodians of the land and water on which we rely. We recognise and value the ongoing contribution of Aboriginal people and communities to Victoria and how this enriches us. We embrace the spirit of reconciliation, working towards the equality of outcomes and ensuring an equal voice.



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The *Arden Structure Plan* has been developed by the Victorian Planning Authority (VPA) and the City of Melbourne in collaboration with the Department of Environment, Land, Water and Planning; the Department of Jobs, Precincts and Regions; Development Victoria; Rail Projects Victoria and other Victorian Government departments and agencies.

Any projections are based on reasonable assumptions at the time of publication but should not be relied upon without first seeking appropriate expert advice. Although every effort has been made to ensure the information in this document is factually correct at the time of publication, the VPA does not warrant the accuracy, completeness or relevance of the information. Any person using or relying on this document does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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**Making the most of its unique sense of place and local characteristics, Arden will become a new destination for Melbourne.**

**Its renewal will be pivotal to the growth of Victoria's knowledge economy and its continued success as Australia's top performing economy.**

*Arden will be a new destination for Melbourne, setting the standard for urban renewal. It will contribute to a future Melbourne that is not only the world's most liveable city, but also one of the most forward-looking.*

*With its rapid rail connections to the Parkville National Employment and Innovation Cluster, the Central Business District and Melbourne's western suburbs, Arden is ideally placed to be an international innovation and technology precinct.*

*This new employment hub will be pivotal to the growth of Victoria's knowledge economy and advancing Melbourne's strengths as a progressive, innovative and connected local and global city.*

*The precinct will have its own civic heart and character. It will remain connected to its Aboriginal and industrial heritage as it changes to support a diverse resident and worker population. It will become a new neighbourhood of Melbourne with quality and affordable housing, a thriving network of open spaces, active transport links, and adaptable community facilities, schools and workspaces.*

**It will also assist in advancing Melbourne's strengths as a progressive, innovative and connected local and global city.**

**To achieve this, Arden will develop into an innovation precinct with a focus on digital technology, life sciences, health and education at its core.**

*Arden will be at the forefront of sustainable development, embracing new ways to live, learn, work and travel in an energy-efficient district. Water will be safely managed to become a visible feature in the landscape, while green spaces, trees and water will help the precinct become a cooler, greener version of the city.*

*The Moonee Ponds Creek corridor will be revitalised as a new green spine for Melbourne. It will be a celebrated waterway with a valued environmental and cultural heritage, serving recreational, biodiversity habitat and active transport functions. The creek corridor will be an essential link for Arden and neighbouring urban renewal precincts.*

*Partnerships with all levels of government, the community and the private sector will deliver the eight key directions that support the vision for Arden.*

*– Arden Vision, 2018.*



Figure 1 Artist's impression of the future Arden precinct. Indicative only for illustrative purposes.

## A great place

Arden will evolve as a thriving inner-city neighbourhood within Melbourne's many different neighbourhoods. It will showcase quality and affordable housing, a thriving network of open spaces, active transport links, and adaptable community facilities, schools and workspaces.

Arden's cultural and industrial history is still visible in the unique character and heritage of notable landmarks and uses including the North and West Melbourne Milling Precinct, Mulcahy's Hotel and the North Melbourne Recreation Centre.

Wide tree-lined streets that date from its time as a main route for travellers to the 19th century goldfields of Ballarat and Bendigo are still evident, as are the railway lines and roads, industrial buildings and open spaces.

Arden's natural and built form will provide the context for future development of the precinct and these existing conditions form the base from which the draft *Arden Structure Plan* has been created.

Arden will have its own civic heart and character. It will remain connected to its Aboriginal and industrial heritage as it changes to support a diverse resident and worker population.

Water will be safely managed to become a visible feature in the landscape, while green spaces and trees will help the precinct become a cooler, greener city landscape.

The Moonee Ponds Creek corridor will be revitalised as a new green spine for Melbourne. It will be a celebrated waterway with a valued environmental and cultural heritage, serving recreational, biodiversity habitat and active transport functions. The creek corridor will be an essential link for Arden and neighbouring urban renewal precincts.

Planning will leverage government landholdings and public infrastructure investment to transform the precinct.

## A new innovation precinct

Large government land ownership within the precinct is unique. It gives the precinct potential to develop into a technology innovation hub and life sciences centre to complement Australia's pre-eminent biomedical cluster in Parkville.

Innovation precincts facilitate the creation and commercialisation of new ideas and support metropolitan economies by growing jobs in ways that leverage their distinct economic attributes.

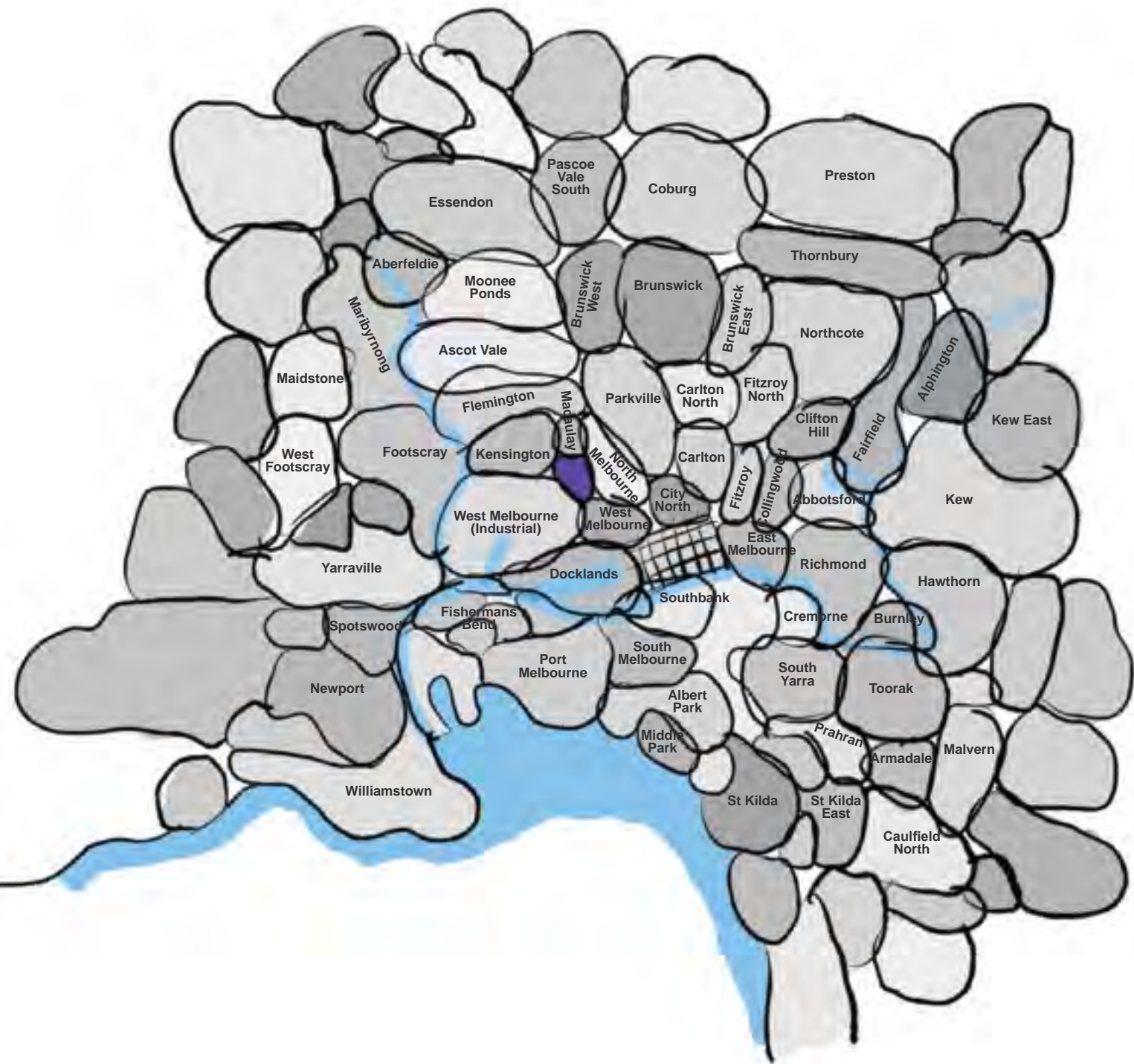
Arden's development as an innovation precinct will unlock opportunities for greater economic output, leveraging capabilities and investment in Victoria's high growth knowledge-based industries.

The precinct's shift from an industrial to knowledge-based economy will encourage clustering together of small and large organisations, with a focus on catalysing and enabling growth in the digital technologies, life sciences, health and education sectors.

Large enterprises will be attracted to the area by its advantageous location and variety of development opportunities and building types. Smaller companies and creative ventures will be supported by world leading institutions and will help attract workers, residents and visitors to the precinct.

As Arden evolves to support knowledge industry innovation, it has the potential to provide spaces for co-working and collaboration, affordable shared research infrastructure (including labs and technical equipment), small-footprint advanced manufacturing plants, clinics for medical trials, multi-purpose education facilities and events spaces, makers spaces and studios, short term accommodation for visiting experts and students, and places to showcase Melbourne's innovation outputs to the world.

This core infrastructure will be supported with enabling spaces that promote informal and formal interaction between industries, an innovatively designed public realm that encourages collaboration and excellent physical and digital connections to other innovation precincts.



**Figure 2** Arden (in purple) is an evolving and distinct neighbourhood within Melbourne's many different neighbourhoods.

## Unlocking Arden’s potential

This world-class innovation and technology precinct will be catalysed by the new Arden train station scheduled to open in 2025. The station will connect the digital technologies, life sciences, health and education sectors in Arden with Victoria’s growing knowledge economy.

Arden will be an exemplar mixed-use urban renewal precinct at the forefront of sustainable and inclusive development with quality urban realm, a thriving network of open spaces and community facilities.

Inclusive growth will occur by providing affordable housing options and creating educational, employment and other opportunities for low-income residents of the city.

Arden aspires to accommodate approximately 34,000 jobs and around 15,000 residents by 2051.

.....  
An arts, cultural and community hub overlooking the park. This hub will share and celebrate Aboriginal history, culture and values.

.....  
A major health or institutional use to be established in Arden Central providing an economic anchor for the precinct to build upon and thrive; creating jobs, providing high quality facilities and spaces and attracting innovative businesses.

.....  
Fogarty Street is extended to create a north-south civic green spine that brings new and existing communities together and into Arden’s civic heart. The street will have safe and comfortable spaces for people walking and riding bikes and improve connections to public transport.

.....  
Varied heights and density of development in Arden. Heights and densities will reduce around the Arden Central open spaces to ensure they are not overshadowed and are high amenity gathering spaces at the heart of the inner city neighbourhood. The block structure will be flexible to allow a variety of building types to develop while ensuring pedestrian connectivity and great streets for people.

.....  
A proposed government primary school in Arden Central with other community uses such as maternal child health facilities, indoor recreation spaces, open space and public transport.



## Plan 1 Highlights of the draft Arden Structure Plan



Integrated stormwater management open space in Arden North to celebrate water in the landscape and provide the community with an informal recreation space, while also serving drainage, heritage and biodiversity functions.

A new high street along Barwise Street will provide a community meeting place, amenity and services to new community residents and workers.

The commercial and civic heart around the new Arden Station will create places to gather and meet.

Queensberry Street extends into the heart of the precinct to create direct walking and cycling links through North Melbourne to Parkville.

The Arden Central open spaces will be surrounded by well-designed active uses, provide space for events and places for people to rest, meet and play.

Launens Street will be upgraded into a tree-lined, pedestrian focused street and potential future high capacity public transport capable corridor.

## Delivering the vision

The draft structure plan is organised by the following chapters to reflect the key directions for Arden’s renewal established by the Arden Vision. Each chapter contains objectives and strategies to guide Arden’s renewal.

### Introduction

- Arden’s context
- Metro Tunnel Project
- Arden’s sub-precincts

### Transforming Arden

- Innovation
- Land use
- Embedding cultural values

### Designing a distinctive place

- Spatial structure
- Built form
- Design excellence

### Embedding sustainable change

- Reaching zero carbon
- Circular economy
- Managing heat

### Prioritising active transport

- Walking and cycling
- Public transport
- Parking

### Celebrating water

- Managing flooding
- Urban water cycle

### Creating diverse open spaces

- Open space network
- Open space design

### Accommodating diverse communities

- Affordable housing

### Investing in community infrastructure

- Community hubs
- Schools

### Delivering Arden

- Governance
- Development staging
- Early activation
- Infrastructure funding and delivery

## The objectives

### Transforming Arden

#### Objective 1

Create the conditions that attract and retain global talent in the life-sciences, education, health and digital technology sectors and foster interaction, collaboration and knowledge sharing between enterprise, government and education. 28

#### Objective 2

Deliver a highly liveable, mixed use precinct of Melbourne that aspires to accommodate approximately 34,000 jobs and around 15,000 residents with innovation at its heart. 30

#### Objective 3

Celebrate, protect and interpret Aboriginal cultural values and heritage in the planning, design and curation of Arden. 32

### Designing a distinctive place

#### Objective 4

Deliver a new urban structure for Arden that incorporates a high-quality network of connected streets and open spaces that help support a varied and walkable block structure. 38

#### Objective 5

Introduce density and built form controls that help transform Arden into a world-leading urban renewal precinct and innovation precinct while celebrating the precinct’s existing assets and surrounding neighbourhoods. 42

#### Objective 6

Recognise and celebrate the valued built form heritage and character of Arden. 50

#### Objective 7

Encourage buildings that remain adaptable as uses change over time. 52

#### Objective 8

Ensure design excellence is achieved for key strategic sites within Arden. 53

### Embedding sustainable change

#### Objective 9

Establish strong environmental governance in Arden that provides certainty, accountability and transparency to achieve the precinct’s net-zero carbon target. 56

#### Objective 10

Facilitate the delivery of precinct-scale infrastructure and centralised facilities that makes achieving building scale targets easier. 56

#### Objective 11

Embed sustainable living and building practices in planning and built form controls. 58

### **Objective 12**

Measure the performance of the precinct, its buildings and its occupants and be able to adapt to changes in climate, lifestyle and technology in the future. 58

### **Objective 13**

Minimise waste production and water use, optimise reuse and recycling and encourage a circular economy in Arden. 59

### **Objective 14**

Mitigate the urban heat island effect in the design and delivery of the public realm and private developments accordant with desired urban greening outcomes and standards. 60

## **Prioritising active transport**

### **Objective 15**

Provide space for high capacity public transport capable options connecting Arden into the expanding central city. 64

### **Objective 16**

Provide safe, direct and connected protected cycling routes through and to the precinct. 64

### **Objective 17**

New and existing streets will be pedestrian-friendly and provide comfortable, green links between open spaces and public transport routes and enhance the quality of the public realm. 66

### **Objective 18**

Minimise the impact of car parking and associated vehicular movements through Arden. 68

## **Celebrating water**

### **Objective 19**

Safely manage the risk of flooding to future development of Arden through innovative and creative flood management solutions in the natural landscape and built environment. 74

### **Objective 20**

Establish an alternative water system across Arden that provides access to high-quality alternative water to be used in buildings and to irrigate open spaces. 80

## **Creating diverse open spaces**

### **Objective 21**

Provide generous, well-designed and accessible open spaces that are diverse and flexible to meet the needs of Arden's evolving community and visitors to the precinct. 84

### **Objective 22**

Establish design excellence and design objectives for streets, open spaces and development interfaces to ensure the public realm works as a seamless, integrated and continuous space for people. 88

## **Accommodating diverse communities**

### **Objective 23**

Facilitate inclusive, well-designed, sustainable and accessible housing, with at least six per cent of all new housing in the precinct being affordable for very low to moderate income households and delivered as social and affordable housing or shared equity. 94

## **Investing in community infrastructure**

### **Objective 24**

Ensure timely delivery of high-quality, accessible and integrated community infrastructure to meet the needs of existing and future residents, workers and visitors. 98

### **Objective 25**

Deliver educational facilities to meet the anticipated demographic demand. 101

## **Delivering Arden**

### **Objective 26**

Ensure coordinated and collaborative staging of development on government owned land around the new Arden Station to effectively respond to existing conditions and ongoing business requirements and create a safe and vibrant place upon opening of the station. 104

### **Objective 27**

Ensure that early activation and place shaping activities are delivered alongside early precinct development and in readiness for the Arden station opening, to create a distinct sense of place and a vibrant and interesting early precinct experience and ensure the long term success of the precinct. 105

### **Objective 28**

Ensure that new development responds to surrounding conditions including the transmission pressure gas pipelines and is not unduly impacted by noise, vibration and electromagnetic impacts from the adjacent railway corridor, elevated roadway and Metro Tunnel Project. 105

### **Objective 29**

Make Arden adaptable to change while managing the impacts of existing uses that need to transition from the precinct. 106

### **Objective 30**

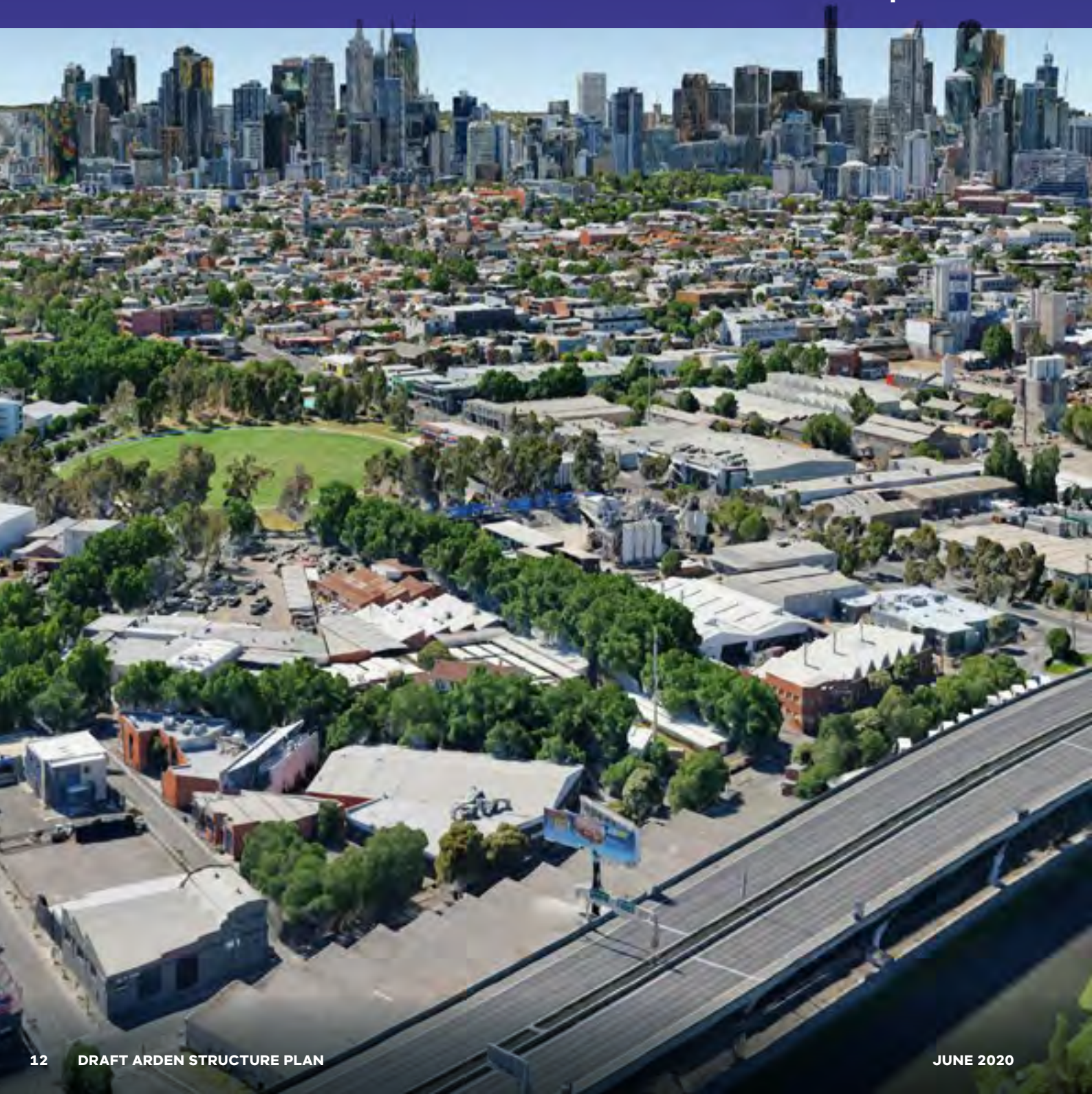
Provide critical infrastructure and utility services in a coordinated manner to support the planned development. 107

### **Objective 31**

Provide for the timely and coordinated funding and delivery of public open space, transport upgrades and community and social infrastructure to meet the needs of the new community. 108

# 1 Introducing Arden

**Arden's context**  
**Metro Tunnel Project**  
**Sub-precincts**



## What is this document?

The draft *Arden Structure Plan* (the draft plan) translates the vision for Arden's future into objectives and strategies to guide how the precinct should develop in the short-, medium- and long-term along economic, physical and social dimensions. This document supersedes the *Arden–Macaulay Structure Plan* (2012).

The draft plan responds to the eight key directions within the *Arden Vision* (2018). The **objectives** identify the key moves that will be made to achieve the vision for the precinct. The **strategies** outline how each objective will be achieved.

Planning for Arden is being undertaken jointly by the Victorian Planning Authority and City of Melbourne. These agencies are now seeking community feedback on key structure plan deliverables from the current and future residents, businesses, landowners, workers and visitors of Arden to input into the future of the precinct.

The engagement process will enable the Arden community to influence critical components of the draft structure plan, including function of open spaces, neighbourhood character, community services, local transport amenities, sustainability initiatives. This engagement process will help shape the final *Arden Structure Plan* so it reflects the interests and needs of the community and stakeholders when it is prepared for statutory exhibition.

The Arden precinct adjoins the neighbourhoods of Macaulay and West Melbourne. The *West Melbourne Structure Plan* has been adopted by Melbourne City Council. The interface between these three areas will be resolved as part of finalising the *Arden Structure Plan* and its planning controls.

A separate structure plan refresh is also being developed for the Macaulay urban renewal area by the City of Melbourne. Arden and Macaulay each have a distinct role and character, however the plans are being developed to be complementary and co-ordinated in their delivery.

Numerous technical studies inform the plan for Arden and will be available to view during the formal statutory exhibition process when the final plan is considered as an amendment to the planning scheme.

## Who delivers innovation precincts?

The draft plan is just the beginning. Successful innovation precincts evolve as a partnership between government, institutions, the private sector and many others.

Some of the key players involved include:

- State government and state government agencies
- Mayors and local government
- Major real estate developers and land owners
- Managers of research campuses
- Anchor companies
- Advanced research institutions
- Advanced medical campuses
- Philanthropic investors
- Incubators, accelerators, and other economic cultivators
- Social networking programmers.

## Where is Arden?

Arden is a 50 hectare urban renewal precinct in the inner urban area of Melbourne. It is less than 2 km from the central city and adjacent to the established residential areas of North Melbourne, Kensington and West Melbourne and immediately south of the evolving, mixed use Macaulay urban renewal area.

At Arden's core will be a world-class innovation and technology district catalysed by the new Arden Station – scheduled to open in 2025 as part of the Metro Tunnel Project. Arden's exceptional connectivity is central to its value proposition – just 25 minutes from Melbourne's airport, 4.5 km from the Port of Melbourne and 2 km from the central city.

The Parkville biomedical precinct and the Melbourne Innovation District are located 1 km east of Arden and support over 40,000 jobs. The Metro Tunnel Project will connect Arden and Parkville via a two minute train ride, with Queensberry Street and Arden Street providing safe and direct walking and cycling links.

Arden is one of several precincts at various stages of planning, development or completion within inner metropolitan Melbourne. The Victorian Government has identified Arden as a Priority Precinct, making it part of a network of precincts that will work together to boost innovation, productivity and build on Victoria's global record of commercial success.

Arden will play a pivotal role in linking National Employment and Innovation Clusters, from Sunshine, through Parkville and the central business district, to Monash and Dandenong.

## Accessing Arden

Arden is a well-connected piece of the city, with walking and cycling access to adjacent neighbourhoods, the central city and Parkville.

The precinct has excellent rail connections with the new Arden Station at the heart of the precinct to be delivered as part of the Metro Tunnel Project, Macaulay Station to the north and North Melbourne Station to the south.

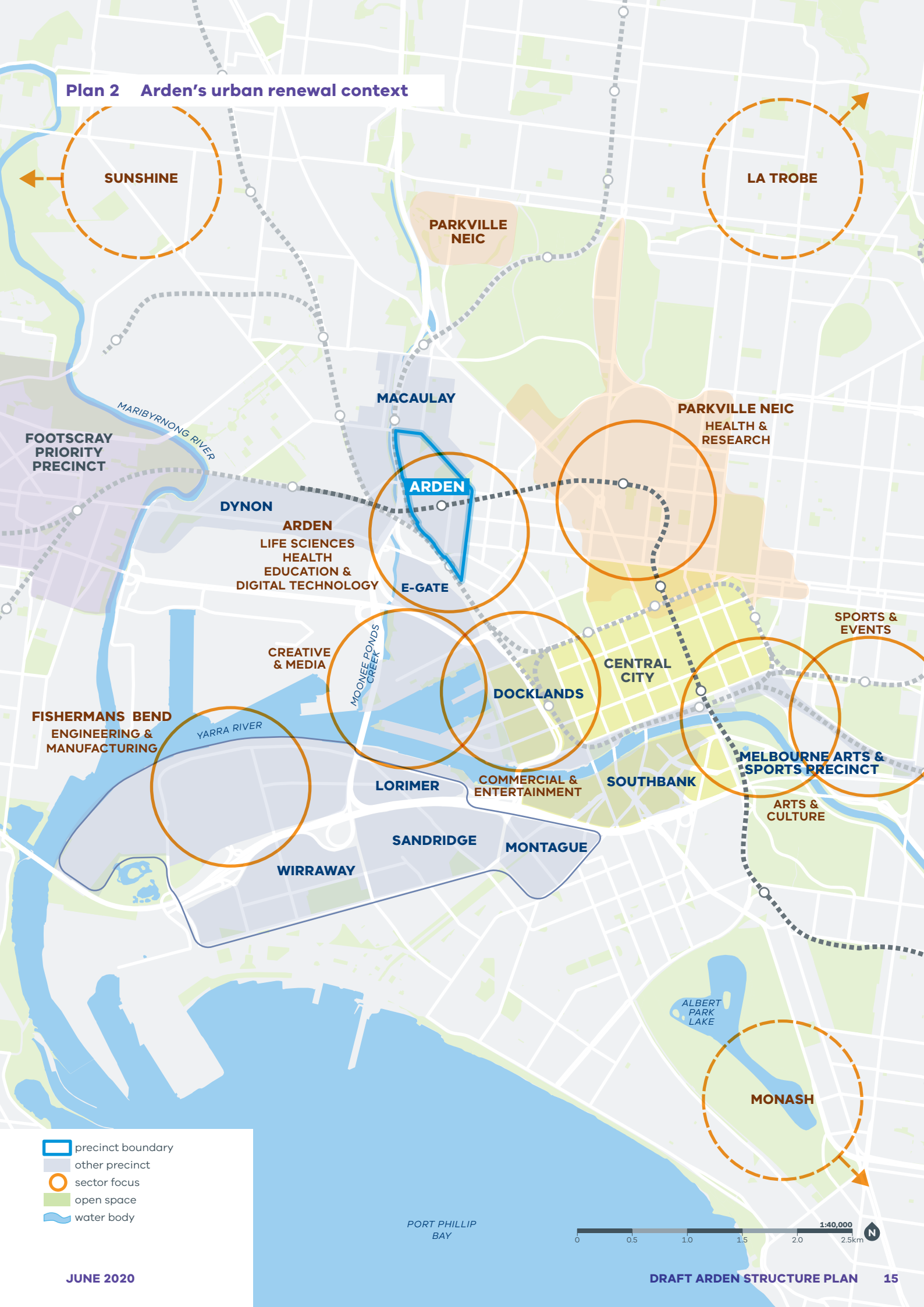
The Moonee Ponds Creek corridor and CityLink elevated roadway create a barrier along the western edge of Arden, with three access points to the west of the precinct at Macaulay Street, Arden Street and Dynon Road.






Streets in Arden are generally wide, with on-street parking and varied supply of bike lanes. Arden Street is the primary east–west connector between North Melbourne and Kensington. Macaulay Road and Dryburgh Street are the primary north–south routes. Several streets within Arden are designated for heavy vehicles such as B-double trucks to service existing, local industrial uses.

The current walking and cycling experiences through Arden are poor, due to large block sizes, relatively high vehicle speeds and poor quality footpaths and crossings. The Capital City Trail provides dedicated access for cyclists and pedestrians to the CBD and Docklands along Moonee Ponds Creek.

Five bus routes service the precinct and the Route 57 tram service (Maribyrnong–Flinders Street Station) operates along Abbotsford Street 200 metres east of Arden. The precinct is near a direct link to Melbourne Airport via CityLink and potentially through the future Melbourne Airport Rail Link.

**Plan 2 Arden's urban renewal context**



-  precinct boundary
-  other precinct
-  sector focus
-  open space
-  water body

PORT PHILLIP BAY



## Arden through time

Between six and eight thousand years ago, Port Phillip Bay extended up to the areas now known as North Melbourne and Flemington. This ancient coastline can still be seen today near Flagstaff Gardens and the edge of West Melbourne, evident in the distinction between the low-lying ground and the high ground.

After the sea retreated, the low-lying areas formed an extensive and resource-rich swamp (known as West Melbourne Swamp) fed by the Moonee Ponds Creek (formerly known as the Moonee Moonee Chain of Ponds), which appeared and disappeared according to the seasons, rainfall patterns and broader climatic epochs.

For millennia the Kulin nation lived in close connection with the land, water and the seasons. The landscape of inner North and West Melbourne surrounding Arden provided habitat for a rich ecology of birds, animals, fish and plants. The area provided food and resources to the Aboriginal people and served as a meeting place and camp for travelling along the coast.

When Europeans first settled the Port Phillip area in the mid-1830s, they described pleasant undulating country and open woodland across North Melbourne that attracted a variety of birdlife and was graced with mature River Red Gums and dense and diverse grasslands. Early settlers recalled that

Aboriginal people used to camp in the park-like lands in the early years of the town including areas near the Moonee Ponds Creek, in North Melbourne, the low-lying area of West Melbourne and other localities.

The introduction of a pastoral economy impacted on the natural balance of the land and waterways as sheep and cattle grazed the wetlands and trampled the native grasses. The Kulin were relocated to designated reserves on the outskirts of the city.

By the 1850s, the West Melbourne Swamp was reclaimed for railway, freight, port and industrial purposes for the city and a permanent course for the Moonee Ponds Creek was dredged to reach the Yarra River. Industrial growth along the Moonee Ponds Creek coincided with this reclamation and the 1854 River Yarra Pollution Prevention bill, which aimed to protect Melbourne's Yarra River water supply, forced noxious trades upstream or elsewhere including along the Moonee Ponds Creek. This encouraged industrial growth to sprawl along the creek corridor including brick works, flour mills, tanneries, soap and candle factories, a pottery and a bone mill. These noxious trades polluted the waters with large amounts of waste material, resulting in a putrid stench and the spread of disease. Figure 3 depicts Melbourne's planned growth in 1855 as the city expanded, in part, towards the West Melbourne Swamp.



**Figure 3** View from Batman's Hill, overlooking the rich, watery landscape of West Melbourne Swamp. (Source: National Gallery of Victoria)



The industries of Arden and the surrounding areas continued through the 20th century. This strong industrial function in and around Arden provided opportunities for work and cheap rent. A strong working class emerged in the area. Many Aboriginal people took up work in the factories after being forced off the reserves and missions in the 1920s and 1930s.

Arden has undergone incremental redevelopment as economic activities and buildings have reached the end of their utility. More recent redevelopment pressure in the vicinity of the precinct, as well the construction of the Metro Tunnel Project and Arden Station are presenting exciting new opportunities for Arden's future. Despite the swamp being filled in and the Moonee Ponds Creek being significantly altered, frequent and significant flooding in Arden continues to remind us of the underlying landscape.



**Figure 4** Droving cattle through Arden, view looking west from Haines Street, 1935.



**Figure 5** Aerial photograph of Arden and surrounds looking south-west, mid-20th century. Notable landmarks include the North Melbourne Gasometer, North Melbourne Oval and Moonee Ponds Creek (Source: State Library of Victoria).

## Arden today

### Landmarks and views

The Weston Milling site on Munster Terrace is a key landmark of the local area. Vantage points give long range views towards the Melbourne CBD skyline. Looking west, the CityLink elevated roadway is a significant feature of the local area. The Arden precinct is viewed each day by thousands of commuters on the Upfield rail line and CityLink to the west, and the Craigieburn, Sunbury, Werribee and Williamstown and regional rail lines to the south of the precinct.

### Open space

Arden's existing open spaces include the North Melbourne Recreational Reserve and Clayton Reserve.

The North Melbourne Recreation Reserve provides a highly programmed active recreation function, being home to the North Melbourne Football Club, and is restricted for public use at times. Clayton Reserve is currently used as a fenced dog off-leash area. Gardiner Reserve is next to the precinct and provides passive open space in a park setting.

The Moonee Ponds Creek is one of three major waterways in the City of Melbourne and is a significant open space asset despite sections of it being highly degraded. Access to it is restricted by the Upfield Rail Corridor.

Open space and landscaping associated with the North Melbourne Recreation Centre and Clayton Reserve define entrances into the precinct from the north. This is reinforced by existing trees lining the streets of the precinct.

## Flooding

Flooding and drainage are key issues to resolve for the potential of land development to be realised. This needs to be considered strategically as well as on a site-by-site basis. Climate change projections to the year 2100 indicate an increased risk of flooding due to a combination of sea level rise and more extreme rainfall events.

Much of the precinct is flood-prone and covered by the Land Subject to Inundation Overlay and Special Building Overlay, used to manage the impact of flooded land on urban development. It means these areas are subject to flooding at a level of 1 per cent Annual Exceedance Probability (AEP) – the likelihood in any given year that flooding exceeds a given height.

### Land ownership

The block structure in Arden is varied, comprising both large industrial blocks and smaller, fine-grain residential blocks.

The largest land holding is owned by the Victorian Government and bound largely by Arden Street, Barwise Street and Laurens Street. Other major land holders include Weston Milling, Citywide and the Lost Dogs Home.

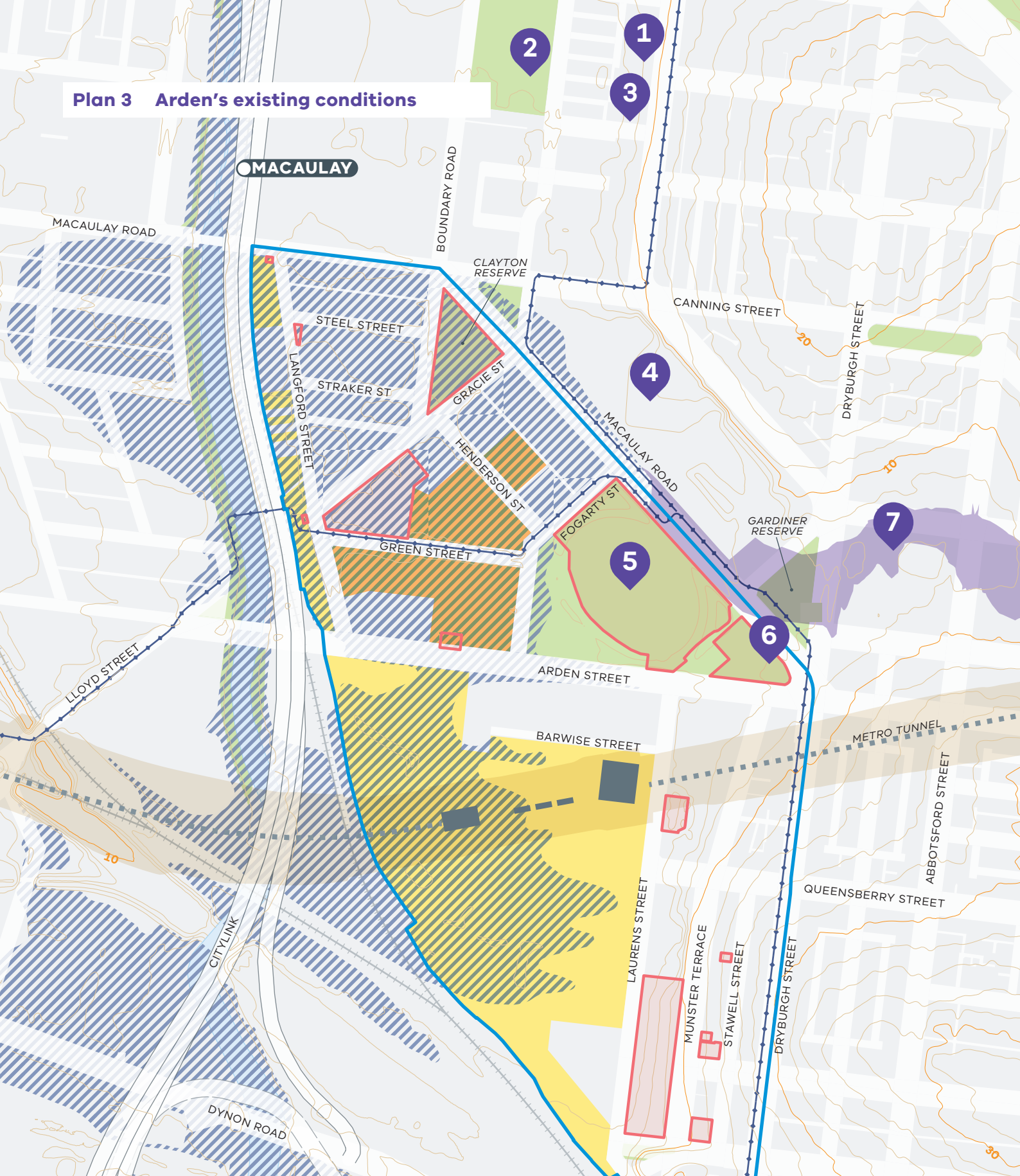
### Heritage assets

There are a number of heritage buildings within Arden which give the precinct a depth of character from which to evolve. Converted warehousing, milling structures and saw tooth industrial buildings are some examples of the mix of existing typologies within the precinct.

### Contamination

Arden's industrial past leaves a legacy of contaminated sites that require remediation to enable development.

# Plan 3 Arden's existing conditions



- precinct boundary
- local government-owned land
- Victorian Government-owned land
- new Arden Station above-ground features
- significant heritage attributes
- Land Subject To Inundation Overlay
- Special Building Overlay
- development subject to DDO70 Metro Tunnel Project - Infrastructure Protection Areas
- contour interval 2 metres
- transmission pressure gas pipeline indicative location
- 1 Hotham Hub Children's Centre
- 2 North Melbourne Community Centre
- 3 Jean McKendry Neighbourhood Centre
- 4 Victorian Archives Centre
- 5 North Melbourne Recreation Reserve
- 6 North Melbourne Recreation Centre & Pool
- 7 Lady Huntingfield Children's Centre



## Land use

A variety of zones currently apply in Arden including:

- **Commercial 1 Zone (C1Z)** to properties along Macaulay Road, between CityLink and Boundary Road. The zone provides for mixed use commercial centres for retail, office, business, entertainment and community uses. It also provides for some residential uses.
- **Industrial 1 Zone (IN1Z)** to sites along Laurens Street and Arden Street. The zone provides for manufacturing industry, the storage and distribution of goods and associated uses in a manner that does not affect the safety and amenity of local communities.
- **Industrial 3 Zone (IN1Z)** to sites along Laurens Street and Arden Street. The zone provides for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict. It also allows some retail opportunities.
- **Mixed Use Zone (MUZ)** to the majority of sites to the east of the precinct. The zone provides for a range of residential, commercial, industrial and other uses.
- **Public Use Zone 4 – Transport (PUZ4)** to railway land along the Upfield railway line and to the east of Laurens Street in the south of the study area.
- **Public Park and Recreation Zone (PPRZ)** to the North Melbourne Recreation Centre site. The zone recognises areas for public recreation and open space.

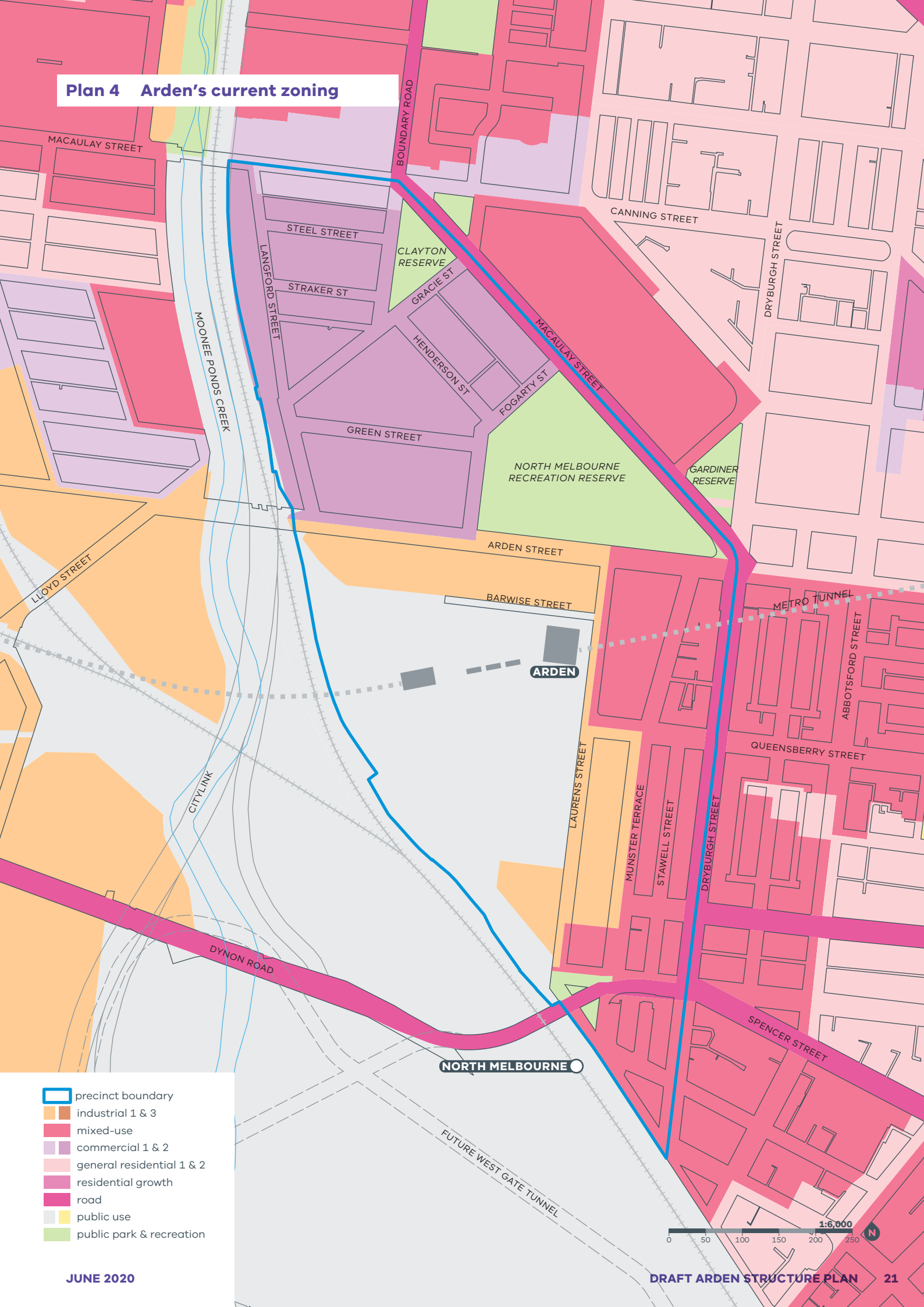
Industries in Arden are diverse and include warehousing and showrooms, concrete batching, food manufacturing, transport industries, and other construction industries.

Arden’s renewal will generate opportunities for government to support existing businesses that are undergoing change to find more suitable locations as the precinct becomes a place for a mix of employment and residential uses, people focussed streets and green spaces.

Current zoning has limited the establishment of residential land uses in Arden, which are primarily clustered in the Laurens Street sub-precinct within the Mixed Use Zone. Despite this zoning, the majority of new development has been residential. While the zoning allows for it, there is limited retail offering in the area.

Recent development activity has seen a greater focus on residential apartment development. One example includes a major mixed use development proposed on a 1.5 hectare site on Arden Street. This activity is in part a response to the future infrastructure provision, public realm upgrades and development potential indicated by the draft *Arden Vision* released in 2018.

# Plan 4 Arden's current zoning



- precinct boundary
- industrial 1 & 3
- mixed-use
- commercial 1 & 2
- general residential 1 & 2
- residential growth
- road
- public use
- public park & recreation

## The Metro Tunnel Project – Arden Station

The Metro Tunnel Project’s legacy in creating a great place in Arden will be defined by the quality of the design and integration of Arden Station into the public realm. There will be four above-ground elements to the station as well as the station box and tunnel below ground:

### Main station building

Located near the corner of Laurens Street and Barwise Street, the main station building will be the key arrival point into Arden. The station’s striking ‘barrel vault’ archway design will be the central feature of a continuous public space at the centre of the precinct.

Its design will reference Arden’s rich industrial history through the use of materials such as clay brick, bluestone, timber, steel and glass. Retail spaces and a café will be included in the station, with outdoor dining terraces. Public seating, garden beds and lawn areas will provide a new gathering place for locals and visitors to enjoy.

### Western service building

The western service building will be located on the western side of the Fogarty Street extension and provide essential services access to the station including electrical service rooms, loading and logistics spaces and emergency exits. All service openings are located on the building’s eastern façade, allowing for development immediately adjacent to the three other façades.

It will be built of brick and concrete with a similar external character to the main station building. It is not a passenger-accessible building.

It is not possible to build directly on top of the western service building, though design options will be investigated on the feasibility of a cantilever structure to allow for some development of the building. Activation or sleeving of the south wall of the building will also be investigated, including the potential for a small retail or bookable community space or a performance space fronting onto the Arden Capital City open space.

### Skylights

Three skylights of 2.5–3.0 metres in height and approximately 17 metres long each will be located in the Arden Central public space between the two station buildings. These will provide natural light to the central void space of the underground station.

The skylights will be glass and concrete, clad in grey granite and integrated into the landscaping of the central public space.

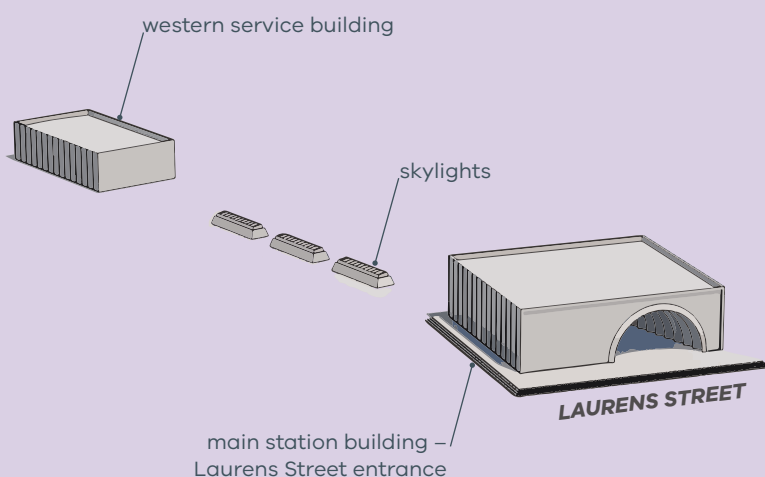
### Future entrances

The design of the station concourse leaves available the option for future entrances to be added. A potential future entrance could be accommodated such as on the corner of the future Fogarty and Queensberry Street extension intersection.

## Design and Development Overlay – Metro Tunnel Project – Infrastructure Protection Areas

Below ground, the Arden Station box and tunnels are planned assets under construction. Schedule 70 to the Design and Development Overlay seeks to ensure development does not adversely affect or put at risk the construction, integrity or operation of the Metro Tunnel infrastructure. Proposed new developments will need to ensure that matters such as design loading, design clearances, noise, vibration and electromagnetic interference are within the acceptability limits designed for operation of the Metro Tunnel, and will need to respond to the noise, vibration and electromagnetic interference impacts anticipated for the Metro Tunnel operations.

Developers are strongly encouraged to engage early with Rail Projects Victoria, which is responsible for the delivery of the Metro Tunnel Project.



**Figure 6** Arden Station’s proposed above-ground design features. Indicative only for illustrative purposes.



Figure 7 Entrance to the new Arden Station from Laurens Street (concept image).



Figure 8 Concourse of the new Arden Station (concept image).

## The sub-precincts

Arden is divided into three sub-precincts – Arden North, Arden Central and Laurens Street – that reflect the differences in their character.



**Figure 9** Construction site for the new Arden Station in Arden Central.



**Figure 10** North Melbourne Recreation Reserve and oval.



**Figure 11** Queensberry Street, looking west towards Laurens Street.

### Arden Central

Approximately 16 hectares

The Arden Central sub-precinct currently contains mainly Victorian Government-owned land used for transport purposes, with privately-owned parcels on Arden Street and at the southern end of Laurens Street. The new Arden Station is located within this block, fronting Laurens Street.

The area is flat and highly walkable, with striking views of the central city skyline, the freeway, the Melbourne Star Observation Wheel, and the prominent 'Don's' painted silos.

The sub-precinct is currently laid out as a single large block, with no permeability to surrounding areas. Existing buildings in this area are typically industrial buildings of one or two storeys in height.

### Arden North

Approximately 22 hectares

Arden North contains small-scale industry, warehousing, community services, open space and recreation, including local icons such as the North Melbourne Recreation Reserve, the North Melbourne Recreation Centre and Pool and Clayton Reserve.

Large floorplate brick or sheet metal clad industrial buildings with blank walls or car parking at ground level is a common feature. The precinct includes wide roads that accommodate industrial and logistics vehicles, with generally large but irregular blocks due to the street network layout.

### Laurens Street

Approximately 12 hectares

The Laurens Street sub-precinct includes residential, commercial and industrial land uses set along wide tree-lined streets. It is already transitioning from a primarily industrial area to some residential uses and contains a number of buildings of heritage significance. The land rises sharply to the east within the sub-precinct.

Larger land uses such as a flour mill and car sales centre are located between Laurens Street and Munster Terrace, with street frontages a mix of heritage brick and more modern materials.

There are smaller residential blocks along the eastern edge between Munster Terrace and Dryburgh Street. Residential buildings are generally low-rise terrace houses, some warehouse conversions and recently constructed low-rise apartments and terraces. The latter are generally three to five storeys with ground floors typically dominated by car parking access or garaging.

The southern portion of the sub-precinct is included within the West Melbourne Structure Plan boundary and aligns with the future vision for the precinct.





Figure 12 Arden's sub-precincts.



# 2 Transforming Arden

Innovation  
Land use  
Celebrating Aboriginal cultural values



*Arden will advance Melbourne's strengths as a progressive, innovative and connected local and global city. The new Arden Station will catalyse Arden's transformation into a new employment hub. There will be significant opportunities for better and diverse ways of working, living and learning, as it evolves from an industrial area into an innovation precinct.*

*– Arden Vision, 2018.*

The precinct's transformation from an industrial to knowledge-based economy will encourage clustering of small and large organisations, with a focus on catalysing and enabling growth in the digital technologies, life sciences, health and education sectors. Arden's development as an innovation precinct will unlock opportunities for greater economic output, leveraging capabilities and investment in Victoria's high-growth knowledge based-industries.

To create an innovation ecosystem, the Brookings Institute identifies that a precinct must comprise three types of assets:

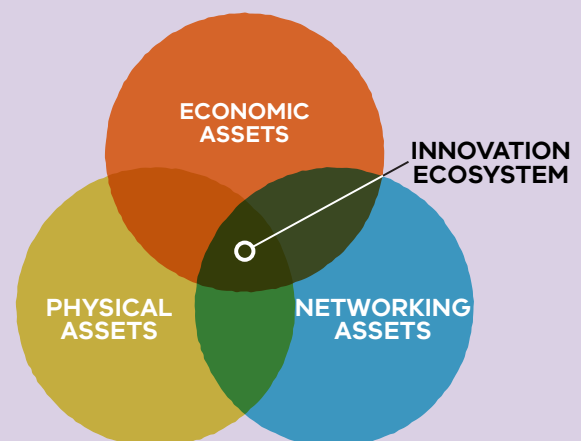
- **Economic assets** including the firms, institutions and organisations that drive, cultivate or support an innovation rich environment.
- **Physical assets** including publicly- or privately-owned spaces such as streets and other infrastructure, designed and organised to stimulate new and higher levels of connectivity, collaboration and innovation.
- **Networking assets** including the relationships between people, firms and places that facilitate idea generation and advances in commercialisation.

## Innovation precincts

"... are geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators and accelerators. They are also physically compact, transit-accessible, and technically-wired and offer mixed-use housing, office, and retail."

"... facilitate the creation and commercialisation of new ideas and support metropolitan economies by growing jobs in ways that leverage their distinct economic attributes."

– Bruce Katz & Julie Wagner (2014)



**Figure 13** Three types of assets required to create an innovation precinct. Adapted from Katz & Wagner, 2014.

## OBJECTIVE 1

**Create the conditions that attract and retain global talent in the life-sciences, education, health and digital technology sectors and foster interaction, collaboration and knowledge sharing between enterprise, government and education.**

Successful innovation precincts have specific economic, physical and networking assets that work together to make a successful place. These criteria are described in Figure 15.

The urban structure established by the draft plan enables the delivery of an innovation precinct while maintaining strong urban design principles. Blocks are designed to be flexible as economic development opportunities arise over the life of the precinct, while built form controls, a walkable street network, generous open spaces and other planning controls will ensure Arden is a great place to live, work and visit.

Arden will require a range of industry-focussed facilities, such as spaces for co-working and collaboration, affordable shared research infrastructure (including labs and technical equipment), small-footprint advanced manufacturing plants, clinics for medical trials, artists' studios and makers spaces, multi-purpose education facilities and events spaces, short term accommodation for visiting experts and students, and places to showcase Melbourne's innovation and creativity to the world.

An innovation hub proposed for the heart of Arden will be one of the ways to bring these components together. The hub will act as a 'front door' to the precinct that connects prospective businesses, travelling academics or clients to the opportunities that will emerge from the clustering of businesses in Arden.



Figure 14 Artist's impressions of potential innovation hub models anticipated for Arden. Indicative only for illustrative purposes.

## STRATEGY 1.1

Facilitate the development of anchor enterprises and industry facilities early in Arden's development to showcase innovation, create jobs in the precinct and attract ancillary businesses and industries.

## STRATEGY 1.2

Establish an innovation hub in the heart of Arden that includes affordable space for innovation and technology labs, artists' and makers' studios and co-working spaces, complemented by presentation and seminar spaces for sharing, exhibiting and commercialising work.

## STRATEGY 1.3

Support the delivery of world-class and networked facilities and equipment throughout the precinct, such as laboratories and high-speed internet, to provide the tools for innovation, attract global talent and facilitate formal and informal collaboration and knowledge sharing.

## STRATEGY 1.4

Explore private and public delivery models for affordable workspaces for arts, creative and innovation industries necessary for the desired economic activity. This includes delivering workshops and artists' studios, presentation spaces and co-working and collaboration spaces available on a variety of tenures and price-points to support Arden's future businesses.

## STRATEGY 1.5

Monitor and measure success against the factors driving the success of innovation precincts in Figure 15.



## Factors driving the success of innovation precincts

A checklist of nine criteria have been adopted from the Department of Environment, Land, Water and Planning's *Unlocking Enterprise in a Changing Economy* (2019) to guide the structure planning process.

These criteria can highlight how, for example, deficiencies in one of these factors, such as poor quality of place or lack of collaborative culture, could be holding back a precinct from realising its full potential despite the presence of other factors, such as strong anchor institutions or high quality information and communications technology infrastructure.



Figure 15 Factors that will drive the success of Arden as an Innovation precinct. (Source: DELWP)

## **OBJECTIVE 2**

**Deliver a highly liveable, mixed use precinct of Melbourne that aspires to accommodate approximately 34,000 jobs and around 15,000 residents with innovation at its heart.**

The Victorian Government and City of Melbourne have significant land holdings within Arden and are taking a proactive approach to curating the precincts development. Arden’s government land holdings and the new train station uniquely position the precinct to provide homes and jobs for Melbourne’s growing population. Arden’s vision is to be a world leading urban renewal precinct exemplifying Melbourne’s reputation for liveability.

Arden will host a productive and innovative economy specialising in digital technologies, life sciences, health and educational sectors, complementing the globally recognised biomedical precinct in nearby Parkville.

To be successful, Arden needs to deliver approximately two-thirds of its development for employment uses and one-third for residential uses.

Future zoning in Arden will ensure a genuine mix of land uses can be achieved, particularly zones that cater to an employment focussed and amenity-rich innovation precinct. Zoning needs to manage conflicting land uses and activities and ensure that this mixed use creates the platform for innovation and activation.

The City of Melbourne is continually reviewing and refining its land use zoning policies to understand the effectiveness of the planning policy tools available. Zones such as the Mixed-Use Zone, Capital City Zone, Commercial Zone and Special Use Zone have all been applied within the Melbourne local government area to facilitate the transformation of new places.

### **STRATEGY 2.1**

Provide an urban structure that aspires to accommodate approximately 34,000 jobs and around 15,000 residents and caters for a broad range of building types and floorspaces for the many different uses that will comprise the future of Arden.

### **STRATEGY 2.2**

Provide appropriate planning controls and policy to attract the identified jobs mix and unlock Arden’s potential for innovation.



**Figure 16** Example of a potential innovation hub, as seen at Swinburne University Engineering Campus.

## Case study: Exploring design responses to innovation uses

### The Melbourne Brain Centre, Parkville, Melbourne

The Melbourne Brain Centre is the largest brain research collaboration in the southern hemisphere. Research at the Centre is focused on translating clinical neuroscience research into improved clinical practice, policy and patient outcomes. At approximately 20,000 square metres, the centre incorporates six levels of intensive laboratories, auditorium, art gallery and MRI facilities.

Sustainability is part of the everyday operation of the centre, with water reuse and efficient energy consumption embedded within the building design.

Now internationally recognised as a cutting-edge educational facility, the Melbourne Brain Centre provides a home for Australian medical research now and into the future.



Figure 17 Top, above: external and internal views of the Melbourne Brain Centre.



Figure 18 Above, right: views of the RBA 22@ headquarters.

### RBA 22@ headquarters, Barcelona

The RBA 22@ building was designed to bring together formal and informal collaboration through internal and external open spaces on every floor.

The surrounding context and neighbourhood's industrial past are expressed in the simple structure frame with coloured ceramic panelling, referring to the few surviving brick factories. A through block link at ground levels creates a pedestrian passageway that aligns with the surrounding context.

The building delivers 19,000 square metres of commercial office space across 17 storeys.



### OBJECTIVE 3

#### Celebrate, protect and interpret Aboriginal cultural values and heritage in the planning, design and curation of Arden.

For millennia the Kulin nation lived in close connection with the landscape surrounding Arden. This connection to country has continued since the arrival of Europeans in a variety of traditional and contemporary ways. While there are many stories and places in Melbourne that contain evidence of this connection, this is not always something that is apparent to people who live, work or visit Melbourne.

Places of contemporary and historical cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape.

The transformation of Arden presents an opportunity to reveal the areas rich cultural history and to create space for the ongoing interpretation and sharing of cultural values that remain an important part of contemporary Aboriginal communities.

An Aboriginal Cultural Values Assessment has been prepared in consultation with the Traditional Custodians of the land and has identified the following eight cultural values to underpin the planning for Arden:

- **Caring for Country:** Holistic approach to Country, nurturing Country, including the land, water, plants, and birds, animals and fish.
- **Connections to Country:** Strengthening connection to Country through stories, traditions and cultural practices, both traditional and contemporary.
- **Traditional knowledge:** Promoting, preserving and reigniting traditional knowledge, including Aboriginal languages; education.
- **Celebrating community:** Celebrating all of the community inclusively, including recent immigrant groups.
- **Respect for ancestors:** Remembering the stories of ancestors.
- **Celebrating culture:** Expressing Aboriginal identity, culture and spiritual life.
- **Stories of survival and the need for healing:** Stories of Aboriginal people finding their community and keeping community strong, for example, after leaving the missions and making new lives in Melbourne.
- **New knowledge:** Valuing archaeological and historical research that uncovers new information about Aboriginal history.

The findings of the cultural values assessment have informed the development of this plan and will be used by state and local government to ensure Aboriginal cultural values are reflected in developments which they undertake, support and/or have a role in approving.



**Figure 19** Detail, by George Alexander Gilbert of the view from Batman's Hill looking north-west across West Melbourne Swamp, 1847. (Source: State Library Victoria)



**STRATEGY 3.1**

Plan for a new arts, cultural and community hub in Arden North to provide spaces for sharing Aboriginal history, culture and values associated with the area and for supporting Aboriginal business.

**STRATEGY 3.2**

Support the recognition and interpretation of the Aboriginal cultural values and heritage in Arden through engagement with the development industry and other stakeholders and in ongoing consultation and collaboration with Traditional Custodians.

**STRATEGY 3.3**

Explore opportunities to reveal the history of Arden as a rich and watery ecology, source of food and place of meeting through design, planting and curated programs. In particular, collaborate with the Traditional Custodians and local community to recognise this through the design of key spaces including the Arden North integrated stormwater management open space.

**STRATEGY 3.4**

Restore and nurture the local natural environment through indigenous planting and land management practices developed in collaboration with Traditional Custodians.

**STRATEGY 3.5**

Create opportunities to embed Aboriginal language, design and names in streets, parks and public buildings in consultation with Traditional Custodians.

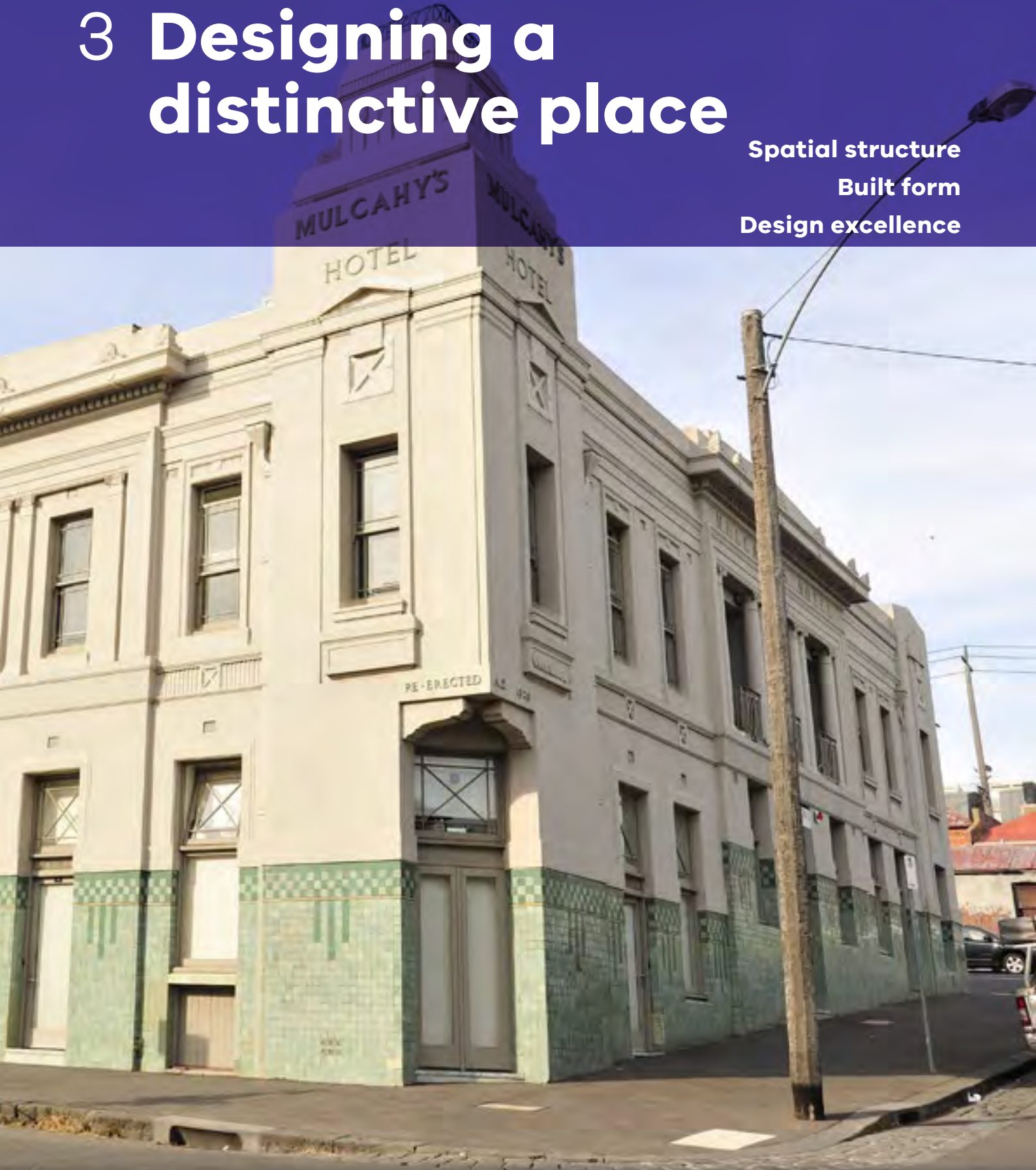
**STRATEGY 3.6**

Identify opportunities for inclusive and social procurement policies and skills development for Aboriginal people in delivering Arden.



# 3 Designing a distinctive place

Spatial structure  
Built form  
Design excellence



***Arden will be shaped by exemplary urban design and built form, anchored by the valued characteristics that make the suburbs of North and West Melbourne special to its residents and workers. Public areas will respond to the existing environment and strengthen the evolving identity of the precinct.***

***– Arden Vision, 2018.***

Arden has a rich history and context that will help create a distinctive new piece of Melbourne and a new destination for the city. Arden will include the characteristics of successful places – a new structure of great streets creating walkable and connected blocks and a range of new open spaces connecting to those already there, including Clayton Reserve and North Melbourne Recreation Reserve.

The place-based approach to Arden identified through the three sub-precincts of Arden North, Arden Central and Laurens Street will include a variety of building types, heights and densities that fit well within their surrounding context, while also helping to create a new and distinct character.

A high-quality and connected public realm will piece together these three distinct sub-precincts and connect Arden with neighbouring areas to help attract new businesses and residents to the area. The new streets and spaces will be framed by high quality architecture – as the expectation rather than the exception – and design excellence will be expected on key sites within the area to help deliver the key directions of exemplary urban design in Arden.

## Urban structure

Melbourne has a proud history of being planned with a grid street network with parks and boulevards as important features of the public realm. Arden will continue this walkable grid structure while incorporating more contextual elements such as diagonal streets and triangular parks that are specific to North Melbourne, West Melbourne and Kensington. Arden will look and feel like a part of Melbourne from both the street and the sky, while also delivering a new and exciting offering to the city.

The network of streets and open spaces will respond to the existing context of the area – including surrounding buildings, the topography and stormwater management – to provide a framework for the future development and transformation of Arden.

The proposed spatial plan for Arden recognises the importance of creating a new part of the city where uses can change and evolve over time around a robust framework of streets. The Hoddle Grid in Melbourne is a successful example of how many different uses can occupy buildings over time.

The key moves and elements (Figure 20) of the proposed spatial plan for Arden include:

- 1 **A civic heart** in Arden Central, centred around the new Arden Station opening out to a new Capital City Open Space and connected to a new green neighbourhood park. These spaces will be framed by a layer of low to mid-rise buildings housing a range of uses that allow sunlight to the new spaces – the heart of Arden.
- 2 **Extending Fogarty Street** through the heart of Arden Central and connecting to the Macaulay urban renewal area via Henderson Street and Boundary Road, forming an urban boulevard and main north–south green spine through the precinct.
- 3 **Extending Queensberry Street** boulevard through the precinct to connect Arden with North Melbourne and become the main east–west route through Arden Central and Laurens Street sub-precincts.
- 4 **A connected network of open spaces and green streets** with a 2.5–3km green loop around Arden.
- 5 New **integrated stormwater management** open spaces become a focal point for Arden North and an important asset to the community along the entire western boundary.
- 6 Creating a **new linear park** along Munster Terrace to form a focal point and new open space in the Laurens Street sub-precinct.
- 7 A new **innovation precinct** with a range of building types and sizes clustered around the northern half of the Arden Central sub-precinct and the new Arden Station.
- 8 Designing **built form to transition** from the established lower scale of North Melbourne towards the higher density development in Arden Central and around the new Arden Station while also ensuring appropriate sunlight access to new and existing open spaces.



**Figure 20** The concept plan for Arden highlighting the key moves that have informed the new urban structure. Indicative only for illustrative purposes.

## Plan 5 Arden's future urban structure

### Arden North will be defined by...

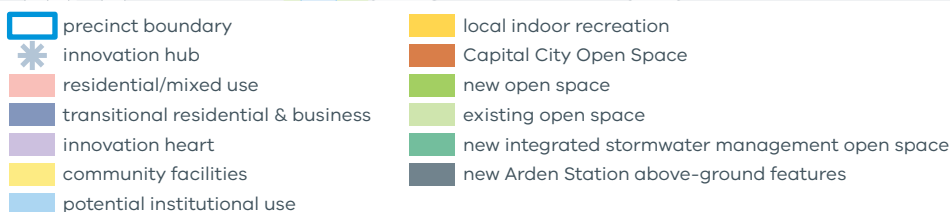
- 1 Water in the landscape, where streets will manage water flows with green links and cloudburst elements. The new Arden North integrated stormwater management open space will help manage flooding during rain events.
- 2 Continuous green space that extends from the North Melbourne Recreation Reserve.
- 3 The Fogarty Street urban boulevard providing green links and public transport options, connecting Arden North to Arden Central and the Macaulay urban renewal area.
- 4 New and expanded community facilities at the North Melbourne Recreation Reserve.

### Arden Central will be defined by...

- 5 A major health or education institution embedded in the precinct to foster innovation.
- 6 Design excellence and leading sustainability practice in buildings and the wider public realm.
- 7 A major activity centre for Arden around the station and major intersections of Queensberry Street, Fogarty Street and Laurens Street.
- 8 A civic centre in Arden Central including open space, public transport, public institutions and a proposed government primary school, framed by mixed-use development.

### Laurens Street will be defined by...

- 9 Transitional density opportunities that provide a comfortable interface to the activity of Arden Central.
- 10 Walkable and connected streets that invite visitors into the precinct with sustainable transport links along the Queensberry Street boulevard.
- 11 Built form that complements and builds on existing North Melbourne character, seamlessly interfacing with the existing residential areas to the east with creative and adaptive reuse of heritage buildings.



## **OBJECTIVE 4**

**Deliver a new urban structure for Arden that incorporates a high-quality network of connected streets and open spaces that help support a varied and walkable block structure.**

The proposed spatial plan (see Figure 21) helps to provide certainty and control for Arden's future but also allows for a degree of variation and flexibility as the precinct develops over time. A clear, connected street network throughout the precinct helps to deliver a range of different development blocks throughout the three sub-precincts.

The proposed development blocks provide enough certainty and control to help plan for Arden's future, but also allow for robustness, variation and flexibility for future development to respond to changes that may occur as Arden gradually develops.

A wide range of development block sizes are proposed in Arden Central and Arden North. These block sizes will help support a mix of different uses, including laboratories, pharmaceutical uses, and innovation uses, as well as other commercial, retail and residential uses.

The smallest block sizes can be found in areas that have already been subdivided such as those in Arden North near Macaulay Station and Laurens Street.

There is flexibility within the proposed street network of smaller streets and laneways to ensure adaptability to future needs of new businesses and tenants while ensuring a connected, fine grain and walkable structure. As a result, some blocks could be combined to become larger or smaller according to the needs of future uses, but care needs to be taken to ensure the smaller streets and laneways still deliver a connected, permeable and safe street network.

Design of the new Arden Station has allowed for a future second entrance within Arden Central, to the west of the station building. The realisation of this second entrance will improve the walkability of the precinct. It is proposed that this entrance is located in the new Capital City Open Space, at the intersection of the Fogarty Street and Queensberry Street extensions as shown in Figure 21.

The success of the proposed public spaces in Arden depends partly on a clear definition and activation of their edges. This is achieved by having a consistency of building frontages facing the open space; sufficient height and mass to achieve a good sense of enclosure and good levels of sunlight. More information on the roles and functions of these spaces can be found in Chapter 7 – Creating diverse open spaces.

### **STRATEGY 4.1**

Deliver Arden's renewal in general accordance with the spatial plan as per Figure 21 to deliver exemplary urban design, a mix of block sizes and a broad range of building types.



**Figure 21** Artist's impression of Arden's future urban structure. Further detailed design of open spaces and streets will be undertaken in consultation with community, Traditional Custodians and other stakeholders. Indicative only for illustrative purposes.



## Key components of the Arden spatial plan



### A distinct and contextual spatial plan

The spatial plan responds to the existing context of the area, including existing buildings, established trees, heritage, topography (brown arrows), flooding and key views (blue arrows).

Taller buildings (orange areas) will be located where they will frame key views and create a new skyline and character, while minimising the impact on surrounding areas.



### A clear street hierarchy in the spatial plan

A hierarchy of different types of streets within Arden will serve a range of functions including transport and movement, urban greening and environmental performance, providing spaces for people to spend time, and creating a thriving retail environment.

Fogarty Street (dark green) will be the key north-south connector that enables movement through the precinct and connects Arden into West Melbourne and Macaulay, while Queensberry Street (light green) will provide a direct connection to nearby Parkville and the North Melbourne Arts precinct. Arden Street (blue) is the key east-west street. Laurens Street (purple) forms a crucial connection between North Melbourne Station and Arden Station.

Pedestrian priority zones (yellow) will encourage people to spend time, move and play as extensions of the open space network.





### A network of open spaces in the spatial plan

The spatial plan proposes a network of new and existing open spaces (green areas) – these include the key spaces of a new Capital City Open Space and adjacent open space in Arden Central, new open spaces in Arden North that act as stormwater storage areas and a new linear park along Munster Terrace. These spaces are connected to existing open spaces in the area, including Clayton Reserve and North Melbourne Recreation Reserve which help to create a 2.5–3 km walking and running path (purple line) through the precinct.



### A variety of proposed block sizes in the spatial plan

A variety of block sizes (orange blocks) are proposed throughout Arden for a range of specific uses including Arden’s sector focus uses, as well as other commercial, retail, community and residential uses. Within the new structure in Arden Central and Arden North, the proposed block sizes range from approximately 1,500 square metres to approximately 4,000 square metres, with a larger block of approximately 10,000 square metres in Arden Central to support a major health or education institution.

## OBJECTIVE 5

**Introduce density and built form controls that help transform Arden into a world-leading urban renewal precinct and innovation precinct while celebrating the precinct's existing assets and surrounding neighbourhoods.**

New density and built form controls will transform Arden to a new and distinctive part of the city, while being sensitive to the existing built form and character of North Melbourne. The new controls will consist of design recommendations (to help inform new Design and Development Overlays in the planning scheme amendment), floor area ratio controls (FARs) and built form controls (such as building heights and setbacks). These controls will allow certainty around the scale of development that can be expected within each part of Arden, while allowing flexibility at a site level to respond to local conditions.

FARs allow for a variety of building types. When combined with built form controls, FARs create a flexible framework to achieve a variety of creative and contextually responsive building designs.

The introduction of mid-rise (7 to 15 storeys) and high-rise (16 storeys and taller) development in Arden, with some low-rise development (up to and including 6 storeys) will redefine the skyline of this part of Melbourne. Arden's taller skyline will stand out from the stretch of low to mid-rise development along the Moonee Ponds Creek from Docklands through to Flemington.

The Laurens Street sub-precinct plays an important role stepping and transitioning new developments down to an appropriate scale to integrate with the existing urban form. Building heights and types to the western and northern boundaries will vary to help create visual interest and depth while helping avoid solid walls of development.

An Arden Design Guide (similar to the Central Melbourne Design Guide) will be prepared to support the use and interpretation of the proposed new controls by focusing on the key components of design that will contribute to inspiring well designed buildings, streets and places within Arden.

The main elements of built form character for each precinct are:

### Arden Central

- Low to mid-rise development within the core surrounding the new open spaces and the heart of Arden, with denser and taller buildings layered around the edge. A range of typologies will be required to respond to the controls, specific land use needs and the opportunity for taller built form in the south-west area.

### Arden North

- Mid to high-rise developments on larger sites and a hybrid of perimeter blocks and slender towers to avoid significant overshadowing of Clayton Reserve, North Melbourne Recreation Reserve and the new integrated stormwater management open spaces in Arden North.

### Laurens Street

- Predominantly low to mid-rise developments with some opportunities for additional upper levels that are visually recessed from the street and provide appropriate solar access to streets. Some high-rise development as appropriate near the new Arden Station.

An iterative process to ensure an appropriate balance between the future population and the desired built form has resulted in the proposed design recommendations, FARs and built form outcomes in Arden as shown in Plan 6 and the corresponding table.

Following engagement and feedback on the draft plan, further built form analysis will be carried out to continue to test and refine the FARs and how they work with the proposed height and other built form controls. This could include analysis to ensure buildings do not cause unsafe or uncomfortable wind conditions in streets and open spaces.

## STRATEGY 5.1

Prepare an Arden Design Guide and planning scheme amendment to implement the relevant strategies of the plan. This will implement the design recommendations, floor area ratio controls and built form controls.

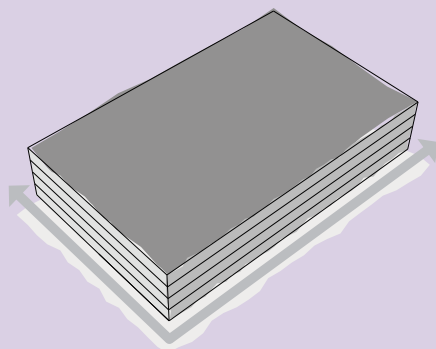
## Understanding floor area ratios

A floor area ratio is a type of planning control that sets a specific amount of development that can occur on a site. The floor area ratio is the ratio of a new building's total floor area in relation to the size of the site it is being built on.

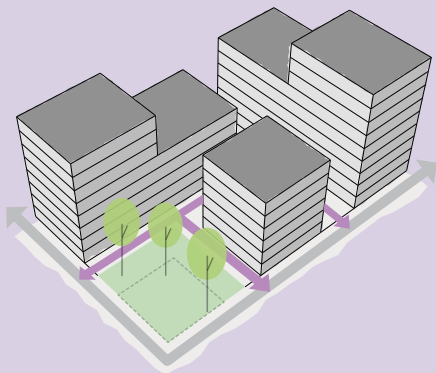
When combined with other built form controls, it allows for variation in the height and shape of buildings. This will help to ensure that new development is more responsive to its site and the characteristics of an area.

The diagrams below explain the concept of floor area ratios and how it can result in different building types. For example, a floor area ratio of 4:1 allows for a total floor area up to four times the size of the site itself. This could be up to four storeys if 100 per cent of the site is developed or eight storeys if only half the site is developed.

For larger sites, a floor area ratio combined with other built form controls allows for variation in the height and shape of buildings while also enabling the delivery of new streets and open spaces.



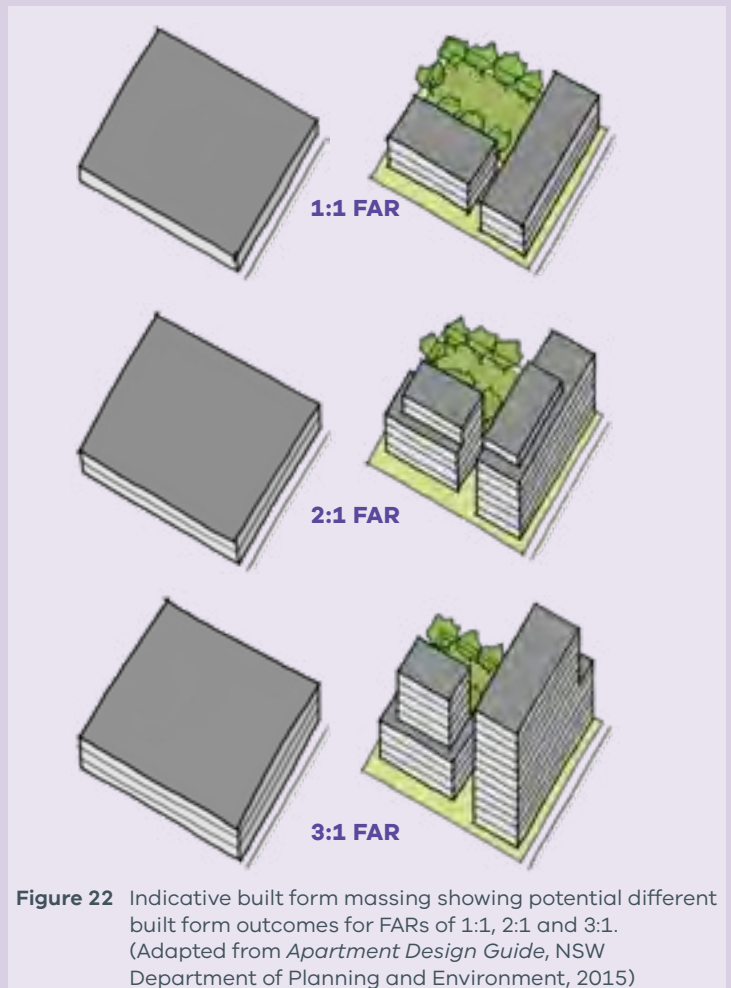
**4:1 FAR**  
4 storeys, 100% site coverage



**4:1 FAR**  
4–11 storeys, 60% site coverage

Some of the benefits of floor area ratios are they:

- can often be aligned to the overall population or employment target for an area;
- can help to deliver a range of building typologies, helping to deliver a range of uses and provide visual interest;
- set realistic and clear expectations about the potential development yield on a site;
- enables flexibility for an architect to choose how they organise their building layout and form on their site within a preferred built form envelope, and focus on design quality rather than yield;
- have a direct relationship with the size of a site and can therefore be relatively easy to communicate;
- can help deliver a mix of uses with requirements for minimum floor areas for a range of different uses; and
- provide a clear and consistent measure to support efficient decision making.



**Figure 22** Indicative built form massing showing potential different built form outcomes for FARs of 1:1, 2:1 and 3:1. (Adapted from *Apartment Design Guide*, NSW Department of Planning and Environment, 2015)

## Key design recommendations for Arden

The following key design recommendations for Arden inform the proposed design outcomes, FARs and height ranges in the draft plan:

- Deliver a range of built form typologies in Arden to meet the needs of different uses and users, with a layered mix of low-, mid- and high-rise and hybrid typologies (such as perimeter blocks with slender towers).
- Require spacing between taller buildings to create a skyline of separate forms, rather than a continuous wall of built form when viewed from within Arden (particularly from the new neighbourhood park and Capital City Open Space), and from surrounding areas, including those travelling on trains on the adjacent rail lines or on the elevated CityLink freeway.
- Ensure new developments have consistent building lines and sufficient height and mass to positively address key spaces and manage overshadowing – the core of Arden Central around the new neighbourhood park and Capital City Open Space will be of lower rise to ensure sufficient sunlight to these spaces and provide a human scale and layering of development.
- Locate taller buildings to have minimal impact on surrounding areas. Important views into and out of the precinct will be created by responding to local topography.
- Create a distinct, varied and architecturally interesting skyline for Arden that establishes a strong sense of place at a local and city scale.
- Deliver comfortable wind conditions in the public realm for walking, sitting or standing.
- Facilitate the transition of scale between buildings fronting Dryburgh Street and Laurens Street.
- Require development directly abutting heritage-built form to respond with a respectful and contextually appropriate design.
- Provide new, direct and convenient pedestrian connections that align with other streets, laneways or walking routes in new development.
- Ensure the site layout of development responds to the function and character of adjoining streets, laneways and open spaces.
- Ensure development appropriately considers the amenity impacts on neighbouring development.
- Ensure a high standard of internal amenity within the new developments.



**Figure 23** Example of varied architectural form in Amsterdam, Netherlands.



**Figure 24** Example of design excellence at Arc Tower, Sydney.

- Deliver contextually appropriate built form interfaces to streets with regard to street width and lower street walls heights on narrower streets.
- Support equitable development by ensuring primary outlook is secured within development sites.
- Ensure buildings along Arden Street have a positive street address to both Arden Street and Barwise Street.
- Ensure new development does not cast any additional shadow to that cast by buildings built to the maximum street wall to the new neighbourhood park in Arden Central from 11:00am to 2:00pm from 21 June to 22 September.
- Ensure new development do not cast any additional shadow to that cast by buildings built to the maximum street wall to Clayton Reserve, North Melbourne Recreation Reserve and the new open space park in Arden North from 11:00am to 2:00pm on 22 September.
- Ensure buildings are setback sufficiently from front, side and rear boundaries (based on the height of a building) to help deliver comfortable wind conditions, enable adequate sunlight and daylight in streets, allow for views to the sky, to not overwhelm the public realm and achieve privacy.

- Ensure appropriate building separation within a site to deliver high quality amenity within buildings having regard to outlook, daylight and overlooking.
- Encourage fine grain ground floor shop fronts, lobbies and service areas.
- Ensure the design of buildings conceals service areas from the street frontage to minimise the loss of active perimeter.
- Maximise personal safety and security through activation of ground floors around open spaces and along Arden Street, Fogarty Street, Barwise Street and Laurens Street.
- Minimise the cumulative length of each service area and avoid any continuous service frontage of greater than 10 metres in length.
- Require that the design of services, loading and parking areas adopt the best practice approach comprising location, integration and decoration of elements to create a high quality pedestrian environment.

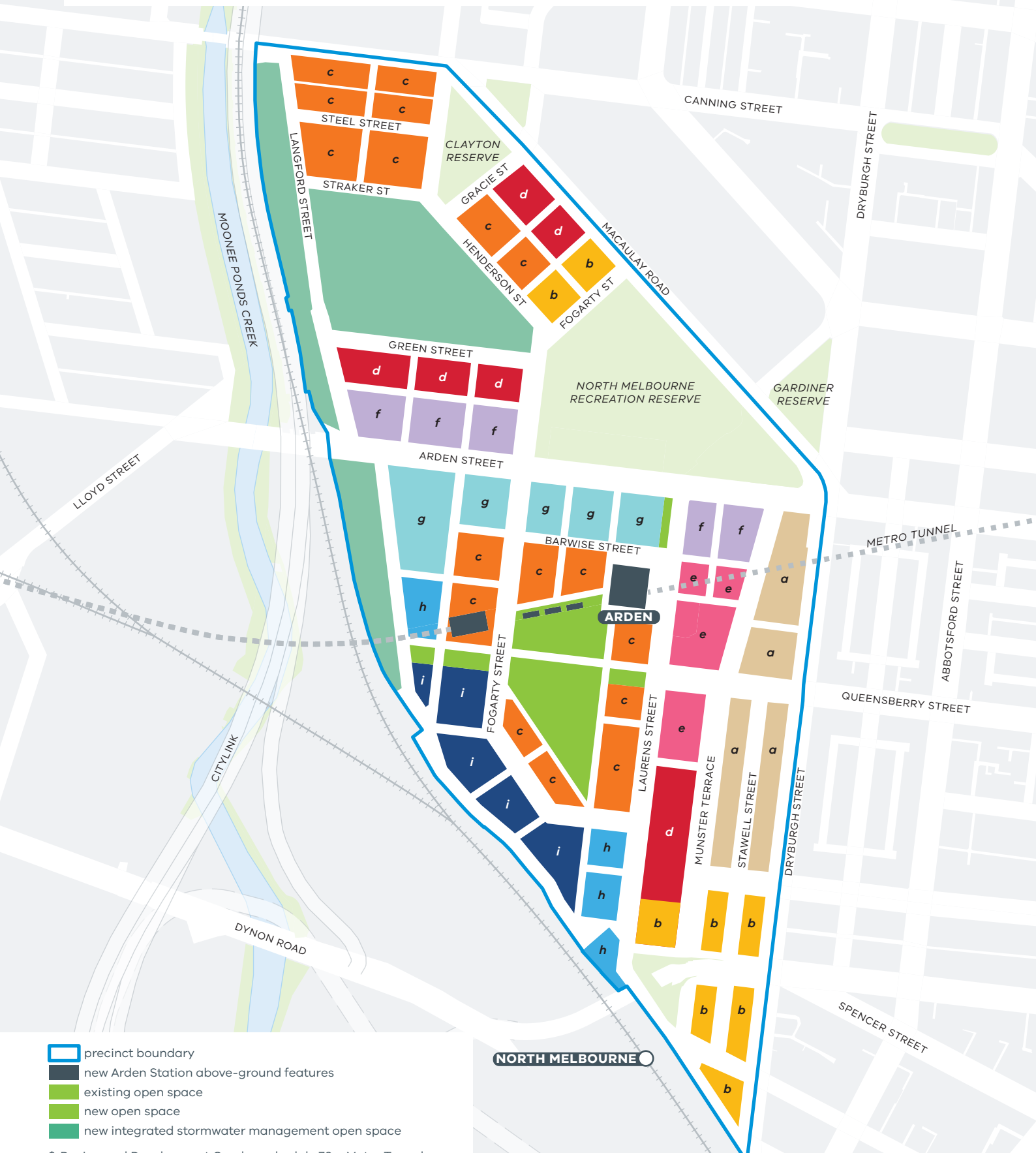


**Figure 25** Example of heritage infill development at the High Line, New York.



**Figure 26** Example of fine grain ground floor development with a positive interface to the street in Melbourne.

## Plan 6 Arden's potential built form outcomes, floor area ratios, building height ranges and other built form controls



- precinct boundary
- new Arden Station above-ground features
- existing open space
- new open space
- new integrated stormwater management open space

\* Design and Development Overlay schedule 70 – Metro Tunnel Project – Infrastructure Protection Areas applies to land above the Metro Tunnel. The maximum height of buildings within DDO70 will be subject to the design clearance and loading allowance of the tunnel.

**Note:** Further built form analysis will be carried out for the Final Arden Structure Plan to test and refine the FARs and how they work with the proposed height and other built form controls.

**NORTH MELBOURNE**



	DESIRED OUTCOME	MAXIMUM POTENTIAL FLOOR AREA RATIO (FAR)	POTENTIAL BUILDING HEIGHT RANGE	OTHER POTENTIAL BUILT FORM CONTROLS
<b>Laurens Street</b>				
<b>a*</b>	Low rise, mid-density development to respect adjacent existing heritage area	4:1	3–6 storeys	<ul style="list-style-type: none"> <li>• Setback above 4 storey street wall</li> </ul>
<b>Arden North – adjacent to North Melbourne Recreation Reserve</b>				
<b>Laurens Street – Interface with West Melbourne Structure Plan as per C309 controls</b>				
<b>b</b>	Mid-rise, mid-density development with overshadowing controls for North Melbourne Recreation Reserve	5:1	4–8 storeys	<ul style="list-style-type: none"> <li>• Setback above 4 storey street wall</li> </ul>
<b>Arden North &amp; Arden Central – core around new open space</b>				
<b>c*</b>	Mid-rise development with overshadowing controls for Clayton Reserve and the new open spaces proposed in Arden North and Arden Central	6:1	6–15 storeys	<ul style="list-style-type: none"> <li>• Setback above 6 storey street wall adjacent to open space</li> </ul>
<b>Arden North</b>				
<b>Laurens Street</b>				
<b>d</b>	Mid to high rise development, mixed typologies including hybrid development (e.g. perimeter block with tower)	7:1	12–18 storeys (Arden North)	<ul style="list-style-type: none"> <li>• Setback above 4 storey street wall along Munster Terrace</li> <li>• Front, side and rear setbacks</li> </ul>
	Overshadowing controls of North Melbourne Recreation Reserve and proposed Munster Terrace linear park		8–16 storeys (Laurens Street)	
<b>Laurens Street</b>				
<b>e*</b>	Predominantly mid-rise development, transitioning from Munster Terrace to Arden Central	8:1	10–16 storeys	<ul style="list-style-type: none"> <li>• Setback above 4 storey street wall along Munster Terrace</li> <li>• Front, side and rear setbacks</li> </ul>
<b>Arden North</b>				
<b>Laurens Street</b>				
<b>f</b>	High-rise development fronting Arden Street	9:1	12–20 storeys	<ul style="list-style-type: none"> <li>• Setback above 6 storey street wall along Arden Street</li> <li>• Setback above 4 storey street wall along Fogarty Street and Munster Terrace</li> <li>• Front, side and rear setbacks</li> </ul>
<b>Arden Central</b>				
<b>g</b>	Mid to high rise development, mixed typologies for innovation uses including hybrid development (e.g. perimeter block with tower).	10:1	8–25 storeys	<ul style="list-style-type: none"> <li>• Setback above 6 storey street wall along Arden Street and Fogarty Street extension</li> <li>• Front, side and rear setbacks</li> </ul>
<b>h*</b>	Mid to high rise development, mixed typologies including hybrid development (e.g. perimeter block with tower)	12:1	20–35 storeys	<ul style="list-style-type: none"> <li>• Setback above 6 storey street wall along Fogarty Street extension.</li> <li>• Front, side and rear setbacks</li> </ul>
<b>i</b>	High rise development, mixed typologies including hybrid development (e.g. perimeter block with tower)	15:1	30–40 storeys	<ul style="list-style-type: none"> <li>• Setback above 6 storey street wall.</li> <li>• Front, side and rear setbacks</li> </ul>



Figure 27 Artist's impression of Arden in the context of the central city in the background. Indicative only for illustrative purposes.





**Figure 28** Artist's impression of the view looking north from the southern end of the new neighbourhood park in Arden Central. Indicative only for illustrative purposes.



**Figure 29** Artist's impression of the integrated stormwater management open space in Arden North. Indicative only for illustrative purposes.



**Figure 30** Artist's impression looking west out of the main station building. Indicative only for illustrative purposes.

## OBJECTIVE 6

### Recognise and celebrate the valued built form heritage and character of Arden\*.

There is an abundance of local heritage within Arden, reflecting the evolution of residential and industrial development in the area. From the iconic Weston Milling site through to individual cottages, the precinct has a wealth of history that can be woven into the future fabric of the place. There will be a need to protect locally significant heritage sites from unreasonable impacts from neighbouring development. Heritage sites that are of a contributory nature will offer opportunities for sensitively designed adaptive reuse of these spaces, so that they continue to offer value in a changing environment.

\* Recognising, protecting and interpreting Aboriginal cultural values and heritage in the planning and design for Arden is discussed in Objective 3.

## STRATEGY 6.1

Protect and enhance heritage features of the precinct which are identified in the Melbourne Planning Scheme as being of significance.

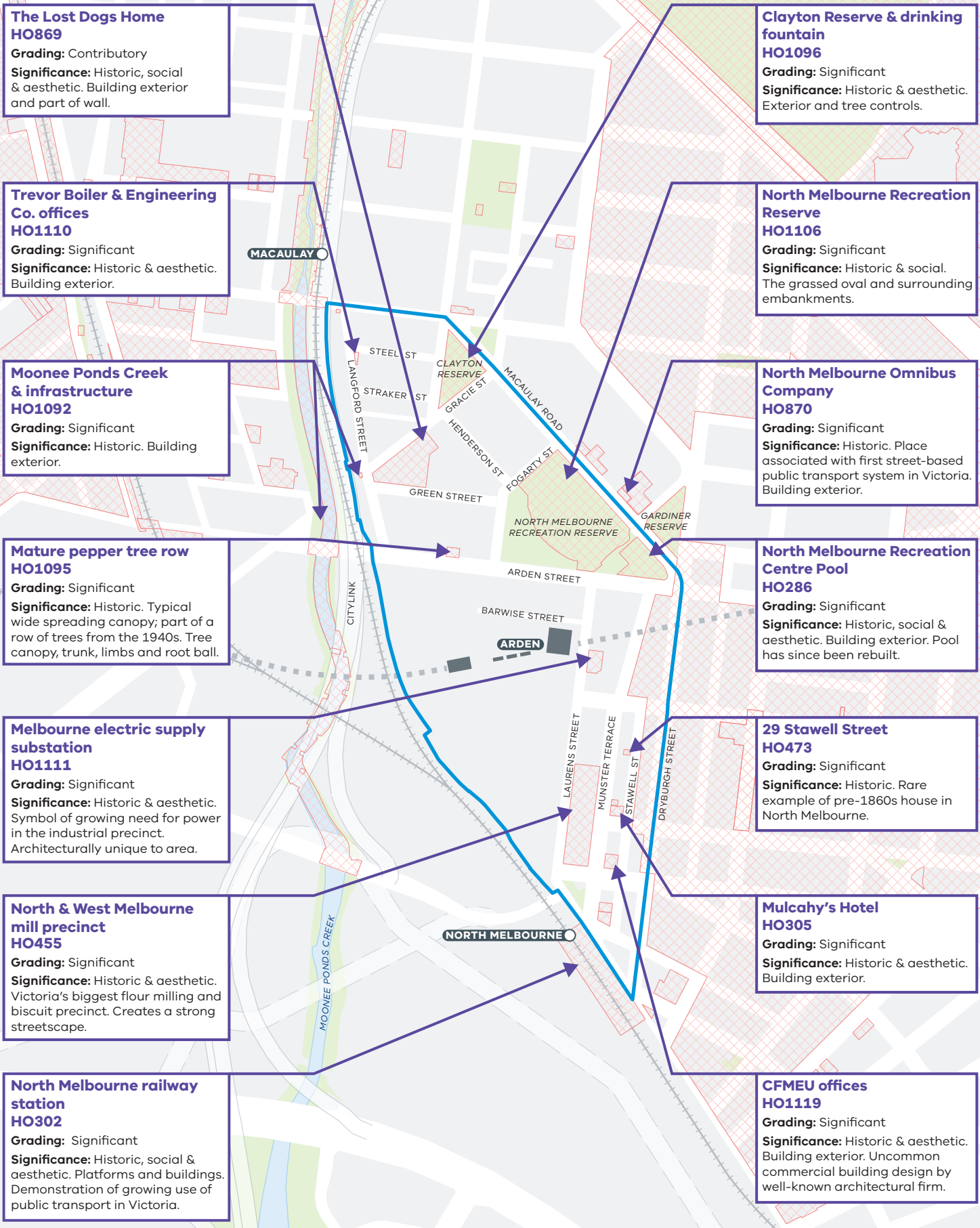
## STRATEGY 6.2

Plan for heritage buildings to be incorporated sensitively into new development, supporting adaptive re-use where the design is of a high quality and reflects the heritage elements of the site and surrounds.



Figure 31 Examples of Arden's built form heritage features.

## Plan 7 Arden's heritage features



**The Lost Dogs Home  
HO869**  
**Grading:** Contributory  
**Significance:** Historic, social & aesthetic. Building exterior and part of wall.

**Trevor Boiler & Engineering Co. offices  
HO1110**  
**Grading:** Significant  
**Significance:** Historic & aesthetic. Building exterior.

**Moonee Ponds Creek & infrastructure  
HO1092**  
**Grading:** Significant  
**Significance:** Historic. Building exterior.

**Mature pepper tree row  
HO1095**  
**Grading:** Significant  
**Significance:** Historic. Typical wide spreading canopy; part of a row of trees from the 1940s. Tree canopy, trunk, limbs and root ball.

**Melbourne electric supply substation  
HO1111**  
**Grading:** Significant  
**Significance:** Historic & aesthetic. Symbol of growing need for power in the industrial precinct. Architecturally unique to area.

**North & West Melbourne mill precinct  
HO455**  
**Grading:** Significant  
**Significance:** Historic & aesthetic. Victoria's biggest flour milling and biscuit precinct. Creates a strong streetscape.

**North Melbourne railway station  
HO302**  
**Grading:** Significant  
**Significance:** Historic, social & aesthetic. Platforms and buildings. Demonstration of growing use of public transport in Victoria.

**Clayton Reserve & drinking fountain  
HO1096**  
**Grading:** Significant  
**Significance:** Historic & aesthetic. Exterior and tree controls.

**North Melbourne Recreation Reserve  
HO1106**  
**Grading:** Significant  
**Significance:** Historic & social. The grassed oval and surrounding embankments.

**North Melbourne Omnibus Company  
HO870**  
**Grading:** Significant  
**Significance:** Historic. Place associated with first street-based public transport system in Victoria. Building exterior.

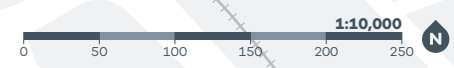
**North Melbourne Recreation Centre Pool  
HO286**  
**Grading:** Significant  
**Significance:** Historic, social & aesthetic. Building exterior. Pool has since been rebuilt.

**29 Stawell Street  
HO473**  
**Grading:** Significant  
**Significance:** Historic. Rare example of pre-1860s house in North Melbourne.

**Mulcahy's Hotel  
HO305**  
**Grading:** Significant  
**Significance:** Historic & aesthetic. Building exterior.

**CFMEU offices  
HO1119**  
**Grading:** Significant  
**Significance:** Historic & aesthetic. Building exterior. Uncommon commercial building design by well-known architectural firm.

precinct boundary  
 Heritage Overlay



## OBJECTIVE 7

### Encourage buildings that remain adaptable as uses change over time.

Buildings in Arden will need to respond to changes in technology and the way we live and work over time. As spaces such as car parking become redundant, they should be easily adaptable to alternative uses to avoid unnecessary demolition and associated environmental impact through building obsolescence. Similarly, buildings should be adaptable to accommodate new uses and needs, such as changing ways of working. Flexibility in building design will be critical to achieving this objective.

### STRATEGY 7.1

Require that any new car parking facilities can be adapted to future habitable buildings for other uses, including internal layouts, adequate floor to ceiling heights and avoidance of sloping or excessively deep floorplates which preclude future use.

### STRATEGY 7.2

Require that highly specific building configurations, such as student accommodation and hotels, use structural design systems which enable conversion to other uses should needs change over time.

### STRATEGY 7.3

Require that commercial buildings be designed to enable subdivision of floorplates into smaller tenancies over time through the placement and configuration of cores, atria and other elements in response to evolving workplace patterns.

### STRATEGY 7.4

Design all buildings to exceed minimum required life expectancies and aim for at least 100 years of structural performance (considering future climate scenarios) with a higher expected turnover of interior fit-out.



**Figure 32** Sydney's competitive design competition process has resulted in buildings that deliver higher design quality and innovation and contribute to an improved public realm. (Source: Martin Siegner)

## OBJECTIVE 8

### Ensure design excellence is achieved for key strategic sites within Arden.

Design excellence describes projects that demonstrate exceptional standards of architecture, landscape architecture and urban design, befitting of the intended role of Arden – and goes beyond the already-set expectation of high quality and exemplary urban design and built form on all sites (as set out in the *Arden Vision* and Objectives 4 and 5).

Design excellence ensures that buildings on key sites in Arden demonstrate an exceptional standard of design innovation and creativity. These buildings should aspire to be generous to the public realm and contribute to, what will in time, become our future heritage. Buildings of outstanding quality and character have an enduring legacy, influencing the character of an area, its liveability, attractiveness and quality of place.

Design excellence will be measured by the function, liveability, sustainability and public contribution of buildings and urban spaces. Design excellence will be required for strategic sites in Arden as defined by criteria or attributes which could include the following:

#### Development scale

- Where a development exceeds a threshold scale (e.g. gross floor area), capital investment (e.g. gross realisation value), building height or site size.

#### Sensitivity criteria

- Identified gateway location
- Location on or adjacent to a heritage property
- Master-planned development comprising multiple stages
- Adjacent to public spaces or major public infrastructure such as railway stations, civic buildings etc.

The final criteria and/or provisions that trigger the requirement for design excellence and identification of key strategic sites in Arden will be identified in the final structure plan and implemented through the subsequent planning scheme amendment. The requirements will ensure that planning applications are assessed after one of the following processes has taken place:

#### Design competitions

The establishment of mandatory design competitions for strategic sites and civic works can foster design excellence. A well-managed competitive design process can enable the testing of options to ensure the best development outcome for a given site. Guidelines will be prepared to inform design excellence competitions in Arden and will include the calculation of potential development incentives for pursuing a competition.

#### Design review panel

An independent expert design review enables peer-to-peer assessment by design experts whose knowledge, experience and industry credibility provide leverage to support outcomes that achieve design excellence.

An independent expert panel review of projects on strategic sites could be required at pre-lodgement and at key approval phases where the impact is greatest. Early engagement of the panel provides the best opportunity to increase the quality of a design proposal.

#### STRATEGY 8.1

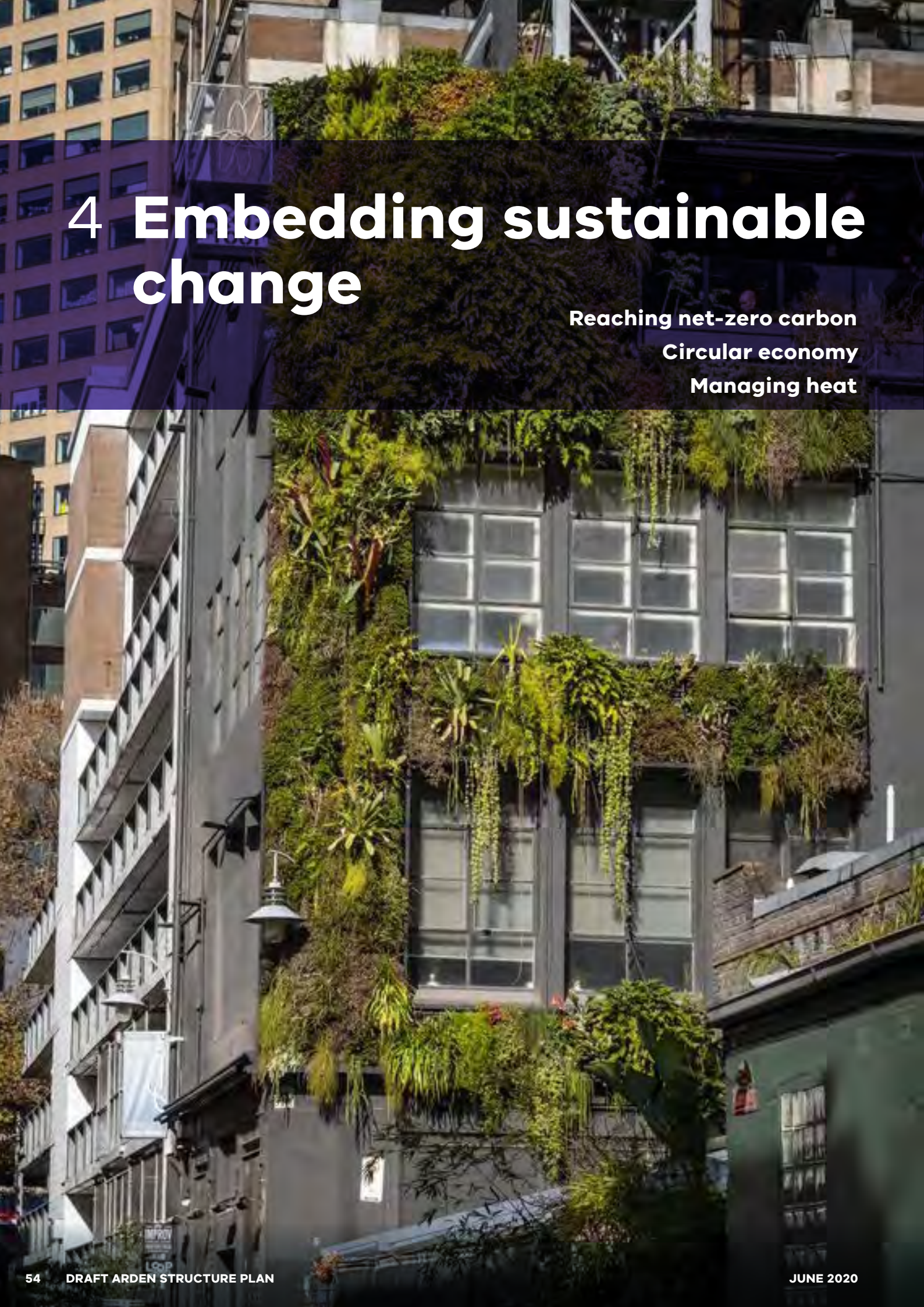
Require strategic sites to deliver design excellence through either a design competition or design review panel.

#### STRATEGY 8.2

Prepare guidelines to inform design excellence competitions in Arden.

#### STRATEGY 8.3

Work with the Office of the Victorian Government Architect to strengthen the quality of design review of projects within Arden, either through the Victorian Design Review panel process or through a new design review panel.



# 4 Embedding sustainable change

Reaching net-zero carbon  
Circular economy  
Managing heat

***Best practice standards for environmental, social and economic sustainability will underpin planning for the new communities and buildings, making Arden an exemplar of sustainable urban renewal.***

***– Arden Vision, 2018.***

Arden will be an innovator and leader in sustainable urban renewal. Sustainability is embedded in every decision of the plan including transport, building design, water management, the public realm and open space. Sustainability will be a highly visible part of the identity of Arden.

Many of Australia's leading developers and investors are setting targets to transition their portfolios to net-zero carbon by 2030 and are increasingly producing carbon neutral buildings.

Better building practices reduce the costs of owning and operating buildings, reduce the cost of expensive future retrofits, and reduce the cost of purchasing carbon offsets.

Arden's development will harness this momentum to demonstrate new ambition and scale.

The result will be a precinct that is cool, green, celebrates water in the landscape, demonstrates world leading building design and has a visible connection with nature.

The Victorian Government and the City of Melbourne recognise the importance of the Arden Precinct as setting the standard for urban renewal in Melbourne and aspire to achieve greater sustainability outcomes. The City of Melbourne aspires to be a net-zero carbon municipality by 2040. The final *Arden Structure Plan* will set out the confirmed targets for sustainability, subject to the refinement of technical studies, feasibility testing and intra-government consultation.

## **OBJECTIVE 9**

**Establish strong environmental governance in Arden that provides certainty, accountability and transparency to achieve the precinct's net-zero carbon target.**

Coordination and partnership between private industry and government will be critical to delivering on many of the precinct scale initiatives that are central to achieving net-zero carbon emissions. The significant government role in the development of the precinct offers the opportunity to negotiate partnerships, facilitate outcomes, and will assist in achieving a 6 Star rating using the Green Star Communities tool.

A coordinated, precinct-wide approach to sustainability will enable major infrastructure projects to be delivered, enable previously unachievable disclosure requirements to be enforced, and accurately monitor and evaluate performance to ensure accountability and adaptability. Beyond locking in a net-zero carbon pathway, strong governance will help to capitalise on the precinct's leading environmental credentials. The sale or lease of any government land or property can be used to enforce a contractual carbon target requiring the zero-carbon performance of development and use.

### **STRATEGY 9.1**

Require large developments to prepare an operational management plan encompassing energy, transport, water, waste and climate resilience.

### **STRATEGY 9.2**

Investigate requirements for annual public disclosure of energy operating performance of all developments. This may be extended to water, transport and waste over time.

### **STRATEGY 9.3**

Embed emissions reduction targets within development agreements and leasing arrangements to ensure outcomes.

## **OBJECTIVE 10**

**Facilitate the delivery of precinct-scale infrastructure and centralised facilities that makes achieving building scale targets easier.**

The relative 'blank slate' of the large government land holdings provide the greatest opportunities to ensure the future sustainability of Arden. This is one of the defining features that enable Arden to strive for and achieve greater levels of sustainability.

Early intervention with precinct-scale sustainable services infrastructure to support development will ensure sustainable outcomes and lift the cost burden of delivering highly sustainable buildings from developers by reducing the cost of expensive future retrofits. This support will make development in the precinct more feasible and buying and living in the precinct more affordable.

### **STRATEGY 10.1**

Facilitate a mechanism to procure a power purchase agreement to power the precinct with 100 per cent renewable energy. Opportunities exist for this agreement to also address the energy needs of surrounding neighbourhoods.

### **STRATEGY 10.2**

Facilitate the delivery of centralised or shared freight and waste management sites to reduce freight and services vehicle trips inside the precinct and better manage waste.

### **STRATEGY 10.3**

Require a commitment to precinct organics collection by the City of Melbourne or alternative private operator.

### **STRATEGY 10.4**

Deliver precinct infrastructure commensurate with the fossil fuel-free ambitions for the majority of precinct land uses.



## Case studies: sustainable development

### Barangaroo, Sydney

Barangaroo in central Sydney is a national leader in sustainable urban renewal and is comparable to Arden in context. Barangaroo is atop a new metro station, is wholly owned by NSW State Government and was delivered by a government agency, Barangaroo Delivery Authority. It is a dense, mixed-use transit-oriented development with leading environmental standards including carbon positive and water positive development, which means that the treatment of alternatively sourced water on site is equal or greater than water consumption

The project provides learnings for sustainability outcomes and delivery methods. It was delivered in partnership with developer Lendlease under a 99-year lease. This enabled government to retain ownership of the land and contractually enforce sustainability outcomes. Enshrined in the planning scheme and through the leasing agreement, Lendlease is required to deliver 6 Star Green Star ratings across all commercial buildings and 5 Star rated residential buildings.



Figure 33 The view of Barangaroo from the water.

A key feature of the development is a large shared basement which enables the centralisation and coordination of key servicing requirements such as waste management and collection and freight. This increases the efficiency of services and reduces waste through better waste management practices.

### Clichy-Batignolles, Paris

The Paris 'Ecodistrict' is a dense, inner-city urban renewal area due to be home to 7,500 residents and 12,000 jobs across 54 hectares by 2022. The former railway yard is owned by a mix of private and government landholders.

The *ecodistrict* label is achieved through its commitment to triple-bottom line sustainability targets, covering environmental, social and economic sustainability. Environmental efficiency is maximised through precinct-wide infrastructure, including Paris' first smart energy grid distributing a substantial amount of solar generated energy, and a district heating system using geothermal energy.

Beyond the environmental credentials, a commitment to generous provision of community infrastructure and open space, including 50 per cent affordable housing and a 10 hectare park at the heart of the site, makes the precinct highly inclusive in an increasingly expensive city. Other features of the project include water positive credentials, a pedestrian prioritised street network, mandated building energy performance standards and green infrastructure standards, and limits on car parking.



Figure 34 Top: Artist's impression of Ecodistrict. Above: Open space and residential uses interact.

## **OBJECTIVE 11**

### **Embed sustainable living and building practices in planning and built form controls.**

The draft structure plan takes a systems approach to ensure the precinct is aligned with a net-zero carbon and ecologically responsive future. In particular, building design, transport, public realm, open space and water management have been embedded with sustainable decision making to support these outcomes.

The success of new buildings will be measured through several recognised sustainability ratings tools. Combined with environmental disclosure requirements, these measures are recognised as part of a well-functioning building market that encourages the development of highly sustainable buildings, monitors performance and outcomes, and provides a credible means for projects to capitalise on these credentials.

#### **STRATEGY 11.1**

Require all new buildings to connect to precinct sustainability infrastructure (such as a third pipe system) if it is available at the time of development.

#### **STRATEGY 11.2**

Require all new buildings to achieve world-leading sustainability performance (such as 6 Star Green Star Design & As Built rating for larger buildings and 70% Built Environment Sustainability Scorecard rating for smaller buildings, or equivalent rating under comparable or updated systems).

#### **STRATEGY 11.3**

Require all new buildings to be 100 per cent electric (with exception to essential life science buildings where need is sufficiently justified).

## **OBJECTIVE 12**

### **Measure the performance of the precinct, its buildings and its occupants and be able to adapt to changes in climate, lifestyle and technology in the future.**

'Best practice' is inherently constantly changing. For Arden to continue as a leader and innovator in sustainability, the approach to sustainable development needs to be flexible and adaptable. Core to this is a culture of constant learning and improving. Disclosure standards and a monitoring and evaluation framework will enable data to be collected on the ongoing performance of the precinct against its targets, and strategies to be evaluated and adapted according to their performance. Buildings will be 'future-proofed' to ensure they can adapt to changes in lifestyle (such as the reducing dependence on private vehicle ownership) and the introduction of new technologies such as energy trading technology and electrification of homes.

#### **STRATEGY 12.1**

Require buildings to maximise flexibility to integrate current and future energy technologies and precinct infrastructure.

#### **STRATEGY 12.2**

Establish a robust monitoring and evaluation program across the precinct that will enable performance to be evaluated and approaches to be adapted.

### OBJECTIVE 13

#### Minimise waste production and water use, optimise reuse and recycling and encourage a circular economy in Arden.

To manage waste in Victoria the Victorian Government has prepared *A circular economy for Victoria* (2019) strategy.

A circular economy continually seeks to reduce the environmental impacts of production and consumption and gain more productive use from natural resources.

Resource use is minimised, and waste and pollution are avoided with good design and efficient practices. This reduces environmental impacts while maintaining or increasing the value people obtain from goods and services.

Products are designed so that they are durable and can be readily repaired, reused and recycled at the end of their lives.

Business models encourage intense and efficient product use, like sharing products between multiple users, or supplying a product as a service that includes maintenance, repair and disposal.

Innovations to increase resource productivity bring a range of benefits including jobs, growth and social inclusion to local, regional and global economies.

#### STRATEGY 13.1

Require all new developments to meet the City of Melbourne’s waste management guidelines.

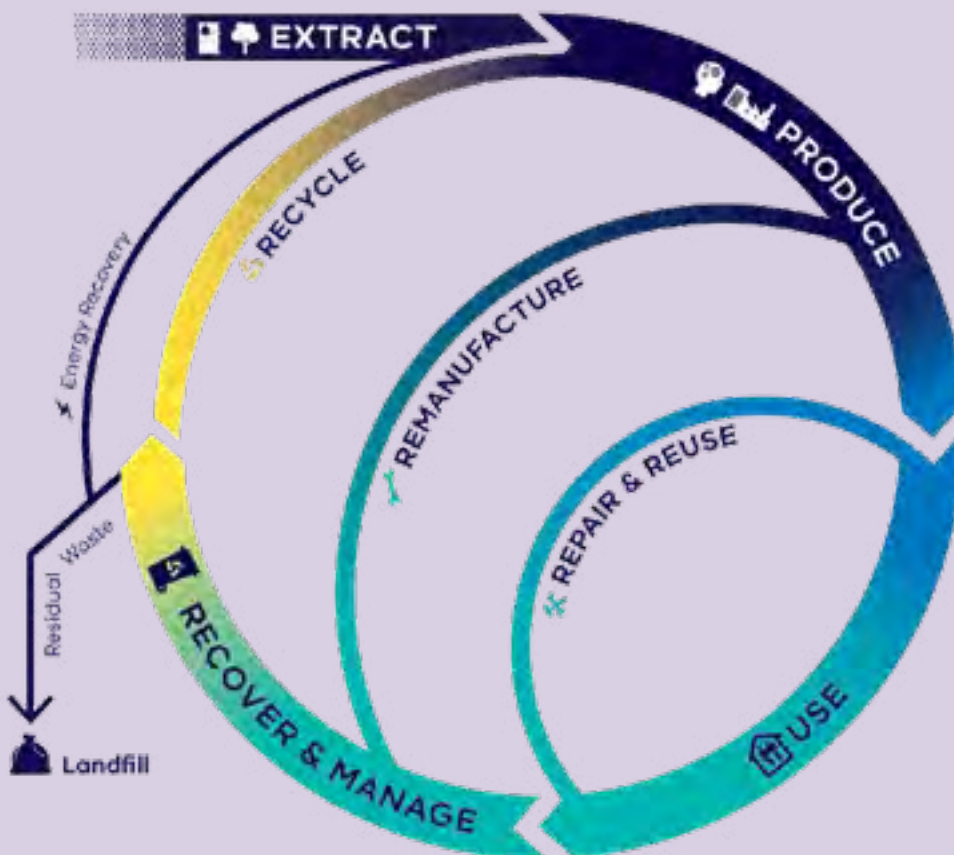
#### STRATEGY 13.2

Require all new developments to respond to a precinct wide waste management design.

#### STRATEGY 13.3

Minimise the use of virgin materials, maximise the recycled content of materials and increase the recycling of materials in the construction phase of new buildings.

### A circular economy



Around 43 per cent of waste in Victoria is generated from construction and demolition activities. There is a big opportunity in this sector to reduce waste and put recovered resources to better use.

Buildings and other civil infrastructure can be built with recovered materials and can be designed so that they can be adapted for different purposes throughout their lifetime and more readily separated and reused after demolition.

Approximately 3.9 million tonnes of recovered material are already used in road and other construction in Victoria. There is an opportunity to use more recycled materials in the construction of our public infrastructure.

Figure 35 Illustration of a circular economy, DELWP, *A circular economy for Victoria* (2019).

**OBJECTIVE 14**

**Mitigate the urban heat island effect in the design and delivery of the public realm and private developments accordant with desired urban greening outcomes and standards.**

The urban heat island effect describes the phenomena of hotter temperatures being recorded in urban areas that have high levels of impermeable surfaces and thermal mass, such as concrete. Melbourne is actively combatting this by ‘greening’ the public realm. This cools the environment by providing shading and transferring heat from the landscape.

Much of the landscape in Arden Central currently lacks canopy cover, with very few mature trees on the land near Arden Station. Many streets in Arden North currently have strong canopy cover, which will help that area of the precinct remain cool. Accordant with City of Melbourne’s *Urban Forest Strategy*, the whole of Arden will have a highly landscaped public realm that achieves a minimum canopy cover of 40 per cent by 2040 using species that are appropriate to Melbourne’s climate and needs as described in the strategy. Alternative water systems (Objective 19) will play a critical role in irrigating the urban forest sustainably, underpinning the effectiveness of these greening strategies.

Building design in Arden will also help to reduce the urban heat island effect through the use of greening, further enhancing the precinct’s liveability.



**Figure 36** Example of potential urban greening anticipated for Arden.

**STRATEGY 14.1**

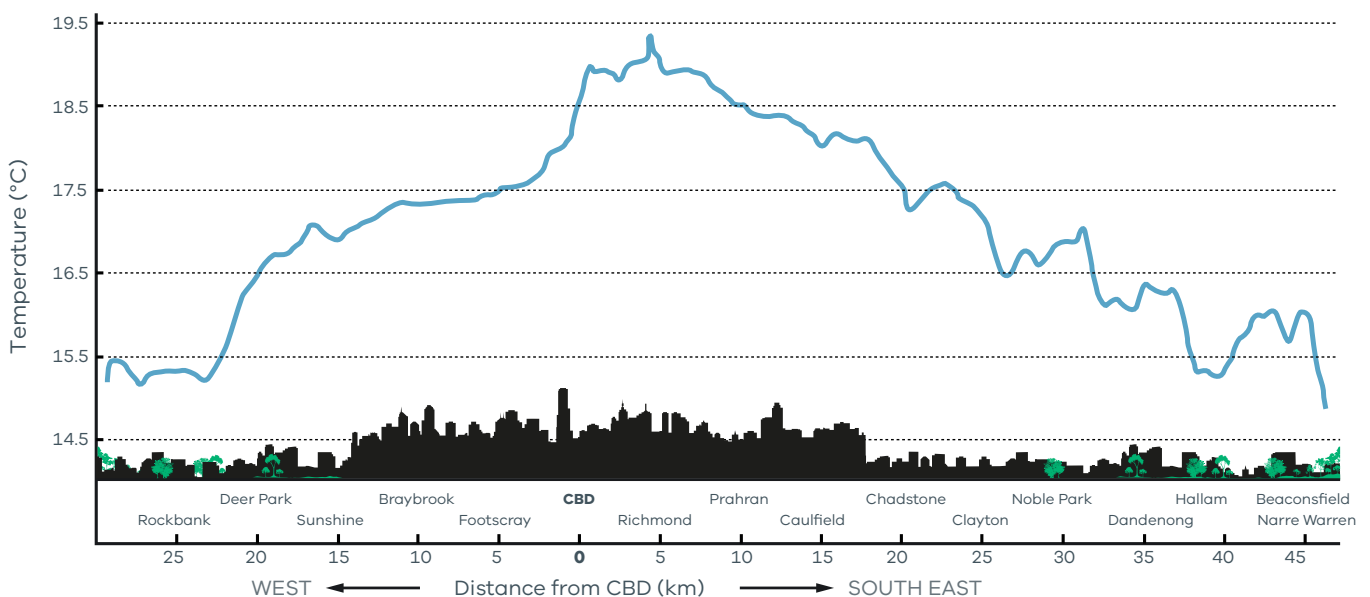
Design the public realm to provide urban cooling benefits through shading, planting and integrated water management for cooling and irrigation effects.

**STRATEGY 14.2**

Require all new buildings to use materials that minimise the urban heat island effect with a standard that at least 75 per cent of total project site areas should comprise of building or landscaping elements that increase the solar reflectance of the site.

**STRATEGY 14.3**

Require all new buildings to meet a standard of 40 per cent total site area as green cover comprising canopy and understorey planting, native and indigenous planting or maximises adjacent public realm cooling benefits, or an equivalent Green Factor tool score of 0.55.



**Figure 37** Illustration of the urban heat island effect across Melbourne and its suburbs. Source: *Urban Forest Strategy*, City of Melbourne.



Figure 38 Example of green infrastructure incorporated into the design of One Central Park, Sydney.

# 5 Prioritising active transport

Walking and cycling  
Public transport  
Parking



***Arden will provide direct and efficient connections in and around the precinct through safe and attractive public areas. This will include active and public transport networks that will complement the new Arden Station.***

***– Arden Vision, 2018.***

The new Arden Station will be the heart of the precinct, making Arden easy to access from anywhere in Melbourne via the new Metro Tunnel.

The *Arden Vision* includes targets for all trips to Arden to be 60 per cent public transport, 30 per cent walking and cycling and 10 per cent private vehicles.

Transport planning for the precinct is focussed on delivering great streets for walking and cycling (also known as active transport). To reinforce walkability, it is important that the public realm is prioritised for pedestrians, with limited opportunities for private vehicle circulation.

Arden's ambition is to deliver world class transport-oriented development that maximises public and active transport use by providing a connected local transport network that promotes sustainable transport choices and moves away from onsite carparking, making it easier for people to choose not to own a car

A vehicle circulation and precinct parking plan will manage the location and volume of car parking (at a maximum cap of 3,000 spaces) and set out a local transport network that limits vehicle circulation to reduce conflicts between pedestrians, cyclists, public transport services and private vehicle movements.

The planned density and diversity of land use within Arden provides an excellent opportunity for most local trips to be made by walking, cycling and public transport, and allows for the uptake of recent trends towards small electric transport options such as e-bikes and e-scooters. Retail, services and education will all be locally available, and accessible by a twenty-minute walk.

Arden's fully integrated transport network is designed to enable its net-zero carbon objectives.

## **OBJECTIVE 15**

**Provide space for high capacity public transport capable options connecting Arden into the expanding central city.**

Dedicated public transport lanes will allow for frequent, fast and reliable public transport services to and from Arden.

While at this stage it is too early to commit to a particular mode, dedicated road-space is set aside in the draft plan to facilitate its delivery. The high capacity public transport capable corridors outlined in this plan are aligned with Victorian Government's longer-term tram and bus planning and transport corridors proposed in the West Melbourne Structure Plan.

The extension of the high-capacity public transport capable corridor north of Arden Street along Fogarty Street, Henderson Street and Boundary Road will connect Arden to the suburbs of Macaulay, Travancore and Moonee Ponds. Laurens Street will become a key public and active transport route, connecting North Melbourne and Arden stations. Ireland Street will form a connection between Arden and West Melbourne.

### **STRATEGY 15.1**

Provide space to allow for the potential future delivery of high capacity public transport capable corridors along Laurens Street, Fogarty Street, Henderson Street and Boundary Road (south of Macaulay Road).

### **STRATEGY 15.2**

Implement improvements to local bus services to improve connections between Arden and surrounding suburbs in the short term.

### **STRATEGY 15.3**

Explore opportunities to reopen the northern entrance to North Melbourne Station for a more convenient and direct link to Arden.

## **OBJECTIVE 16**

**Provide safe, direct and connected protected cycling routes through and to the precinct.**

The Capital City Trail along Moonee Ponds Creek provides regional cycle access to the suburbs of Moonee Valley and Moreland (via Royal Park and the Upfield bike path) and on to Docklands, Footscray and Fishermans Bend. New cycling infrastructure constructed as part of the West Gate Tunnel project will provide a shared path from CityLink over the Moonee Ponds Creek and the rail corridor to Dryburgh Street.

Within the precinct, there will be four Strategic Cycling Corridors. These corridors are designed to improve cycling to and around major activity centres and are routes that cater for the highest cycling volumes while offering protection from other vehicles so that cyclists of all ages and abilities can confidently use them.

Improved cycling infrastructure on local streets will address deficiencies such as bike lane gaps at intersections and will be designed to be safe for all users.

### **STRATEGY 16.1**

Deliver Strategic Cycling Corridors along Arden Street, Queensberry Street, Langford Street and Laurens Street.

### **STRATEGY 16.2**

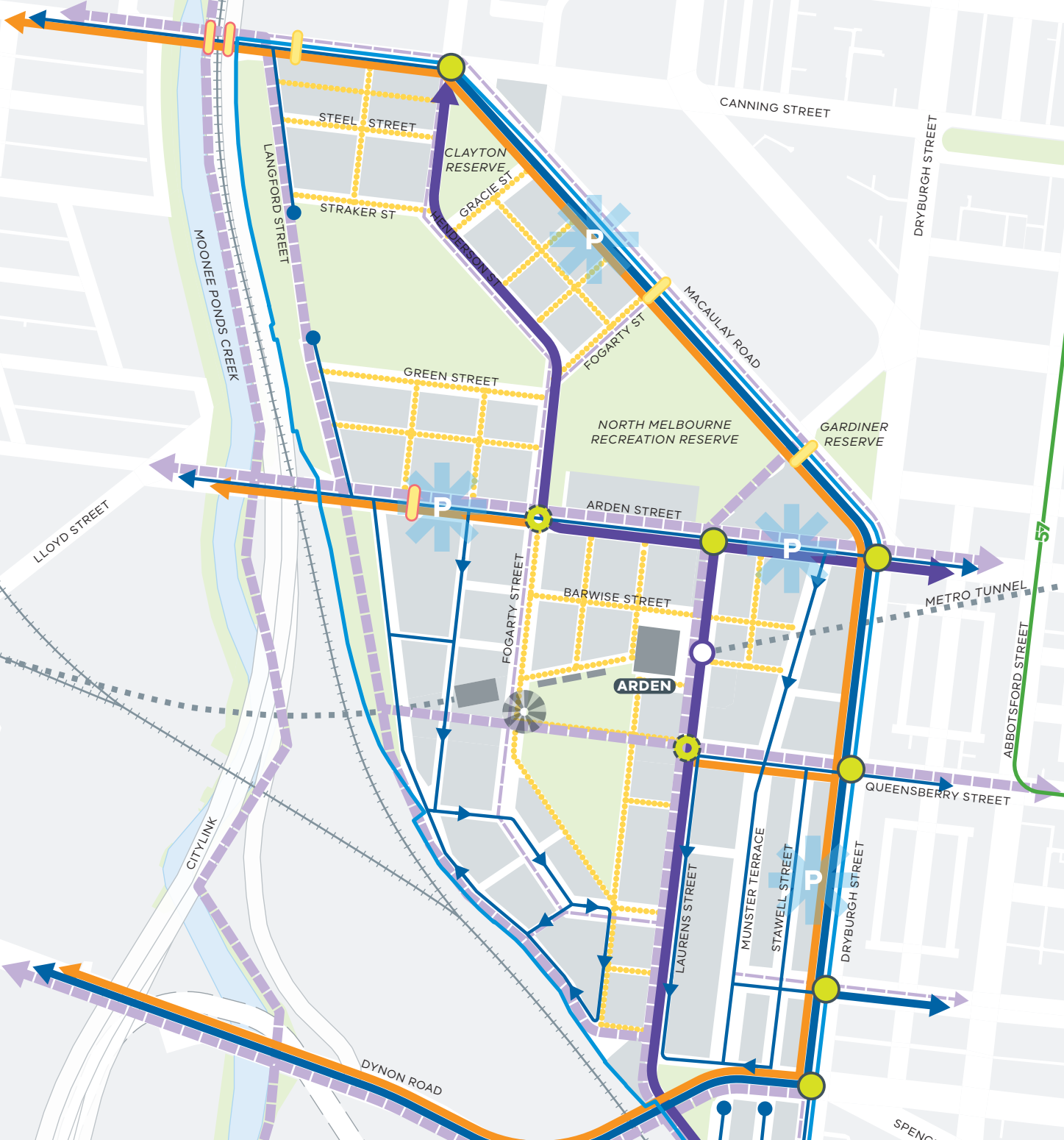
Deliver a dense network of local feeder bike lanes to complement the Strategic Cycling Corridors and provide access for bicycles to destinations within the precinct, including the proposed government primary school, community hubs and innovation hub.

### **STRATEGY 16.3**

Deliver safer intersections for bike riding by adopting designs which continue bicycle lanes up to and through intersections and provide physical separation for cyclists.

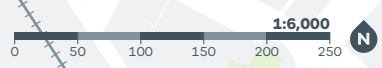


# Plan 8 Arden's transport network 2051



- precinct boundary
- existing rail & station
- Metro Tunnel & station
- existing tram network
- Strategic Cycling Corridor
- local cycling corridor
- high capacity public transport capable
- bus-capable
- pedestrian priority zone
- general traffic/freight
- local traffic
- one-way local traffic
- road closure
- indicative location of consolidated car parking facility
- potential location of future western station entry
- potential modal interchange
- pedestrian crossing – existing
- pedestrian crossing – future
- intersection – existing
- intersection – future

**NORTH MELBOURNE**



## **OBJECTIVE 17**

**New and existing streets will be pedestrian-friendly and provide comfortable, green links between open spaces and public transport routes and enhance the quality of the public realm.**

Residents, workers and visitors will be able to walk and cycle around Arden with ease, making active transport part of everyday life for the Arden community. Streets will provide quick and convenient walking and cycling connections between key spaces including Macaulay, Arden North Melbourne train stations, and the open spaces both within Arden and beyond. In addition streets, laneways and other in-between spaces play a legitimate role in providing space for recreation and other functions that have conventionally been the domain of public open space.

To encourage people to walk, ride bikes and spend time in the streets they need to be safe, interesting and comfortable.

Arden's streets and laneways surrounding the new station and open spaces will prioritise pedestrians, sharing the road with slow moving cyclists and occasional emergency and service vehicles. Green links will provide additional shading and opportunities for water sensitive urban design and biodiversity.

Fogarty Street will be a key north–south connector that enables movement throughout the precinct and connects Arden into West Melbourne in the south and Macaulay in the north. Queensberry Street will provide a direct connection to nearby Parkville and the North Melbourne Arts Precincts. As it reaches the train station. Queensberry Street will transform into a wide, shared pathway for pedestrians and cyclists to allow people to move throughout and enjoy the central open space safely.

### **STRATEGY 17.1**

Create walkable streets in Arden with many routes, crossings and through-block links that improve permeability and draw people into new spaces, consistent with block sizes outlined in the *Central Melbourne Design Guide*.

### **STRATEGY 17.2**

Create activated pedestrian-priority zones that provide shared space for pedestrians and slow-moving cyclists and service and emergency vehicles.

### **STRATEGY 17.3**

Deliver streetscape improvements to Queensberry Street and Fogarty Street to support their role as urban boulevards

### **STRATEGY 17.4**

Deliver public realm and urban greening improvements along the western edge of the Arden precinct to connect North Melbourne Station and Macaulay Station via a new green link.

### **STRATEGY 17.5**

Explore opportunities to integrate water sensitive urban design into streets and green links.

### **STRATEGY 17.6**

Explore opportunities to deliver centralised freight distribution and waste collection hubs to reduce the number of service vehicles entering the precinct.

### **STRATEGY 17.7**

Maximise personal safety and security through activation of ground floors around open spaces and key pedestrian routes and the use of Crime Prevention Through Environmental Design (CPTED) principles.



**Figure 39** Examples of safe, direct and efficient on- and off-road cycle connections.



**Figure 40** Slovenska Boulevard in Slovenia is an example of a high-quality shared street where people visit, meet and pass through. (Source: Landezine, 2016)

## **OBJECTIVE 18**

### **Minimise the impact of car parking and associated vehicular movements through Arden.**

To achieve the ambitious active transport targets for Arden, private vehicle use will be managed in the precinct. Parking management on a precinct level will assist in protecting Arden from excessive traffic and associated negative impacts.

The *Arden Transport Network Plan 2051* identifies potential locations to deliver consolidated precinct parking. Consolidated precinct parking facilities will provide car parking for occupants of the precinct (should they wish to acquire it) in a designated location rather than within individual buildings. This has several benefits, including reducing the cost of constructing parking in individual buildings, preventing ground floor carparks from detracting from the vibrancy of street life, increasing the pedestrianisation of parts of the precinct, and minimising the use of footpaths for vehicle cross overs or parking by scooters and motorbikes.

Over time, these facilities discourage the ownership of private vehicles and private vehicle trips by decoupling car parking from home ownership so that car parking is seen as an incremental cost to housing rather than an inclusion. It provides greater control over the number of cars that will be able to be housed in the precinct and ensures only those that need a car have to pay for parking, improving how car parking is shared.

These parking facilities will be located on the periphery of the precinct, outside of the main activity centres and denser living areas, making sustainable transport choices like public transport, cycling and walking more convenient than private vehicle trips and minimising the impact of vehicular traffic on the higher amenity areas of the precinct.

These facilities should also provide electric vehicle charging stations and share-car facilities for those that choose not to own a car.

This approach forms part of an integrated and more sustainable approach to transport access, supported by significant investment in transport choices, comprehensive planning to make cycling and walking convenient and safe and limited provision of car parking in individual buildings through maximum parking planning controls.

## **STRATEGY 18.1**

Prepare a *Vehicle Circulation and Precinct Parking Plan* which caps the supply of parking and directs parking into dedicated off-street parking hubs. This will be based on the principles outlined overleaf.

## **STRATEGY 18.2**

Ensure that appropriate parking is provided for disabled access at key destinations throughout the precinct.

## **STRATEGY 18.3**

Provide appropriate bicycle, motorbike and scooter parking within private developments to enable footpaths to be free from impediments.

## **STRATEGY 18.4**

Support shared transport schemes such as shared vehicles, e-bikes and e-scooters through private development and within the public realm in locations where it is readily accessible.

## **STRATEGY 18.5**

Support the flexible use of parking spaces within buildings and on the street.

## Arden's precinct-wide car parking plan – key principles

- Off-street car parking to be designed, located and managed to ensure flexible and efficient use, and to minimise the need for vehicular movements through the high amenity core of the precinct.
- Off-street car park developments to provide electric vehicle charging stations from the outset and demonstrate the capacity to progressively lift rates to meet future demand.
- New retail, commercial and community buildings without onsite parking must incorporate (and preferably exceed) minimum bicycle parking provision based upon anticipated peak occupancy/visitor rates.
- Ownership of off-street car parking space provision to be decoupled from single dwellings/tenancies, to ensure flexible and efficient use.
- Electric vehicle charging should be located in consolidated off-street car parking facilities.
- On-street parking, where provided, will also be limited, instead prioritising kerbside access for deliveries and drop-offs, car-share schemes and disability parking.
- Parking controls (fees and time limits) will be used to ensure efficient use of on-street parking, consistent with the plan objectives. Parking permits for residents and commercial/other occupiers will not be provided.
- Appropriate management of parking controls in streets surrounding Arden to prevent parking overspill.



# 6 Celebrating water

Managing flooding  
Urban water cycle



*Arden will incorporate water as a feature of the landscape through innovative and creative flood mitigation solutions. The Moonee Ponds Creek corridor will be valued as an environmental, recreational and active transport asset, and an integrated water management approach will ensure that water is shared and reused across the precinct.*

*– Arden Vision, 2018.*

Water is a fact of life in Arden and demands a comprehensive and multi-faceted approach to ensure the precinct is safe and feasible to develop.

Much of the land in Arden is impacted by flooding in a major rain event and during frequent nuisance flooding events. Flows from across Melbourne's inner north-west impact the precinct and converge on the lowest lying areas behind the existing levee banks near the Arden Street bridge and along the edges of Moonee Ponds Creek corridor. The current drainage system is not designed to manage this stormwater, resulting in unsafe flood depths in some of the lowest lying areas of the precinct.

Conveyance of water along streets, strategic flooding, and the use of natural-based water strategies to hold and filter water will play an important role in managing water and providing opportunities for urban cooling, water quality improvements and restoring biodiversity.

## Flood risk in Arden

Arden is affected by flooding from several different sources as shown in Plan 9.

Arden is low lying and subject to flooding both from stormwater runoff from surrounding higher areas, and flooding from the Moonee Ponds Creek. Existing levees along the creek provide some flood protection however, they are often breached during heavy rain events. Stormwater runoff converges at the levees but is unable to discharge into Moonee Ponds Creek once it is full.

Flood modelling indicates that in extreme storm events, the majority of the precinct would be affected by flooding.

Various authorities have responsibility for planning for the management of flood risks in Arden.

The Land Subject to Inundation Overlay (shown in Plan 9) identifies where planning applications may be affected by flooding and should be referred to Melbourne Water for consideration. These overlays are currently being updated by the City of Melbourne and will be released in late 2020.

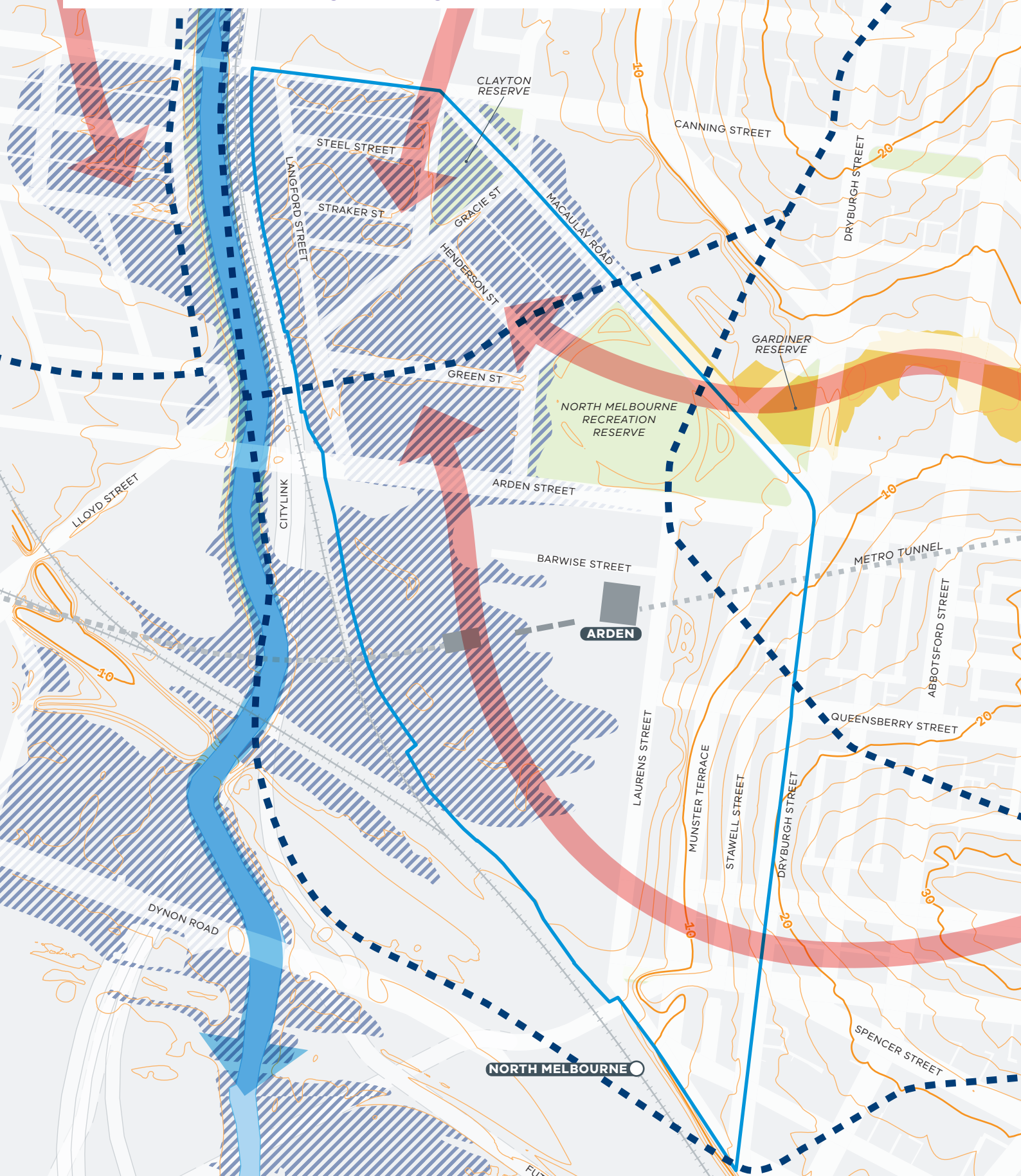
DELWP's *Guidelines for Development in Flood Affected Areas* (February 2019) specifies the protection of human life and health and to provide safety from flood hazard as the main objectives for flood management. Melbourne Water is the relevant flood plain management authority related to Moonee Ponds Creek while council is the relevant authority for local drainage and flooding.



Figure 41 Flooding of the Moonee Ponds Creek at the Macaulay Road Bridge.



# Plan 9 Sources of flooding impacting the Arden precinct



- precinct boundary
- Land Subject to Inundation Overlay
- Special Building Overlay
- existing open space
- Moonee Ponds Creek water flow to sea
- overland flow
- catchment



## OBJECTIVE 19

**Safely manage the risk of flooding to future development of Arden through innovative and creative flood management solutions in the natural landscape and built environment.**

Water will be a positive, visible and ephemeral contribution to the public realm and open space, including along Arden Street, Queensberry Street and Fogarty Street. Celebrating water in the landscape will have multiple benefits by slowing and storing stormwater and providing ecological regeneration and enhanced biodiversity.

A central feature of Arden North will be a new integrated stormwater management open space which will be designed to flood during heavy rain events. This space will also provide a range of recreation, biodiversity, community and cultural uses.

Water storage areas to the west of Langford Street in Arden North and along the Upfield railway corridor in Arden Central will provide further opportunities for passive recreation and urban greening and cooling.

Detailed design work will be undertaken to finalise the design of open spaces, including the integrated stormwater management open spaces. Engagement with the community and traditional custodians will form part of this process to ensure that the spaces reflect the cultural values and aspirations for the area.

## STRATEGY 19.1

Implement the precinct-wide flood management strategy for Arden (shown in Plan 10).

## STRATEGY 19.2

Manage flooding risk where residual flooding exceeds safe levels through planning controls and guidance to deliver development safe from flooding, achieves good quality urban design outcomes and is equitably accessible.

## STRATEGY 19.3

Investigate opportunities for the integration of water sensitive urban design in streets and open spaces to provide for passive irrigation of street trees and provide urban greening.

## STRATEGY 19.4

Provide for universal access to the whole of the public realm and positively respond to any necessary level changes that are required for drainage purposes between development and the public realm.



**Figure 42** Example of potential water sensitive urban design. Chulalongkorn University Centenary Park stores water during rain events to help manage urban flooding in Bangkok. (Source: Landezine, 2016)



**Figure 43** Darling Harbour, Sydney is an example of a shared path and civic space that combines water management open spaces with green space in the public realm. (Source: Landezine 2018)

## Arden flood management strategy

A drainage strategy to manage the impacts of flooding is being prepared by Melbourne Water and will ensure that local stormwater runoff and riverine flooding from Moonee Ponds Creek can be managed as safely as possible at a precinct-wide level and allow for the development of other land in the precinct.

The Arden flood management strategy (described in Plan 10) will include natural and built infrastructure works to manage the risk of flooding and unlock development in the precinct. This combination of works is required to ensure flooding is managed safely in Arden while also delivering opportunities for urban greening, open space, recreation and biodiversity. The works in the Arden flood management strategy include:

- Raising and extending the levees for the Moonee Ponds Creek
- Defining flow paths along key streets and in the landscape, including Fogarty Street and Queensberry Street. There is the opportunity to integrate flow paths with water sensitive urban design to capture, store, treat and convey water.
- Creating Integrated stormwater management open spaces which will double as open space
- Installing below-ground flood storage in an existing recreation area
- Upgrading pump stations and pipes
- Improvements to the public realm including raising identified streets
- Raising floor levels of buildings in some locations to manage residual flooding risk.

A range of mechanisms will be explored to collect financial contributions to fund the flood management works, including a Development Services Scheme. Melbourne Water will consult on its proposed scheme alongside consultation on the final Arden Structure Plan and associated planning scheme amendment.

Planning will seek to deliver Arden's Flood Management Strategy in coordination with the aspirations of the Moonee Ponds Creek Strategic Opportunities Plan.

Landowners to be affected by this strategy will be contacted separately by Melbourne Water who will provide further information.

## Permitting new development

Melbourne Water is the relevant authority relating to flooding within the Moonee Ponds Creek Floodplain, and the City of Melbourne is the relevant drainage authority outside of these areas. To ensure public safety and the appropriate development within floodplains, Melbourne Water requires:

### Access

All flood-affected properties will need to ensure access if possible where depth of flooding is less than 0.4 metres deep for the 1 per cent AEP event.

Where access depth is more than 0.4 metres deep but less than 0.8 metres deep, this may be acceptable if the duration that the flood depth exceeds 0.4 metres is less than two hours.

### Setting floor levels

It is likely that building floor levels for some future development within the Arden–Macaulay precinct will need to be raised above the footpath level to prevent buildings being flooded.

Under the *Victorian Building Regulations 2005*, floor level heights for buildings should be set a minimum 300mm freeboard above the applicable flood level, or as otherwise determined by the floodplain management authority. Requirements differ depending on whether the development is in a floodplain or an overland flow path.

Appropriate freeboard\* would be:

- 0.6 metres above 1 per cent AEP flood level when pumps fail where properties are impacted by ponded stormwater (such as behind the Moonee Ponds Creek levees)
- 0.3 metres above 1 per cent AEP flood level when pumps fail where properties are impacted by overland flow paths.

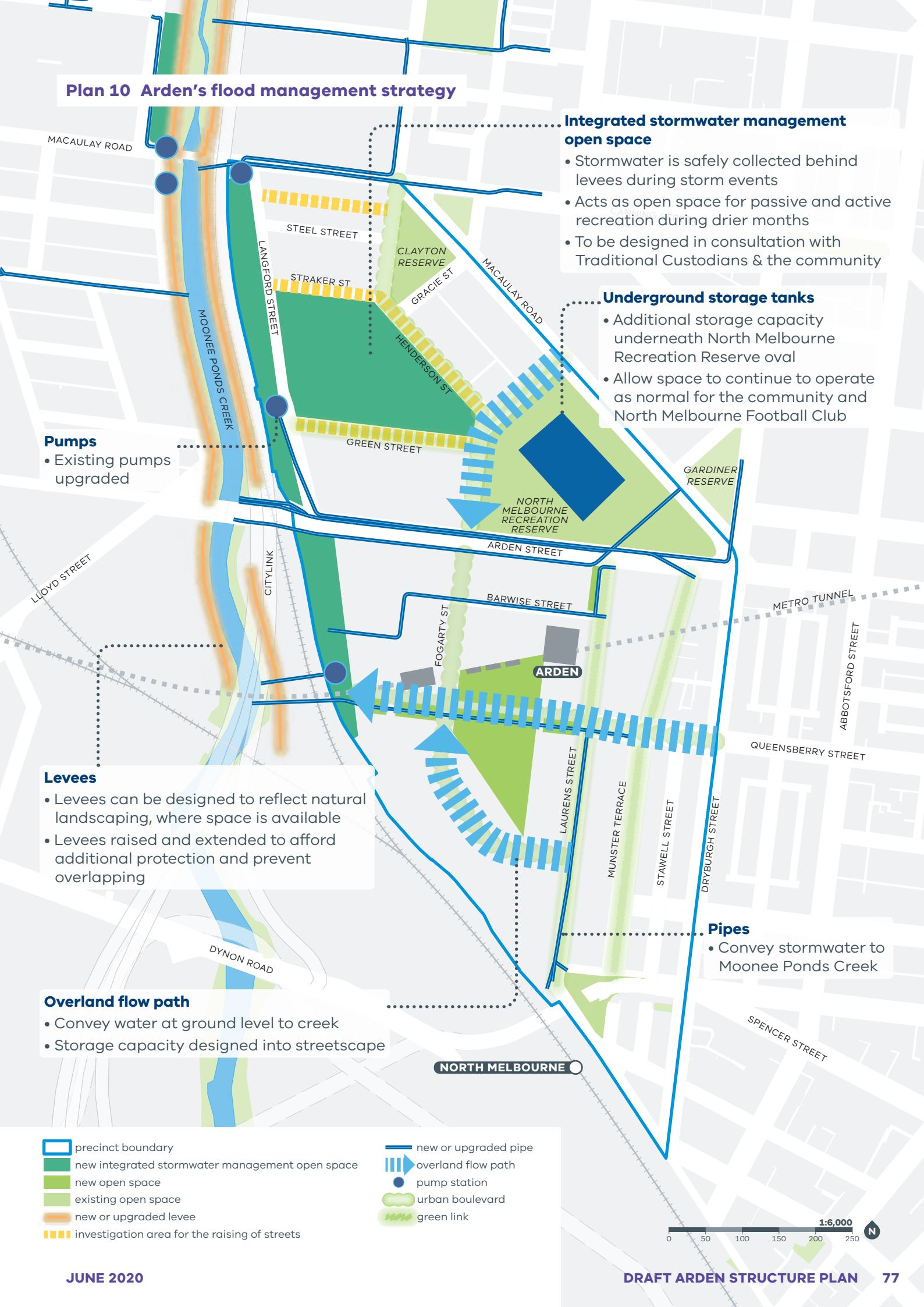
As the precinct is impacted by sea level rise, the minimum floor levels will be 3 metres Australian height datum (AHD) for sensitive uses. Where the ground floor use is a non-sensitive use, the 0.6 metre freeboard may not be required.

Higher floor levels will be required where the local 1 per cent AEP flood level, when the pumps fail, exceeds 3.0 metres AHD.

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\* Freeboard: A factor of safety above design flood levels, typically used in relation to the setting of floor levels, and levee crest heights. It is usually expressed as a height above the design flood level. Freeboard tends to compensate for flood prediction uncertainties and for factors which increase flood levels, such as a wave action, localised hydraulic effects, settlement of levees. It should not be relied upon to provide protection for events larger than the design flood. (Flood Victoria, 2020)

## Plan 10 Arden's flood management strategy



### Integrated stormwater management open space

- Stormwater is safely collected behind levees during storm events
- Acts as open space for passive and active recreation during drier months
- To be designed in consultation with Traditional Custodians & the community

### Underground storage tanks

- Additional storage capacity underneath North Melbourne Recreation Reserve oval
- Allow space to continue to operate as normal for the community and North Melbourne Football Club

### Pumps

- Existing pumps upgraded

### Levees

- Levees can be designed to reflect natural landscaping, where space is available
- Levees raised and extended to afford additional protection and prevent overlapping

### Overland flow path

- Convey water at ground level to creek
- Storage capacity designed into streetscape

### Pipes

- Convey stormwater to Moonee Ponds Creek

- precinct boundary
- new integrated stormwater management open space
- new open space
- existing open space
- new or upgraded levee
- investigation area for the raising of streets

- new or upgraded pipe
- overland flow path
- pump station
- urban boulevard
- green link



## Designing in flood-prone areas

In order to fully mitigate the risk of flood to life and property in Arden, ground floor levels of some buildings will need to be raised above the forecast flood level. The height to which the ground floor level needs to be raised will depend on the proposed use and flood depth, with residential uses needing to be raised higher than other uses.

It is especially important that the interfaces of raised floor buildings respond positively to the public realm. Poor design results in complicated, unattractive and inequitable combinations of stairs and ramps to overcome the height difference from the street to the ground floor and that undermine the experience at the street-level (see poor examples on this page).

For example, raising ground floor levels in activity centres where retail uses are proposed can be difficult as many businesses rely on easy, at-grade access for pedestrians from the street.

Urban design issues that result from required finished floor levels can be overcome through careful design considerations, design detail and landscaping.

The City of Melbourne will work with Melbourne Water and other Victorian Government departments and agencies to prepare further guidance on urban design in flood-prone areas, to be released in late-2020.



**Figure 44** This page: Examples of poor flood-responsive urban design that do not provide an active street frontage.

Where possible, activity centres will be located away from the most flood-prone parts of Arden. Where active interfaces are proposed in flood-prone areas, considerations may be given to the design of level changes that provide required flood protection but also ensure active, safe and attractive edges to streets.

Level management can be layered to provide a softened landscape presentation, best practice management of privacy and activation, and limit the height of any vertical barrier to the street edge.

Both land use and urban design need to be considered when delivering the required flood protection in Arden.



**Figure 45** This page: Examples of good flood-responsive urban design that provides an active street frontage.

## **OBJECTIVE 20**

**Establish an alternative water system across Arden that provides access to high-quality alternative water to be used in buildings and to irrigate open spaces.**

Securing water supply is a significant challenge for Victoria. Projected population growth and changes to climate will increase pressure on our current potable water sources and reduce the amount of water available for use.

To help meet this challenge, the Victorian Government has prepared *Water for Victoria* (2016), a strategic plan that guides the management of water to support a healthy environment, prosperous economy and thriving communities now and for the future. The plan identifies urban areas as a significant opportunity to help embed resilience in local communities, encourage better use of water and improve the environment.

The renewal of Arden is a unique opportunity to rethink the way water is managed in urban environments.

City West Water, in collaboration with the Victorian Government, and members of the Maribyrnong Integrated Water Management Forum, is investigating the opportunity to secure an alternative water supply for indoor and outdoor non-potable uses in Arden. Alternative water sources under investigation include local stormwater harvesting and sewer mining.

Any alternative water plant will be located appropriately to best integrate with the existing infrastructure in the precinct and be designed to meet anticipated water demand. Uses for alternative water in Arden could include:

- Irrigation of sports fields, open spaces and streetscape landscaping throughout Arden
- Toilet flushing, laundry and watering of private green spaces within Arden Central.

The supply of alternative water for internal uses is proposed for Arden Central as this area presents the greatest opportunity in the precinct to establish an alternative water system due to the proposed density and level of certainty of new development.

New developments in Arden will be responsible for providing on-site water retention infrastructure to ensure there is no net-increase to the impervious surface area per development and to manage the stormwater runoff from the site to meet pollution reduction requirements. This will be delivered in line with local best practice environmental management targets and could include green roofs, rain gardens and rainwater tanks.

### **STRATEGY 20.1**

Support the delivery of an alternative water treatment plant and associated third-pipe infrastructure to provide recycled water as a substitute for potable water for toilet flushing, laundry and irrigation across all public and private development in Arden Central.

### **STRATEGY 20.2**

Identify an appropriate location for an alternative water treatment plant (approximately 2,000 square metres) and storage tank (approximately 2,500 square metres) for the Arden precinct through master planning of Arden Central.

### **STRATEGY 20.3**

Design buildings to capture rainwater to minimise flooding, improve stormwater quality and create an alternative water resource.



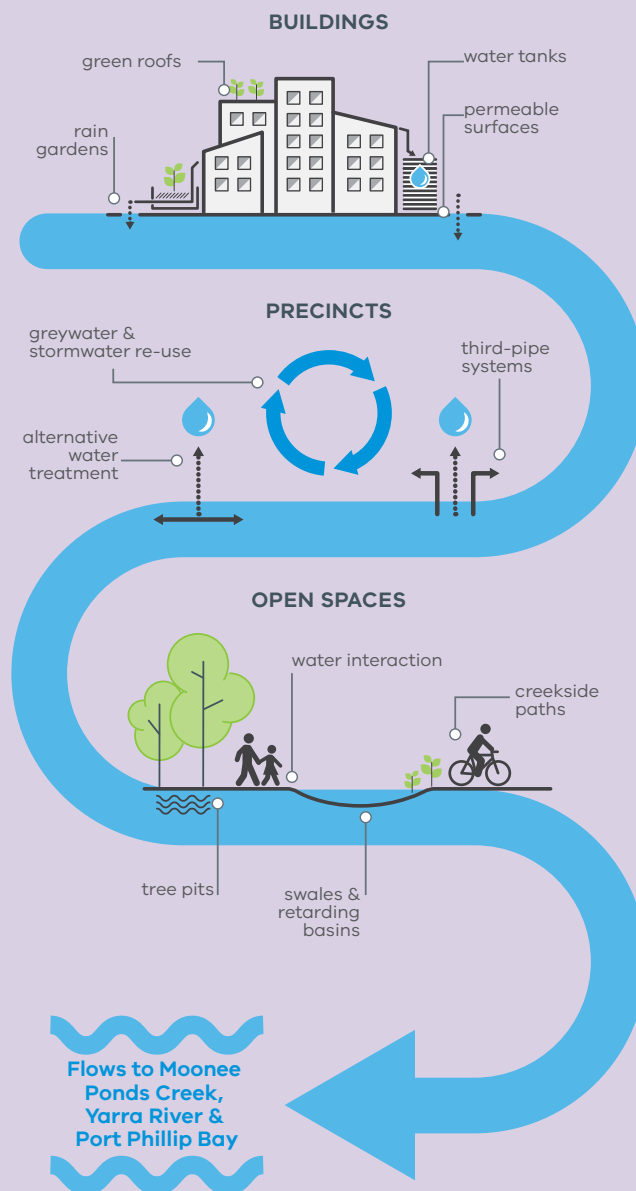
## The urban water cycle & integrated water management

The natural water cycle is impacted by urbanisation. Buildings, concrete and other sealed surfaces prevent water from soaking into the ground. As a result, natural water flows are altered, and surface stormwater is created contributing to surface pollutants, flooding and decreased soil moisture.

Stormwater is rain that has collected on roofs, roads, footpaths and other sealed surfaces. It flows directly into our waterways via the stormwater drainage network. When water meets surfaces such as roofs, roads and footpaths, it becomes contaminated with oils, metals, litter and other pollutants. Stormwater drains do not usually have any treatment systems, so pollutants are carried directly into our waterways, bays and oceans.

In Arden, impermeable surfaces and a lack of existing planting have already significantly altered the local water system, preventing stormwater from soaking into the ground and reducing evapotranspiration. As a result surface stormwater flowing into the Moonee Ponds Creek is heightened and worsens urban waterway pollution.

Although excess amounts of stormwater can cause problems in urban areas, it is also a very valuable resource for enhancing the liveability of our city. Significant local stormwater in Arden could be captured and treated to provide an alternative water source for the precinct. This will be achieved through the adoption of an integrated water management (IWM) approach described in Chapter 4 and Chapter 6. Some of the elements of an IWM are described in Figure 43.



**Figure 46** Elements of integrated water management. Source: *Arden Vision*, 2018.

# 7 Creating diverse open spaces

Open space network  
Open space design



*Arden will be a cooler and greener version of the central city, with a generous and well-connected open space network, providing multi-functional spaces for recreation, socialising, active transport and biodiversity.*

*– Arden Vision, 2018.*

Arden's open space and public realm network will be designed to support the health of the community and the environment; celebrate cultural values and heritage and create opportunities for collaboration and innovation.

A cleverly designed, generous and integrated network of open spaces will celebrate water in the landscape and be a core part of the precinct's identity. The detailed planning of open spaces will draw on the rich Aboriginal and natural history of the area and local knowledge of the community to inform the design of the public realm and restore connections with the Moonee Ponds Creek and Arden's ecology.

Much loved parks such as the Clayton Reserve dog park, the North Melbourne Recreation Reserve and the green streets that connect them will be retained and enhanced.

The network of existing green streets will be transformed through extensive tree planting and sustainable transport goals will be reinforced through connected, cool and safe streets.



**Figure 47** Pancras Square in Kings Cross Central, London is an example of the type and function of the future open space in Arden Central.

## **OBJECTIVE 21**

**Provide generous, well-designed and accessible open spaces that are diverse and flexible to meet the needs of Arden’s evolving community and visitors to the precinct.**

Arden will have a network of high quality and connected open spaces including parks, civic plazas and active and passive recreation spaces. These spaces will be robust and capable of adapting to changing conditions and community demographics to ensure they can serve the needs of the many different groups and individuals of Arden’s community over a long period of time.

Planning for Arden has looked to international best practice, such as Battery Park in New York City and Kings Cross Central in London, to provide direction on carrying forward the industrial heritage and character into the public realm and integrating water into the spaces of everyday life.

The defining feature of Arden’s open space network will be a new 1.6 hectare space adjacent to Arden Station that will be delivered early in the project. This space will provide a range of functions from managing the activity and vibrancy of a major metro train station to hosting festivals and events. Directly to the south, a neighbourhood open space will serve a range of passive recreation, play and informal activities.

In Arden North an integrated water management open space will connect the existing North Melbourne Recreation Reserve to the Moonee Ponds Creek corridor. In significant rainfall events this park will temporarily collect and manage stormwater. Clever design will ensure the space safely and effectively serves its flooding function, be a great asset to the community and improve local biodiversity.

## **STRATEGY 21.1**

Deliver a new 1.6 hectare open space in Arden Central comprising a Capital City open space and a neighbourhood open space to align with the City of Melbourne’s *Open Space Strategy*. This will be delivered early to complement the opening of Arden Station.

## **STRATEGY 21.2**

Deliver 5.9 hectares of new integrated stormwater management open space for informal recreation in Arden North that is able to safely serve a stormwater function in extreme rainfall events.

## **STRATEGY 21.3**

Deliver a linear park along Munster Terrace and a shared path along the western edge to create green links and walking tracks.

## **STRATEGY 21.4**

Preserve opportunities for connecting spaces with the Moonee Ponds Creek by providing additional integrated stormwater management open space along the precinct western edge.

## **STRATEGY 21.5**

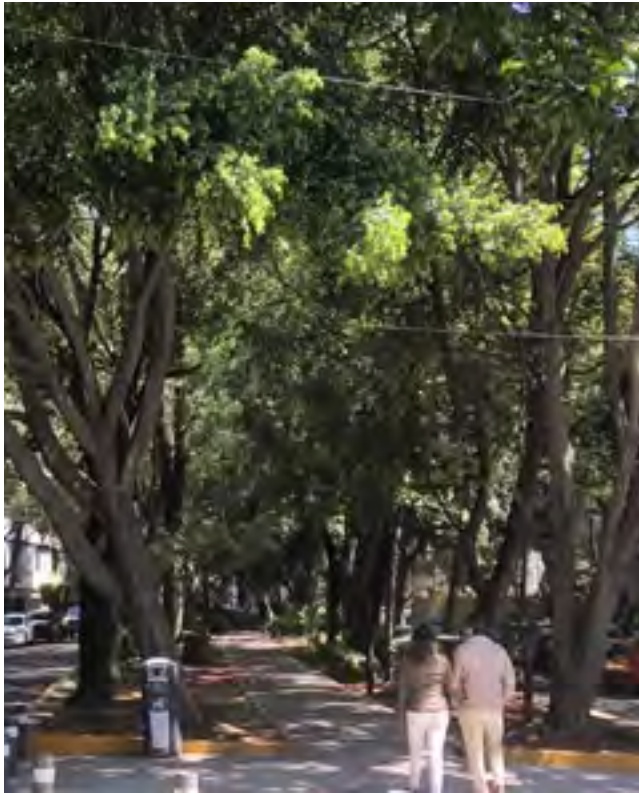
Coordinate open space contributions to deliver open spaces throughout the precinct to ensure residents, workers and visitors have access to these spaces within an easy 300m walk.

## **STRATEGY 21.6**

Explore opportunities to enhance existing open space assets.

## **STRATEGY 21.7**

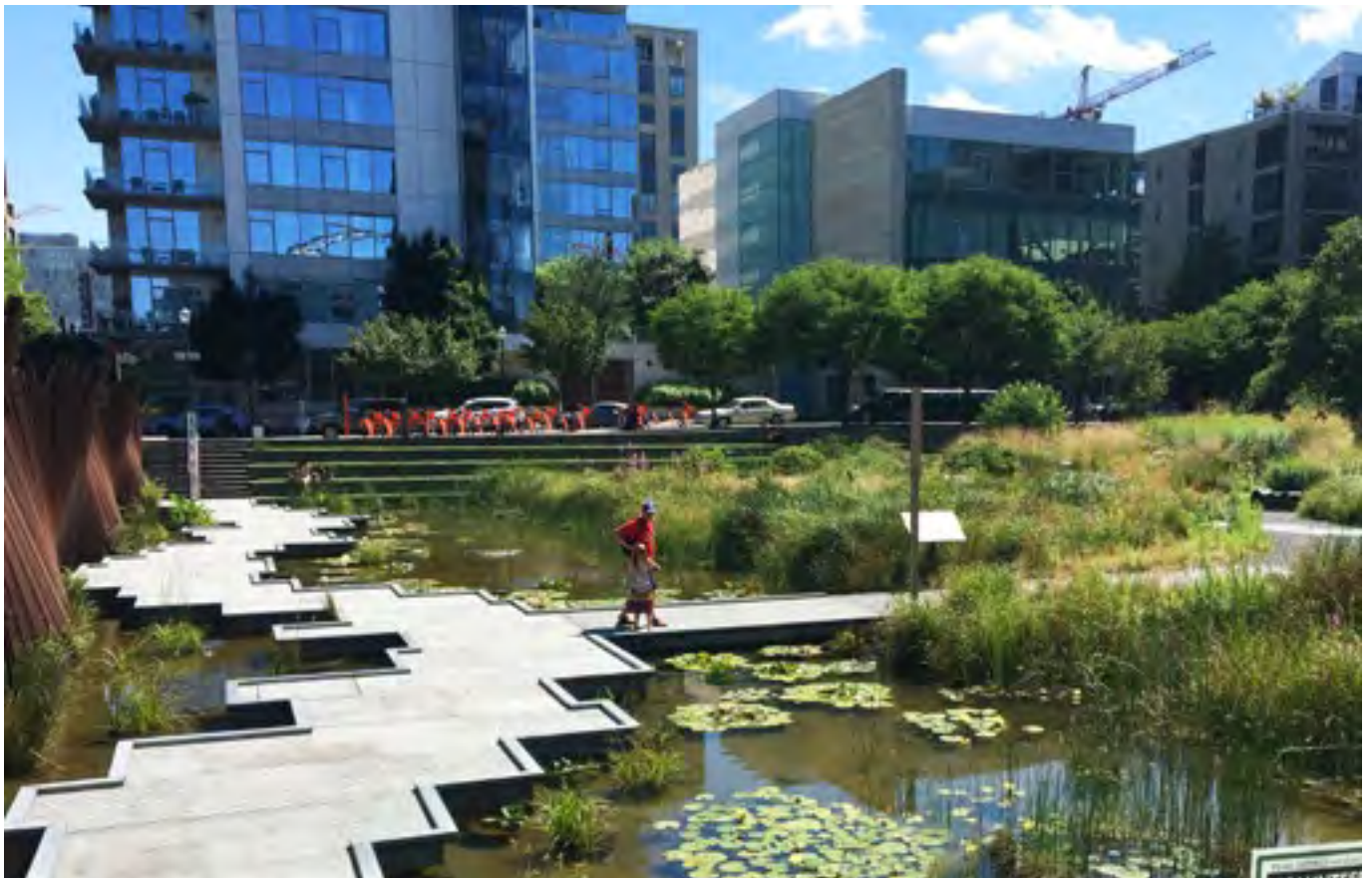
Collaborate across Victorian Government, local government and water authorities to realise the open space and recreational aspirations of the *Moonee Ponds Creek Strategic Opportunities Plan* for Arden.



**Figure 48** Increased tree canopy cover will improve urban cooling and greening in Arden.



**Figure 49** Opportunities to enhance existing open space assets such as Clayton Reserve.



**Figure 50** Example of an open space in Portland, Oregon which also manages stormwater during flood events

## Arden's proposed open space and public realm network

Type	Catchment	Size	Character
<b>Existing</b>			
North Melbourne Recreation Reserve	Municipal 2km	4.5 hectares	<ul style="list-style-type: none"> <li>• Restricted sporting</li> <li>• Recreation</li> </ul>
Clayton Reserve	Local 300m	0.7 hectare	<ul style="list-style-type: none"> <li>• Informal use</li> <li>• Seating/viewing</li> </ul>
Macaulay Road & Canning Street Reserve	Small local 300m	0.2 hectare	<ul style="list-style-type: none"> <li>• Informal use</li> <li>• Seating/viewing</li> </ul>
Railway Place & Miller Street Park	Small local 300m	0.1 hectare	<ul style="list-style-type: none"> <li>• Informal use</li> <li>• Seating/viewing</li> </ul>
<b>Total existing unencumbered, unrestricted open space</b>		<b>1.0 hectares</b>	
<b>Total existing open space</b>		<b>5.5 hectares</b>	
<b>Proposed new space</b>			
Arden Central Capital City open space	Capital city N/A, regional function	0.6 hectare	<ul style="list-style-type: none"> <li>• Civic</li> <li>• Events</li> <li>• Square or urban plaza</li> <li>• Water feature</li> </ul>
Arden Central neighbourhood open space	Neighbourhood 500m	1.0 hectare	<ul style="list-style-type: none"> <li>• Recreation</li> <li>• Informal use</li> <li>• Play</li> </ul>
Arden North and Arden Central integrated stormwater management open space	Municipal 2km	6.0 hectares	<ul style="list-style-type: none"> <li>• Informal use</li> <li>• Heritage</li> <li>• Nature conservation</li> <li>• Water feature</li> </ul>
Munster Terrace linear park	Small local 300m	TBC	<ul style="list-style-type: none"> <li>• Linear</li> <li>• Informal use</li> <li>• Seating/viewing</li> </ul>
Western edge green link	Small local link N/A	N/A	<ul style="list-style-type: none"> <li>• Linear</li> <li>• Seating/viewing</li> </ul>
<b>Total proposed unencumbered, unrestricted open space</b>		<b>1.0 hectare</b>	
<b>Total proposed open space</b>		<b>7.6 hectares</b>	

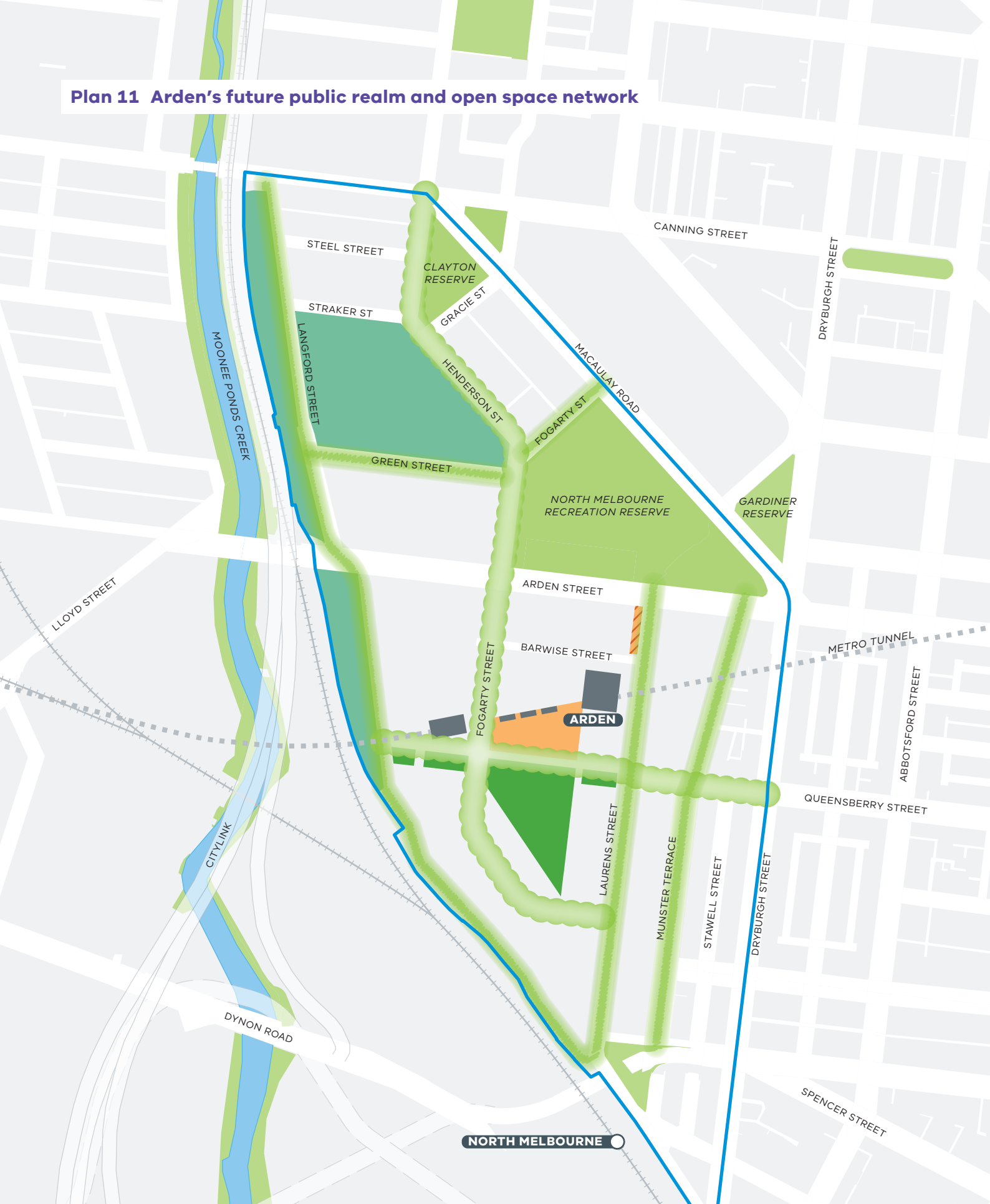
### What is open space?

**Open space** is the public land set aside primarily for recreation, nature conservation, passive outdoor enjoyment and public gatherings.

**Encumbered open space** is open space that is constrained in function to an extent, such as due to service use requirements or below-standard access to sunlight.

**Restricted open space** refers to space that is only available on a fee-paying or club membership basis some or all of the time, such as space used by professional sporting clubs.

# Plan 11 Arden's future public realm and open space network



- precinct boundary
- existing open space
- new open space
- new Capital City open space
- new urban plaza
- new integrated stormwater management open space
- urban boulevard
- green link



## OBJECTIVE 22

**Establish design excellence and design objectives for streets, open spaces and development interfaces to ensure the public realm works as a seamless, integrated and continuous space for people.**

Arden's public realm and open space network will be designed to meet economic, social and environmental outcomes. Adopting a generic approach to open space would not produce the outcome and the place aspired to in the *Arden Vision*. Beyond simply looking at the amount of space provided, the structure plan aims to build on the existing features and characteristics of Arden, integrate principles from the surrounding area and look to international best practice to deliver a public realm and open space network that exemplifies a world leading urban renewal precinct.

Pedestrian-friendly streets and privately owned public spaces have an opportunity to extend and connect open spaces. The design of these spaces, such as forecourts, roof gardens and other in-between spaces, is key to ensuring they genuinely contribute to the public realm and open space network.

A design charter will be established to inform the overall design of the network, it will lead the co-design and programming of key spaces with the community and Traditional Custodians, and will guide developers in delivering projects that contribute to and enhance the public realm and open space network. Design excellence will ensure that spaces and places can serve multiple different roles and functions for different people, be flexible across the day, week and year, and evolve over time as people's needs change.

## STRATEGY 22.1

Develop a design charter to guide the detailed design of public spaces and development interfaces.

## STRATEGY 22.2

Encourage new spaces to build Arden's identity by integrating and enhancing existing assets of Arden's character and public realm including industrial character and existing mature planting.

## STRATEGY 22.3

Limit carriageways and on-street car parking next to open spaces in order to increase their usability, connectivity and safety.

## STRATEGY 22.4

Expand the urban forest through streetscape designs that provide ample space for street trees and people movement. A target of 40 per cent canopy coverage should be achieved in the public realm over time.

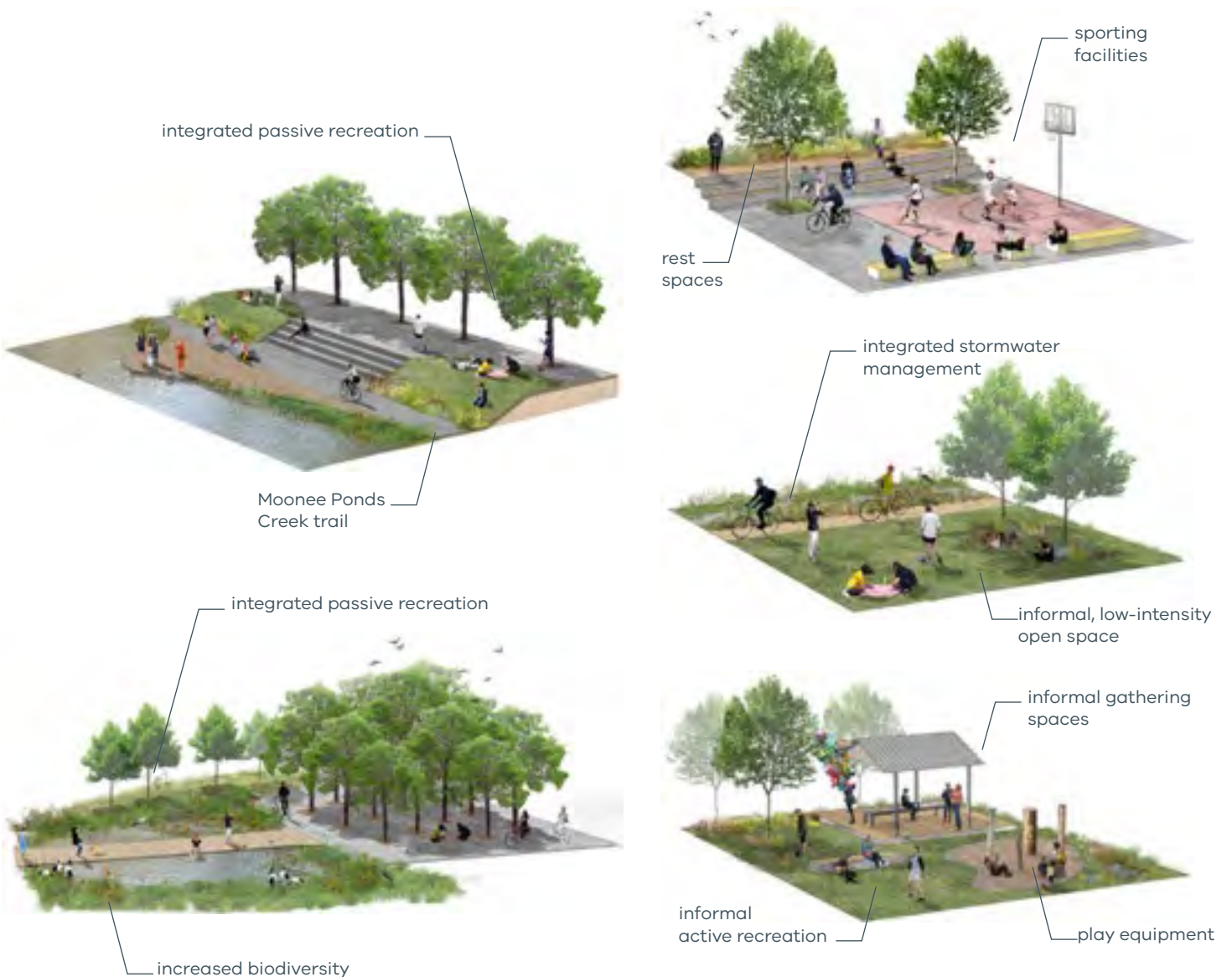


**Figure 51** Increased tree canopy cover will improve urban cooling and greening in Arden.





**Figure 52** Examples of the diversity of activities within a Capital City open space. Source: *Arden Public Realm and Open Space Strategy*, AECOM 2020.



**Figure 53** Examples of open spaces that also manage flooding. Source: *Arden Public Realm and Open Space Strategy*, AECOM 2020.

**Figure 54** Examples of diverse activities within a neighbourhood open space. Source: *Arden Public Realm and Open Space Strategy*, AECOM 2020.

## Planning for the Moonee Ponds Creek

The Moonee Ponds Creek has a significant role as a major natural connector between several communities located along the creek. By providing better connectivity to Arden and the surrounding communities, the creek can become a recreational asset integral to the precinct's identity.

Planning for Arden will seek to align with the *Moonee Pond Creek Strategic Opportunities Plan* (City of Melbourne, 2019), the *Moonee Ponds Creek Implementation Plan* (Victorian Planning Authority), as well as the Victorian Government's *Waterways of the West* project which provides for a community-led approach to protecting waterways for generations to come.

The plan identifies future upgrades to pedestrian and cycle connections across the creek at Arden Street and Macaulay Road, as well as two new pedestrian connections from Arden North to the western bank. This structure plan will allow for potential future connections to the Moonee Ponds Creek corridor in the design of the open space network in Arden North, including the design of integrated stormwater management open spaces near Langford Street.





Figure 55 Top & above: Artist's impression of a re-imagined Moonee Ponds Creek from the *Moonee Ponds Creek Strategic Opportunities Plan*, 2019. Indicative only.

# 8 Accommodating diverse communities

Affordable housing



***Arden will cater to a diversity of households across a range of ages and incomes, and address different needs with affordable housing. New homes will be well-designed, accessible and sustainable.***

***– Arden Vision, 2018.***

Within the City of Melbourne there is a shortfall of 5,500 affordable rental dwellings. With no change this is expected to increase to over 23,200 dwellings by 2036.

Without appropriate provision of affordable housing, households experiencing housing stress face increased risk of homelessness and people experiencing homelessness have greater difficulty finding safe and appropriate accommodation.

Housing also plays a critical role in unlocking Arden's potential as an innovation precinct. Affordable housing will ensure Arden is an inclusive and affordable neighbourhood, providing housing for people like health workers, teachers, creatives and entrepreneurs.

In order to meet the future housing needs of the municipality, approximately one in four new dwellings will need to be affordable rental housing as defined by the *Planning and Environment Act 1987* and industry standards.

The Victorian Government and the City of Melbourne recognise the importance of the Arden Precinct as setting the standard for urban renewal in Melbourne.

An Affordable Housing Strategy is being prepared for the final Arden Structure Plan to guide the development of planning controls that will ensure affordable housing is delivered. The strategy will identify the most appropriate types of affordable housing that should be delivered through the development of Arden. This should enable flexibility to respond to changing needs over time.

## **OBJECTIVE 23**

**Facilitate inclusive, well-designed, sustainable and accessible housing, with at least six per cent of all new housing in the precinct being affordable for very low to moderate income households and delivered as social and affordable housing or shared equity.**

Arden's renewal is an invaluable opportunity to achieve global best practice in affordable housing to respond to the significant and growing shortfall in affordable housing across Melbourne. Affordable housing, as defined by the *Planning and Environment Act 1987*, is "housing, including social housing, that is appropriate for the housing needs of very low-income households, low income households and/or moderate income households." Industry standard defines housing as being 'affordable' where housing costs represent less than 30 per cent of household income for these household types.

Access to diverse, high quality and affordable housing is a priority for the ongoing productivity, liveability and social equality of Melbourne and Victoria. The households requiring this housing could work in the hospitals, cafés, schools and other services that underpin Melbourne's global reputation for liveability and prosperity. To retain these qualities, we must invest in affordable housing that is located close to jobs, amenity and services.

Across a range of policies and ministerial actions, both the City of Melbourne and the Victorian Government have recognised the importance of providing a greater supply of appropriate social and affordable housing in well located areas that have access to transport, employment and services.

### **STRATEGY 23.1**

Establish affordable housing guidelines for Arden that provide clarity and certainty regarding the amount of housing required and the means of calculating it, the type and design quality of housing to be provided, and the process for how it will be provided.

### **STRATEGY 23.2**

Require at least six per cent of new residential development be delivered through mechanisms such as community housing or shared equity.

### **STRATEGY 23.3**

Require that up to 25 per cent of new housing be made available as affordable housing where City of Melbourne-owned land is redeveloped.

### **STRATEGY 23.4**

Incentivise additional affordable and social housing provision on all types of land to achieve goals.

### **STRATEGY 23.5**

Require that at least 10 per cent of all properties in government-led developments be prioritised for first home buyers through the Victorian Government's *Homes for Victorians* (2017) initiative.

### **STRATEGY 23.6**

Require that at least five per cent of all private housing be universally accessible, to encourage assisted living and help residents age in place.

### **STRATEGY 23.7**

Ensure that planning controls deliver a diversity of sizes of residential accommodation for all types of households.



**Figure 56** Lampton Road is a new neighbourhood in London that will create over 900 new homes with 50 per cent being affordable housing. Source: Notting Hill Genesis.



**Figure 57** Boyd Village is being delivered as part of the sale of City of Melbourne land and includes new community facilities and just under 15 per cent affordable housing. Source: PDG.

# 9 Investing in community infrastructure

Community hubs  
Schools





***Arden will support the existing and new community by providing infrastructure that is integrated with the existing area. The design of community facilities such as schools, will reflect best practice and community input.***

***– Arden Vision, 2018.***

To support the health and wellbeing of residents, workers and students in Arden, new facilities such as the proposed government schools, recreation facilities, youth centres, libraries, arts facilities and community centres will be required. The provision of high-quality community infrastructure, delivered by both public and private providers, is integral to cultivating a culturally and socially cohesive community. Community spaces will bring the new and existing communities together and can become civic landmarks.

Community infrastructure will be integrated with Arden's innovation story by designing and delivering facilities and services, creating a lifestyle and community that attracts talented individuals and involving the community in the innovation occurring in the precinct.

Beyond serving the immediate community, Arden's central location in the north-west region of inner-Melbourne and high level of transport access means there are opportunities for some facilities to serve the region more broadly. Similarly, this high level of connectivity enables Arden to tap into and grow existing nearby communities, such as in the North Melbourne Arts Precinct.

## **OBJECTIVE 24**

**Ensure timely delivery of high-quality, accessible and integrated community infrastructure to meet the needs of existing and future residents, workers and visitors.**

Providing equal and fair access to education, arts and cultural activities is key to ensuring that the growing community feels a sense of belonging and to promote social cohesion. Spaces that support the development, production and presentation of creative work will contribute to the new identity of the precinct as a thriving innovation precinct.

Innovation-focussed infrastructure in the heart of Arden Central will provide a variety of robust studios and workspaces that can support local enterprise and encourage multi-disciplinary collaboration between creative and innovation industries. Additional facilities integrated into mixed-use developments throughout the precinct will also support this collaborative practice.

Community hubs create the opportunity to blend spaces and facilities together, enabling partnerships between local government, state government and the private and not-for-profit sector. This will allow for the co-location of services such as maternal and child health services with a proposed government primary school and privately owned/operated child-care, and provide opportunities for workers, residents and students to share spaces like conference centres and libraries. The Dock library in Docklands was successfully delivered using the hub model. Community hubs in Arden North and Arden Central will be located to maximise access to open space, complementary services and facilities, and new and existing neighbourhoods.

### **STRATEGY 24.1**

Deliver an innovation hub in Arden Central to serve the needs of the Arden innovation and creative community and surrounding areas.

### **STRATEGY 24.2**

Deliver a family and community hub in Arden Central to serve the needs of the Arden community.

### **STRATEGY 24.3**

Deliver an arts, cultural and community hub in Arden North to serve the needs of the Arden community.

### **STRATEGY 24.4**

Explore opportunities to upgrade and expand the North Melbourne Recreation Reserve to serve the needs of the Arden community and surrounding areas.

### **STRATEGY 24.5**

Co-locate proposed community facilities, proposed government schools and sports facilities described in Plan 12 to maximise access and deliver opportunities through sharing complementary infrastructure.

### **STRATEGY 24.6**

Provide community facilities that are diverse and adaptable to serve the changing needs of people over time, and beneficial, supportive and appropriate for people with special needs, including families, the ageing and elderly population, people with disabilities and those with different cultural and social needs.

### **STRATEGY 24.7**

Support and facilitate the delivery of creative space by private providers including live/work artist studios, gallery spaces, rehearsal and performance spaces, and creative workshops, in addition to services provided within public community hubs.

### **STRATEGY 24.8**

Support and facilitate the delivery of aged care and long day childcare facilities by private providers, in addition to the aged and childcare services provided within public community hubs.

## Plan 12 Arden's proposed community facilities

### Arden North arts, cultural & community hub

- Library services and creative technologies
- Multi-purpose bookable rooms
- Aboriginal cultural interpretation space
- Ancillary lettable space for health services and Aboriginal businesses

### Innovation hub

- Innovation and technology labs
- Artists and makers spaces
- Co-working spaces
- Presentation spaces

### Proposed government primary school

- Primary school
- Kindergarten
- Maternal and child health services
- Playgroup space

### Arden Central family & community hub

- Older persons and disability services
- Multi-purpose bookable meeting space

- precinct boundary
- Arden Central community hub
- arts, cultural & community hub
- innovation hub
- proposed government primary school
- proposed government secondary school investigation site
- potential institutional use
- existing community facilities
- active recreation opportunity
- new open space
- existing open space
- new integrated stormwater management open space

**Note:** The location of proposed government schools is subject to further investigation and agreement.

## Case study: Community hubs



### Cultural Centre Rozet Arnhem, Netherlands

The Cultural Centre Rozet is a mixed arts and culture facility located in a dense and developing neighbourhood. Incorporating two libraries, a heritage centre, art centre and community college, the 12,000 square metre project is close to a train station and was a catalyst for further urban development in the area. The project boasts exemplary and interactive sustainability credentials, complete with a public green roof that showcases water management, biodiversity and renewable energy.



Figure 58 Above & right: External and internal views of Cultural Centre Rozet.

### Artscape Daniels Launchpad Toronto, Canada

Artscape Daniels Launchpad is a first-of-its-kind creative entrepreneurship hub designed to help emerging and established artists, designers and creators succeed like never before.

Launchpad offers members access to co-working spaces, state-of-the-art and multidisciplinary creative and technical studios, meeting and event facilities, and specialised creative entrepreneurship programs to support and inspire creative experimentation, learning and collaboration across many disciplines.



Figure 59 Collaborative spaces at work in Artscape Daniels Launchpad.

## OBJECTIVE 25

### Deliver educational facilities to meet the anticipated demographic demand.

Arden is expected to generate approximately 450 government primary school enrolments and 380 government secondary school enrolments, as well as approximately 200 non-government primary school and 300 non-government secondary school enrolments. There are no primary or secondary schools currently located within Arden, however several government and Catholic schools are within walking distance of the precinct. A proposed government primary school, North Melbourne Hill (interim name) is located nearby in Abbotsford Street, North Melbourne.

Based on the expected student demand, it is anticipated that there will be one additional government primary and one additional government secondary school required to meet the needs of the new community in Arden and the surrounding community. Providing flexibility to accommodate private education providers is also considered in the planning for Arden. There are opportunities to co-locate educational facilities with community facilities including multi-purpose rooms, kindergartens, early learning centres and indoor/outdoor sports courts to support a healthy and engaged community.

## STRATEGY 25.1

Support the development of the proposed government primary school within Arden Central to serve the needs of the current and future Arden community and surrounding areas.

## STRATEGY 25.2

Support development of the proposed government secondary school in the North Melbourne/Macaulay area to serve the needs of the current and future Arden community and surrounding areas.

## STRATEGY 25.3

Ensure schools in Arden are innovatively planned and delivered to be located in proximity to or co-located with complementary services and spaces, including recreational spaces, activity centres, public transport services, kindergartens and early learning centres.



Figure 60 The façade and a playspace of South Melbourne Primary School.

## Case study: Schools in urban renewal areas

### South Melbourne Primary School

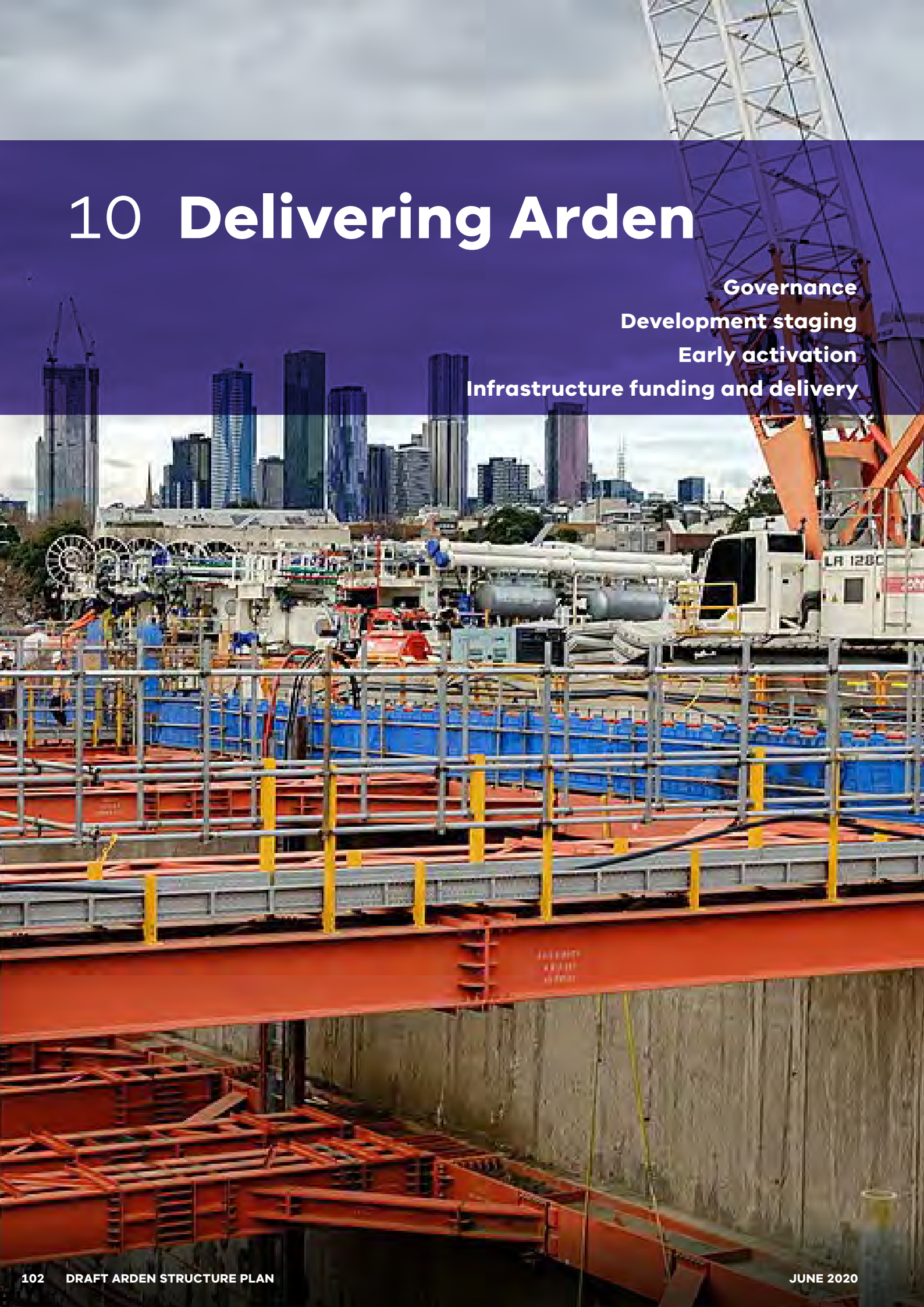
South Melbourne Primary School delivered in Fishermans Bend urban renewal area opened in 2018 and is Victoria's first vertical school. The internationally-awarded project joined the growing number of school designs responding to the challenge of providing educational facilities in dense environments.

The six-storey school maximises space by providing community facilities on the lower floors including an early learning centre, maternal and child health centre, multi-purpose community rooms and indoors and outdoors sports courts. It is an integrated and multi-functional part of the community available to be used when the school is out of session.

The safe integration of the school with the surrounding neighbourhood is supported by public realm and streetscape upgrades to maximise the school's ability to use nearby open space.

# 10 Delivering Arden

**Governance**  
**Development staging**  
**Early activation**  
**Infrastructure funding and delivery**



The delivery of Arden as an innovation precinct that aspires to accommodate approximately 34,000 jobs and around 15,000 residents will be achieved over a period of more than 25 years. The complexity of delivering the strategies outlined within this structure plan and realising a world-class urban renewal site requires a whole of government approach and integrated and innovative approaches to governance, finance, delivery, ownership and management of infrastructure and development. This includes putting in place the servicing and utilities infrastructure required to meet future needs while responding to updates in technology, coordinating funding between all levels of government, private developers and other stakeholders to deliver a high-quality public realm, and applying the right planning controls to facilitate delivery.

Developing an agreed governance model amongst stakeholders will be an important early activity in Arden; to ensure clarity around ongoing decision-making and accountability amongst delivery partners. With a robust governance structure in place, Arden will be well placed to provide a sound precinct management and stewardship strategy, and to meet the ongoing and evolving needs of the precinct.

The overall delivery model for Arden is subject to ongoing and detailed testing to inform a delivery strategy that is effective in delivering infrastructure and development outcomes when they are needed and are equitable in sharing costs. As such the delivery model is subject to change.

## OBJECTIVE 26

**Ensure coordinated and collaborative staging of development on government owned land around the new Arden Station to effectively respond to existing conditions and ongoing business requirements and create a safe and vibrant place upon opening of the station.**

A coordinated and collaborative development strategy will be required to ensure the success of the project. Consideration needs to be given to current and future landholders, residents and employers, the delivery of major infrastructure projects – in particular the Arden station due to open in 2025 – the curation of government landholdings and attracting tenants that will set the precinct’s economic direction. The development strategy will also consider works required to make Arden ‘development-ready’, including flood management, contamination remediation, and noise and air pollution attenuation. The coordination of these elements is critical to place creation, investment attraction and community development.

The Victorian Government is committed to the development and curation of Arden to ensure that the objectives of a high quality place to live, and innovative place to work, are achieved. Early place shaping activities are essential to building identity and community connectedness and support Arden’s innovation aspirations.

In addition to this, more detailed master-planning and delivery strategy process will follow this structure plan that will provide detail on how the precinct will be delivered and begin to work with key stakeholders, including the community and traditional custodians, to develop concept and detailed designs of key sites, places and streets in Arden.

## STRATEGY 26.1

Develop an agreed precinct governance model with stakeholders to provide a sound framework for ongoing decision-making.

## STRATEGY 26.2

Establish a delivery strategy that outlines precinct development coordination, staging and timing. This will include a strategy for government landholdings, an approach to working with the private development sector, and set out a coordinated approach to the delivery of key infrastructure items.

## STRATEGY 26.3

Establish an application referrals and assessment process to ensure development outcomes are consistent with the objectives of the *Arden Vision* and Structure Plan.

## STRATEGY 26.4

Collaborate with the Metro Tunnel Project and project partners to deliver construction phase and legacy phase projects as outlined in the Metro Tunnel Creative Strategy.

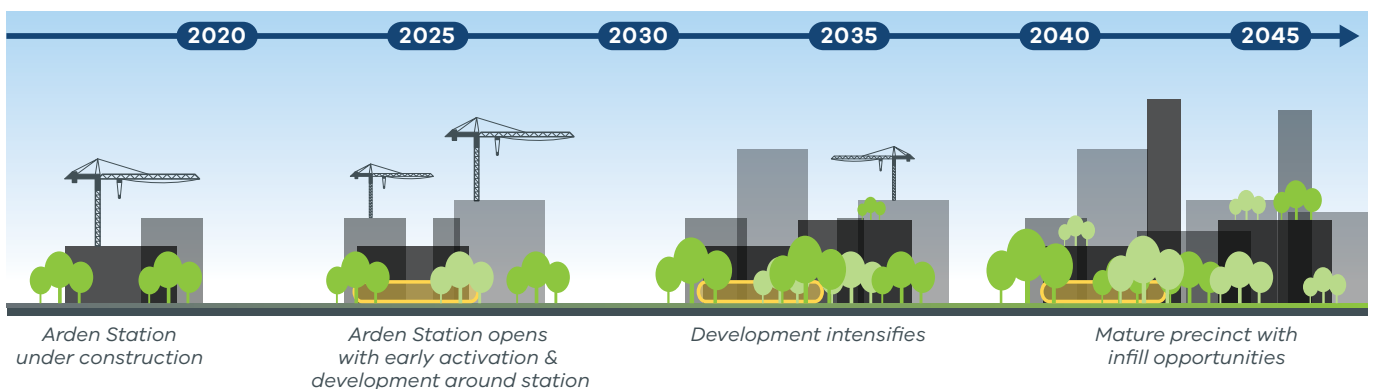


Figure 61 Timeline of Arden’s anticipated transition to a mature precinct by 2050.



## **OBJECTIVE 27**

**Ensure that early activation and place shaping activities are delivered alongside early precinct development and in readiness for the Arden station opening, to create a distinct sense of place and a vibrant and interesting early precinct experience and ensure the long term success of the precinct.**

Successful neighbourhoods have a strong quality of place; they offer quality urban amenity and quality experiences that attract strong visitation, accelerate outcomes, and increase interactions. Ensuring a focus on place shaping activities and early activation in the precinct will ensure positive early experiences and create a place identity for Arden, setting the precinct up for success in the longer term and supporting critical early investment in the precinct. This should include identifying key community groups to work with in developing and implementing the plan.

### **STRATEGY 27.1**

Develop an Arden Place Plan that identifies, coordinates and communicates opportunities for early place creation and place-making activities that foster a strong sense of place and community identity.

## **OBJECTIVE 28**

**Ensure that new development responds to surrounding conditions including the transmission pressure gas pipelines and is not unduly impacted by noise, vibration and electromagnetic interference from the adjacent railway corridor, elevated roadway and Metro Tunnel Project.**

While the adverse effects of the existing industrial land uses will transition over time, noise and vibration generated from the adjacent rail corridor, elevated roadway and Metro Tunnel Project will likely prevail into the future. For Arden to be a truly desirable place to live and work, new development must ensure that the place is protected from undesirable levels of noise.

The design of the Metro Tunnel includes mitigation measures which seek to achieve guideline targets for noise, vibration and electromagnetic interference (EMI) during operation. There is an onus on future developments to ensure that they are not unduly impacted by noise, vibration and electromagnetic interference from the Metro Tunnel infrastructure.

### **STRATEGY 28.1**

Require noise-sensitive uses (such as apartments) to include noise and vibration attenuation measures when in proximity to the railway corridor and elevated freeway and address EMI in the case of the Metro Tunnel Project.

### **STRATEGY 28.2**

Design buildings to ensure that new sensitive land uses located near noise, vibration and, in the case of the Metro Tunnel Project, EMI-emitting uses demonstrate that development is designed and constructed to achieve recommended amenity targets.

### **STRATEGY 28.3**

Protect key public spaces in the precinct by shielding them from significant noise, vibration and, in the case of the Metro Tunnel Project, EMI sources through planned placement of vegetation, buildings and other mitigation strategies.

### **STRATEGY 28.4**

Ensure permit applications within the measurement length of transmission pressure gas pipelines appropriately respond to manage the potential risk.

### **STRATEGY 28.5**

Establish a referral process with relevant gas authorities to assess the permit applications.

## **OBJECTIVE 29**

**Make Arden adaptable to change while managing the impacts of existing uses that need to transition from the precinct.**

Arden's long and rich industrial history dating back to the early 19th century will form an important part of the future character and identity of the precinct. However, land reclamation and filling in the late 19th century has led to widespread contamination across the precinct. The precinct's renewal to a mixed-use precinct will pose challenges including the remediation of potentially contaminated land and staging of adverse land uses and new development.

Several industrial activities in the area have been identified as incompatible with the planned mixed-use renewal of the precinct. As some industries will gradually transition from the area, the City of Melbourne and the Victorian Government will actively assist key landowners to facilitate positive outcomes. Existing industrial operations need to meet air quality control and noise standards, however the onus is on new sensitive land uses to ensure that they are not unduly impacted by emissions from existing industries. Collaboration with key landholders and businesses will be essential to ensuring new development is staged and located appropriately as the adverse land uses within the precinct transition out.

### **STRATEGY 29.1**

Plan for the transition of incompatible existing industries by working with business owners to understand the potential impacts to business and to future use and development in Arden.

### **STRATEGY 29.2**

Facilitate, where practical, a staged environmental assessment process to evaluate the suitability of sites for proposed development.

### **STRATEGY 29.3**

Require that the Environmental Audit Overlay be applied as part of the Planning Scheme Amendment over sites that are potentially contaminated to ensure that appropriate site remediation occurs prior to development.

### **STRATEGY 29.4**

Require new development in areas identified as being potentially contaminated to undertake further environmental assessment to determine whether potential sources of contamination are present and site remediation is required.

### **STRATEGY 29.5**

Require new development of sensitive land uses to demonstrate building design and construction practices that manage the potential adverse amenity impacts from industrial uses.

## **OBJECTIVE 30**

### **Provide critical infrastructure and utility services in a coordinated manner to support the planned development.**

Critical to supporting the intensification of Arden will be the timely delivery of key enabling infrastructure, utilities and community services.

Projects will be identified for transport, integrated water management, social infrastructure, open space and public realm projects. Effective staging and coordination across infrastructure types will be required to enable delivery efficiencies.

Development around the new station will focus on ensuring a vibrant precinct heart; central open spaces, major tenants and industry-focussed facilities will be delivered to activate Arden Central and establish a foundation for Arden's economic productivity and innovation. As the precinct grows, community services, proposed government schools and additional open spaces will also be delivered to foster a sense of place and support the growing community and workers in the precinct.

Key streets and shared paths will be delivered to encourage walking and cycling throughout the precinct and create a connected network with the surrounding neighbourhoods. Public realm and street upgrades will be delivered accordingly to connect residents, workers and the surrounding community to new spaces and facilities as they are delivered. As Arden grows, residents, workers and visitors will have access to a multitude of active and public transport options.

A precinct infrastructure plan will be included in the *Arden Structure Plan* amendment package, providing a complete list of infrastructure items, including:

- new station at Arden
- new streets
- public realm upgrades to streets for cycling, public transport, pedestrian crossings
- alterations to North Melbourne Station (to be investigated)
- centralised car parking
- open space comprising a mix of green links, small local spaces, local parks, neighbourhood parks and the Capital City Open Space
- drainage and integrated water management comprising a mix of levees, pipes, pumps, public realm water sensitive urban design features, and flood storage measures
- utilities and sustainability including centralised waste management, water supply, sewer and telecommunications
- community infrastructure including libraries, business and innovation facilities, community hubs, arts and culture facilities, sport and recreation upgrades, and provision of education facilities.

### **STRATEGY 30.1**

Prepare a precinct infrastructure plan to support public and private investment decision making and to achieve the development outcomes sought by this structure plan.

### **STRATEGY 30.2**

Collaborate across government agencies to maximise delivery efficiencies and community benefit and enable timely urban renewal by pursuing the coordinated programming, funding and delivery of infrastructure identified in the precinct infrastructure plan.

## **OBJECTIVE 31**

**Provide for the timely and coordinated funding and delivery of public open space, transport upgrades and community and social infrastructure to meet the needs of the new community.**

A range of funding and delivery mechanisms will be required to enable the delivery of the infrastructure required to support precinct development. These include:

- works funded and delivered by state government departments and agencies;
- capital works projects delivered by or on behalf of the City of Melbourne;
- utility service provider requirements (for example, Melbourne Water’s Drainage Services Scheme);
- development contributions;
- open space contributions; and
- developer works – infrastructure and works which have a direct nexus to development and required to be fully funded by the developer as part of development of the land.

In addition to investment by the Victorian Government and the City of Melbourne, developers will be required to make contributions. These may be in the form of direct delivery for works directly supporting their site, or cash or works-in-kind for infrastructure identified under a contributions scheme.

To support the funding and delivery of key infrastructure items, a development contributions plan will be prepared. The development contributions plan will ensure that the cost of providing new infrastructure to meet the demands of the new population, is shared equitably between developers and the wider community.

## **STRATEGY 31.1**

Prepare a state infrastructure investment plan outlining the role of government in investing in and facilitating the delivery of key infrastructure and the infrastructure that will be delivered through this plan.

## **STRATEGY 31.2**

Prepare a development contributions plan (or equivalent) to contribute funds towards the costs of new infrastructure required as a result of new development in Arden.

## **STRATEGY 31.3**

Prepare a Development Services Scheme with Melbourne Water for the Arden and Macaulay urban renewal areas and consult with affected landowners and development industry alongside consultation on the Final Arden Structure Plan and associated planning scheme amendment.

## Planning scheme amendment

Following review of the feedback received on this draft structure plan, the VPA and City of Melbourne will prepare the final structure plan. A final *Arden Structure Plan* will be made available to the community and stakeholders in late 2020.

A planning scheme amendment is the process undertaken to make changes to the planning scheme. Following the finalisation of structure plan, the VPA and the City of Melbourne will commence preparation of planning controls to implement the proposed land use and built form outcomes outlined in the structure plan. Since the existing controls in the planning scheme will not be suitable for the anticipated growth and development, an amendment is required to update these controls. The final structure plan will be exhibited alongside a planning scheme amendment to implement the proposed planning controls.

To provide certainty for the community, the correct planning zones and overlays must be applied to set the preferred direction of growth in Arden. Together with the structure plan, the planning scheme controls will guide the major changes to land use, built form and public spaces that together can achieve economic, social and environmental objectives for Arden.

The planning scheme amendment process will run from late-2020 to mid-2021 and will include an opportunity for the public to provide formal submissions to the planning scheme amendment and associated proposed zoning controls and development contributions plan.

# 11 Appendices

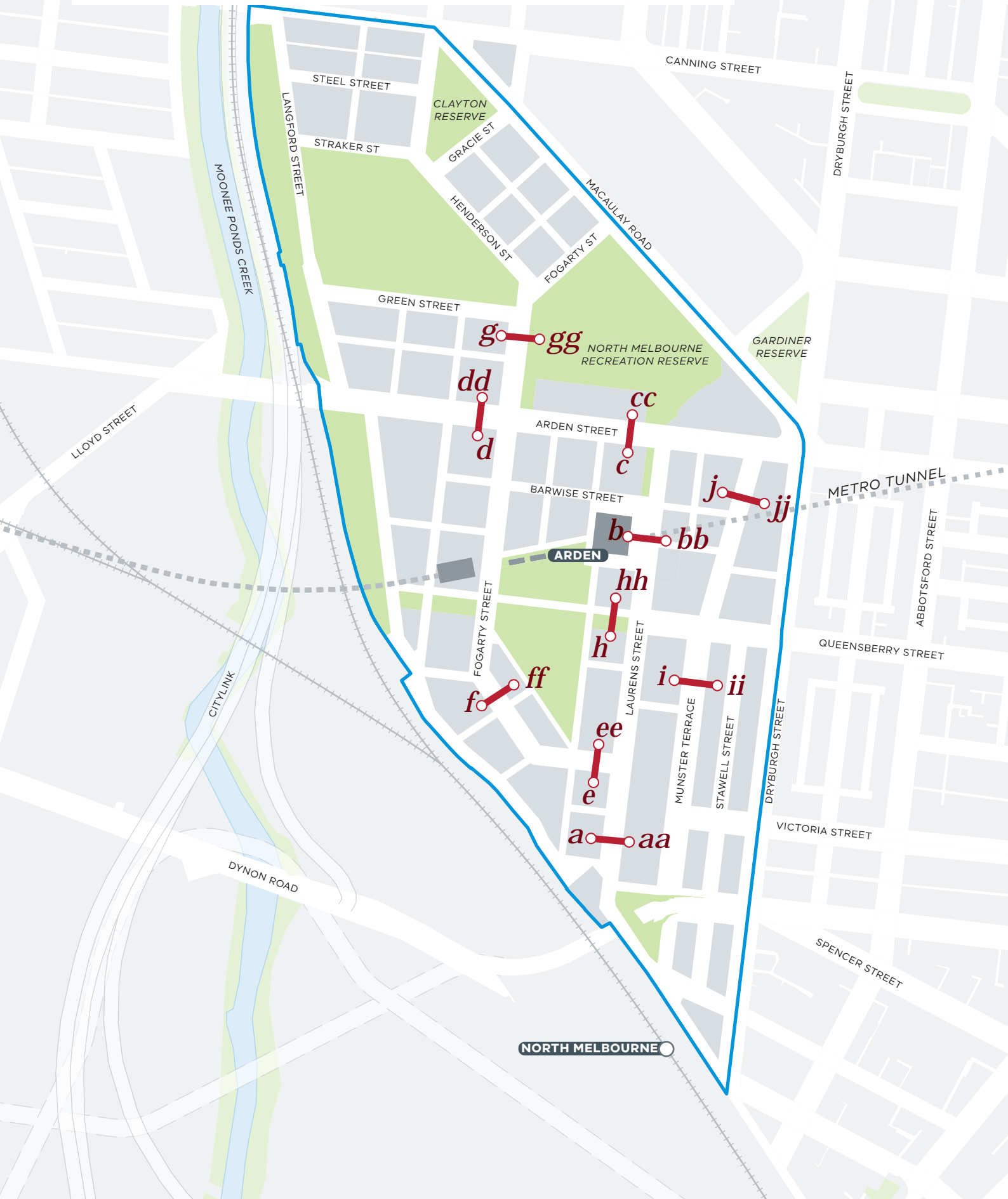
**Appendix 1: Conceptual street cross sections**

**Appendix 2: Relevant policies & projects**

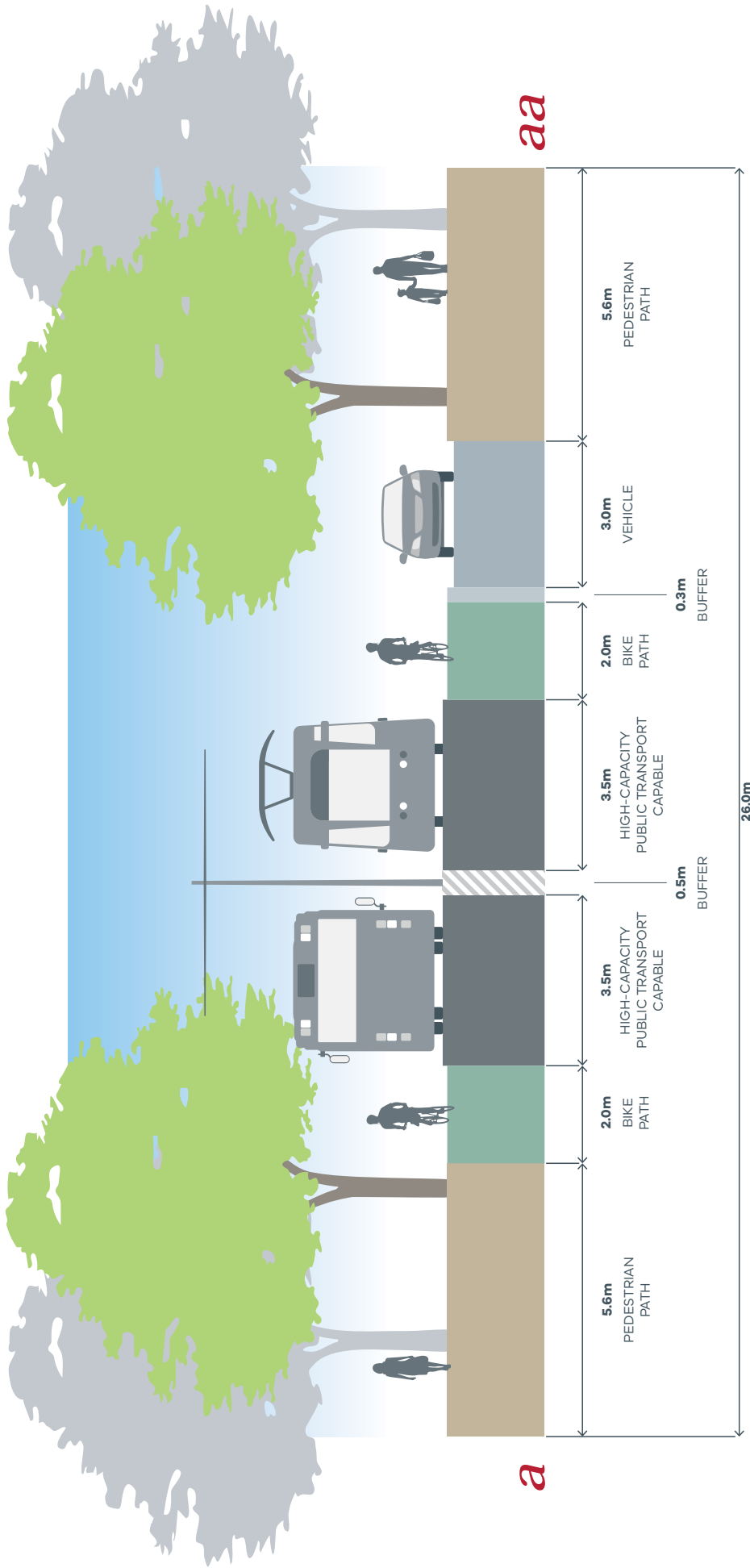
**Appendix 3: Glossary**

MACAULAY

# APPENDIX 1: Conceptual street cross sections



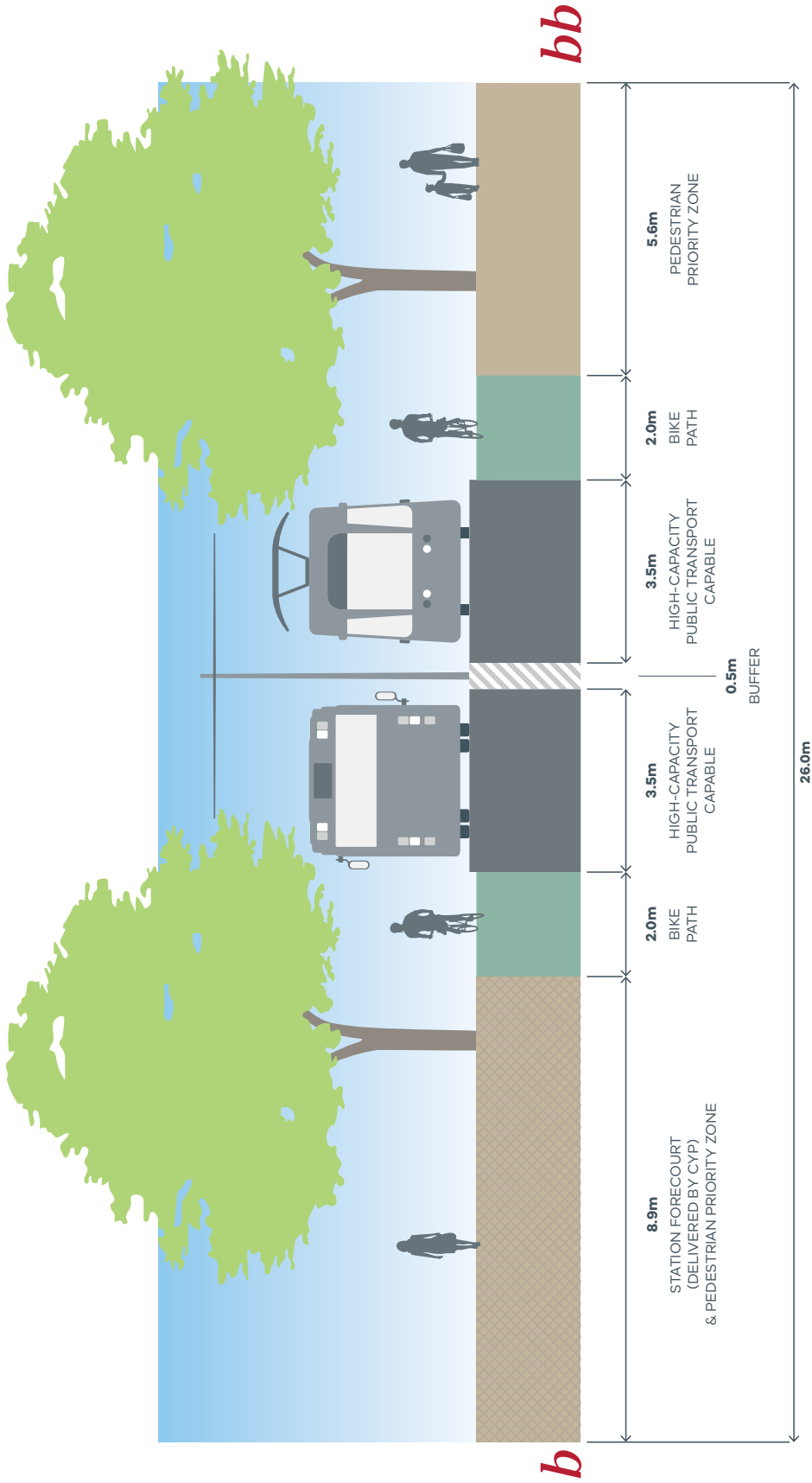
NORTH MELBOURNE



**Notes:**

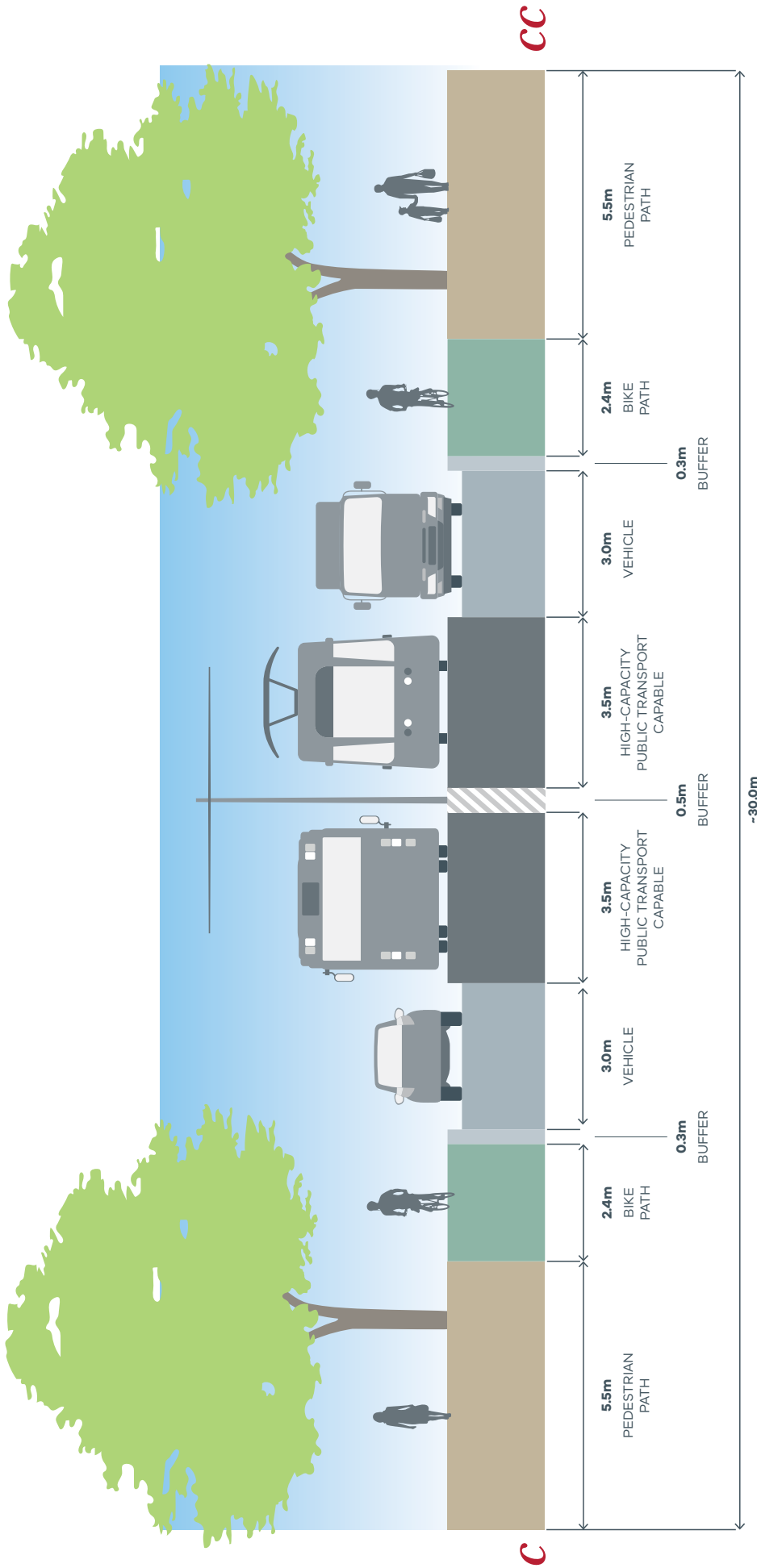
- Future modal interchanges to be delivered as accessible, cycle-/drive-over stops subject to detail design.
- Bike path widths may be reduced at future modal interchanges to manage speed if required by detail design.
- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- Vehicle and public transport lane to be designed with traffic calming devices including raised pedestrian crossings and the use of textural surface changes (such as the use of granitic paving stones, etc) to achieve a target speed of 30km/h.





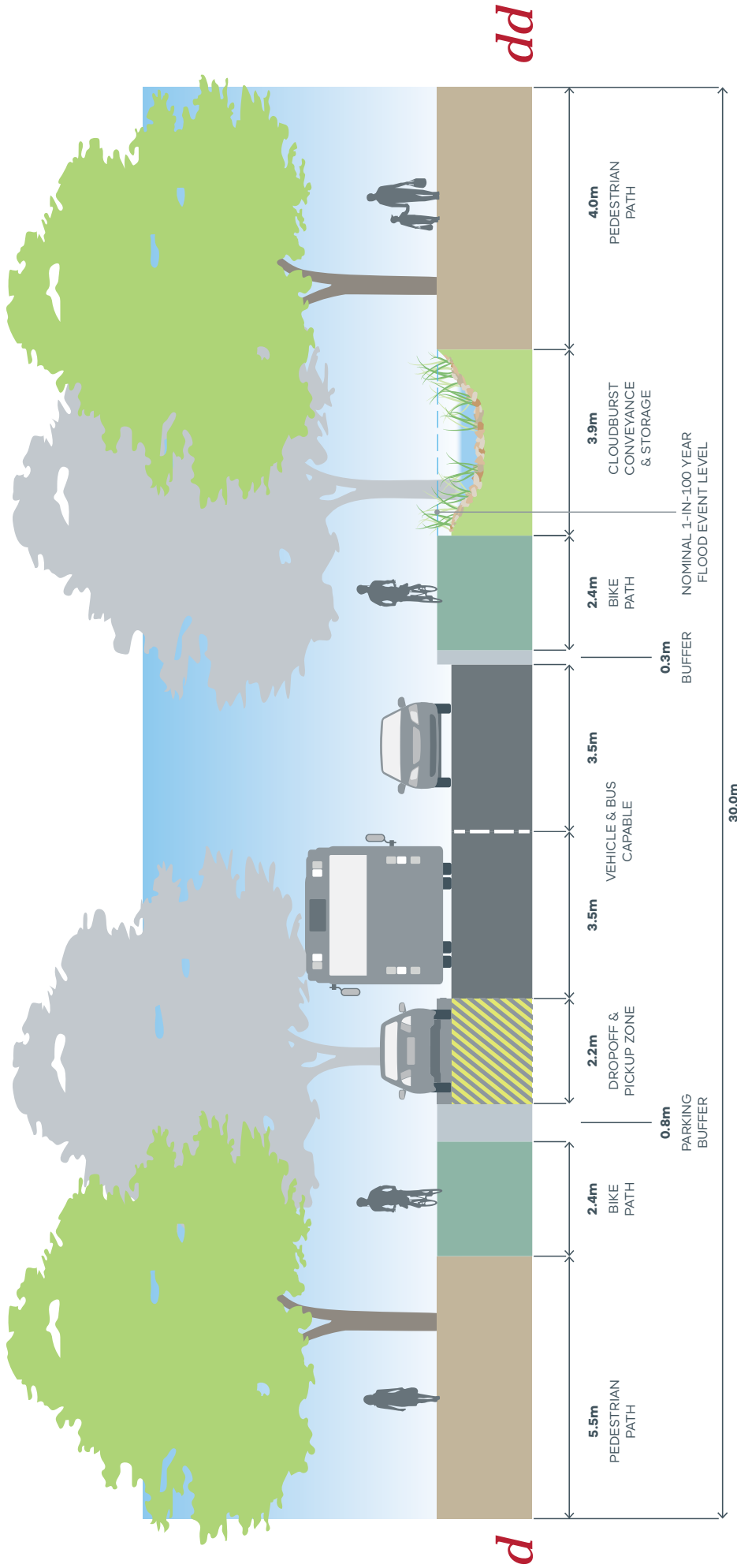
**Notes:**

- Future modal interchanges to be delivered as accessible, cycle-over stops.
- Bike path widths may be reduced at future modal interchanges to manage speed if required by detail design.
- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- Pedestrian path on eastern side of street to integrate with future station forecourt delivered by Cross Yarra Partnership.
- Pedestrian priority zones designed to accommodate service vehicle access
- A 10 km/hr speed limit should apply through this section and apply to bicycles, service vehicles and public transport to prioritise pedestrians and it should be designed accordingly (to achieve an outcome similar to the Bourke Street mall)



**Notes:**

- Future modal interchanges to be delivered as accessible, cycle-/drive-over stops subject to detail design.
- Bike path widths may be reduced at future modal interchanges to manage speed if required by detail design.
- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- High Capacity Public Transport Capable Corridor to be grade separated from adjacent vehicle lanes.
- Vehicle and public transport lane to be designed with traffic calming devices including raised pedestrian crossings and the use of textural surface changes (such as the use of granitic paving stones, etc) to achieve a target speed of 50km/h generally and 10 km/hr at modal interchanges.

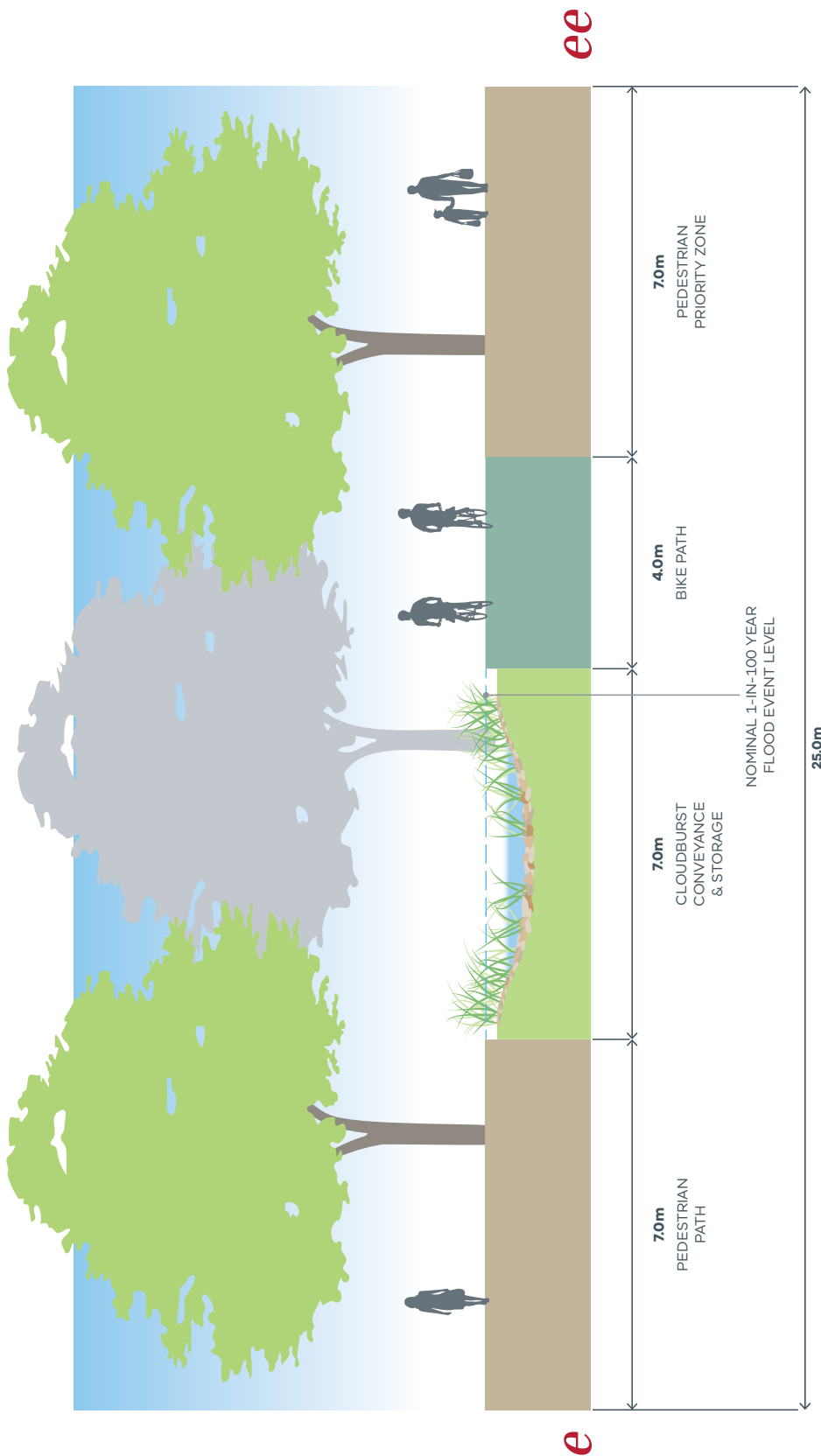


**Notes:**

- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes. Bike paths may be designed at grade of vehicle lane where abutting cloudburst elements required for flood management.
- DDA compliant pedestrian paths to be designed to cross over cloudburst conveyance at appropriate intervals that align with other laneways or pedestrian connections.

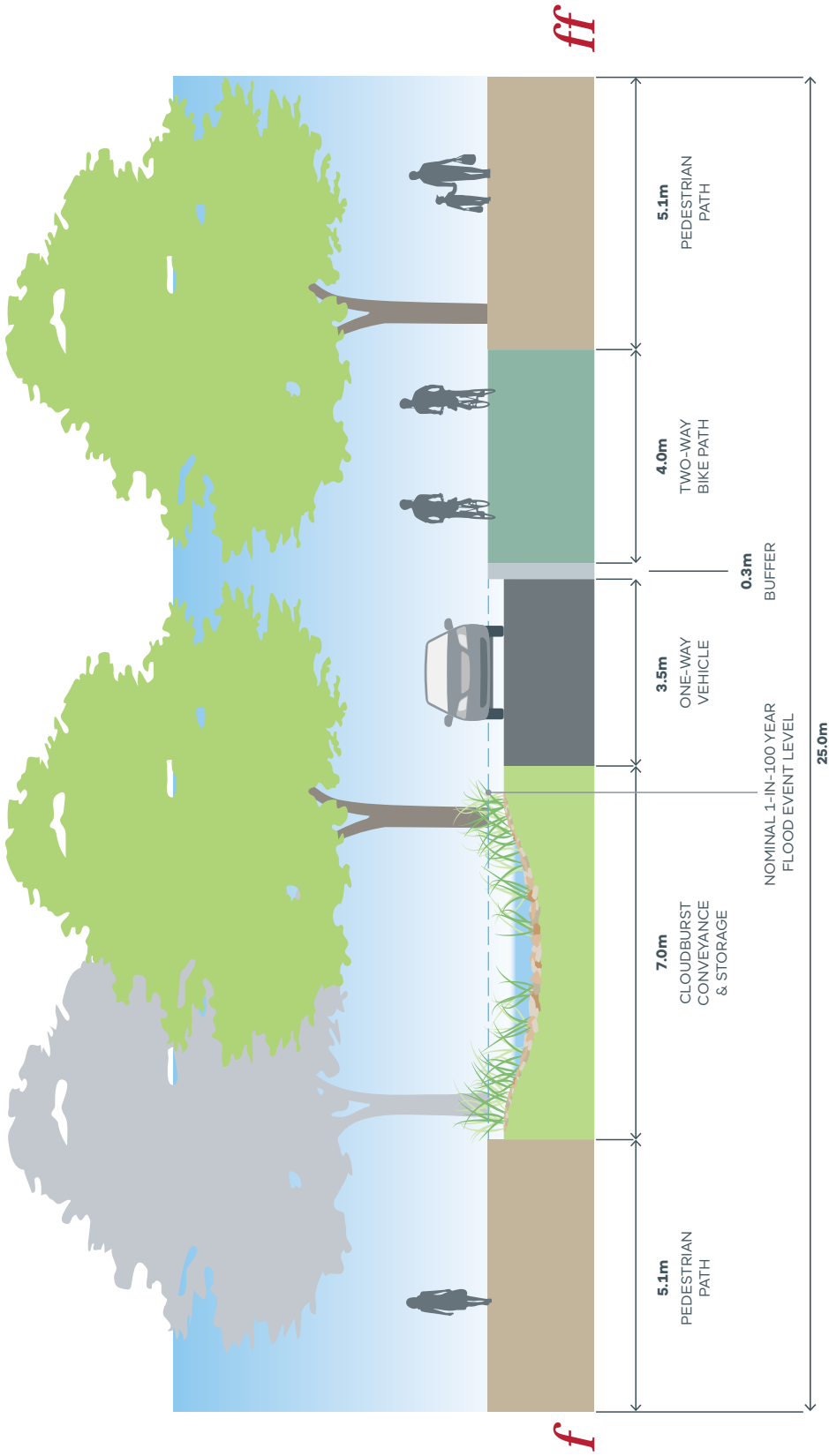
- Vehicle / public transport lane to be designed with traffic calming devices including raised pedestrian crossings, traffic & pedestrian signals and the use of textural surface changes (such as the use of granitic paving stones, etc) to achieve a target speed of 50km/hr generally and 10 km/hr at modal interchanges.
- Bike path widths may be reduced at future modal interchanges to manage speed if required by detail design.

- Detailed design of street sections and plans will explore opportunities to integrate water sensitive urban design within road reserve and cloudburst elements, in particular to provide for urban forest irrigation and stormwater treatment.



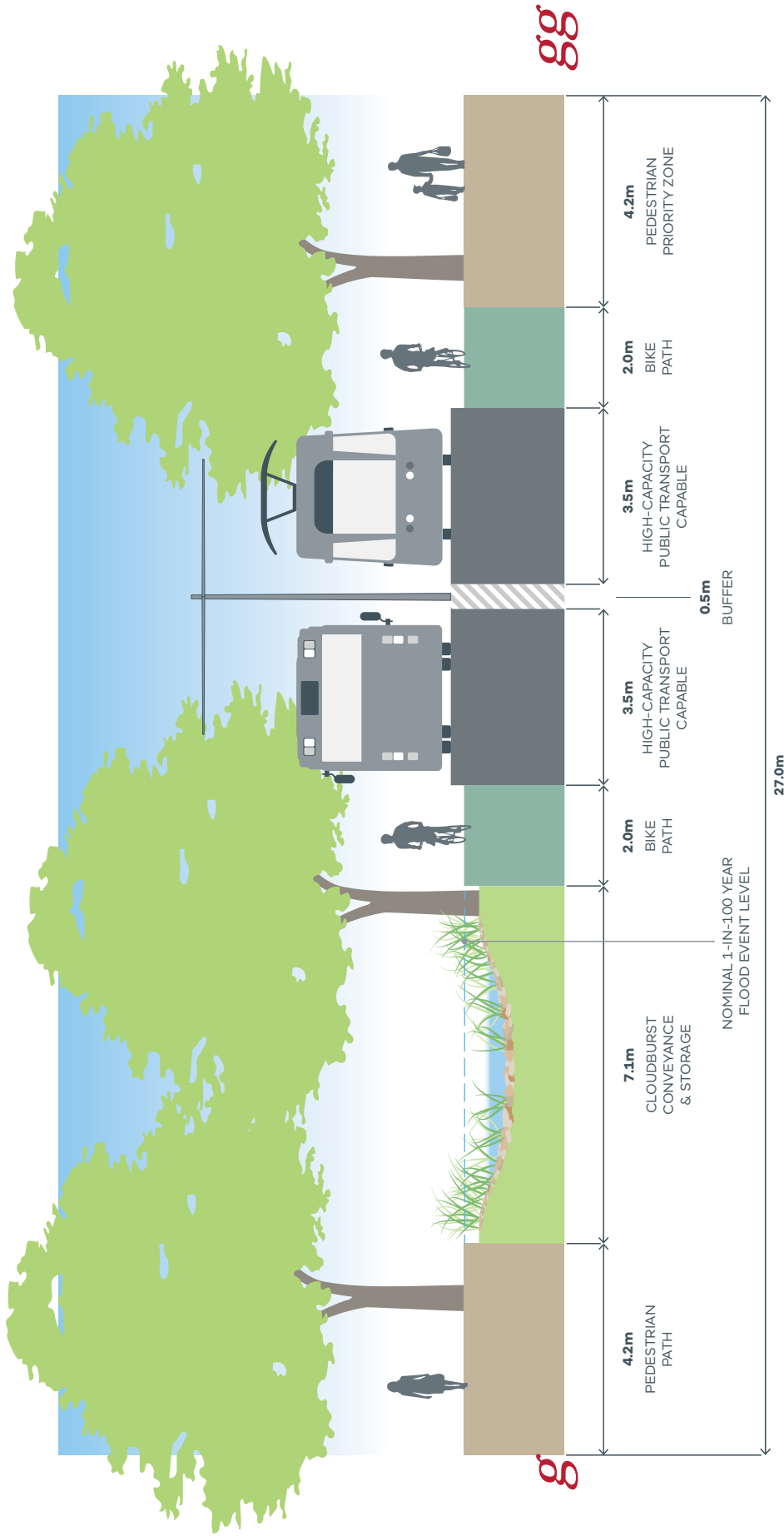
**Notes:**

- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- DDA compliant pedestrian paths to be designed to cross over cloudburst conveyance at appropriate intervals that align with other laneways or pedestrian connections.
- Pedestrian priority zones designed to accommodate service vehicle access.
- A 10 km/hr speed limit should apply to the Pedestrian Priority Zone and it should be designed accordingly (to achieve an outcome similar to the Bourke Street Mall).
- The cloudburst conveyance could be designed to one side of the street allowing a wider area for foot/bike service vehicle access, subject to detail design and the access and servicing needs of abutting development.
- Detailed design of street sections and plans will explore opportunities to integrate water sensitive urban design within road reserve and cloudburst elements, in particular to provide for urban forest irrigation and stormwater treatment.



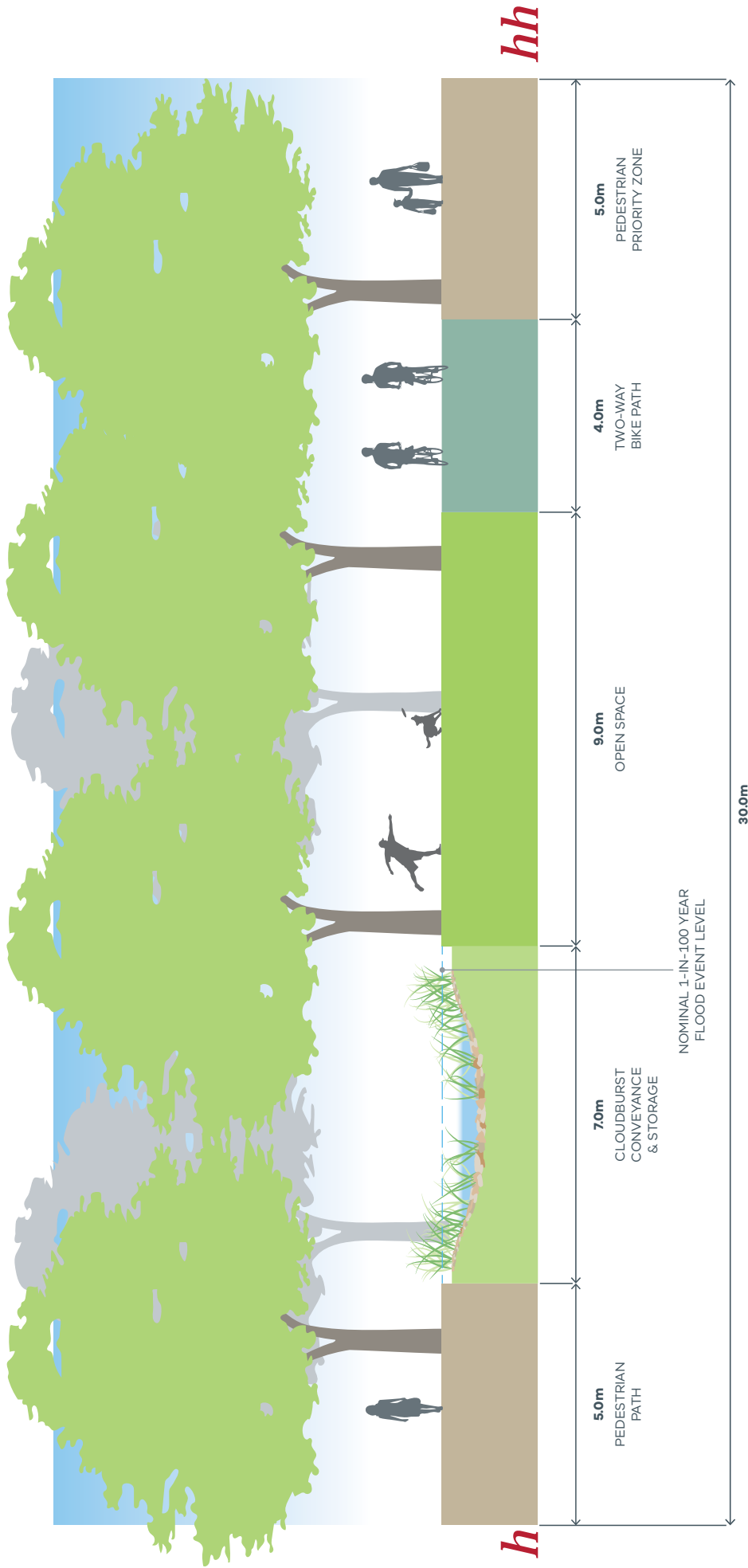
**Notes:**

- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- DDA compliant pedestrian paths to be designed to cross over cloudburst conveyance at appropriate intervals that align with other laneways or pedestrian connections.
- Vehicle lane to be designed with traffic calming devices including the use of textural surface changes (such as the use of granitic paving stones, etc) to achieve a target speed of 30km/h.
- Detailed design of street sections and plans will explore opportunities to integrate water sensitive urban design within road reserve and cloudburst elements, in particular to provide for urban forest irrigation and stormwater treatment.



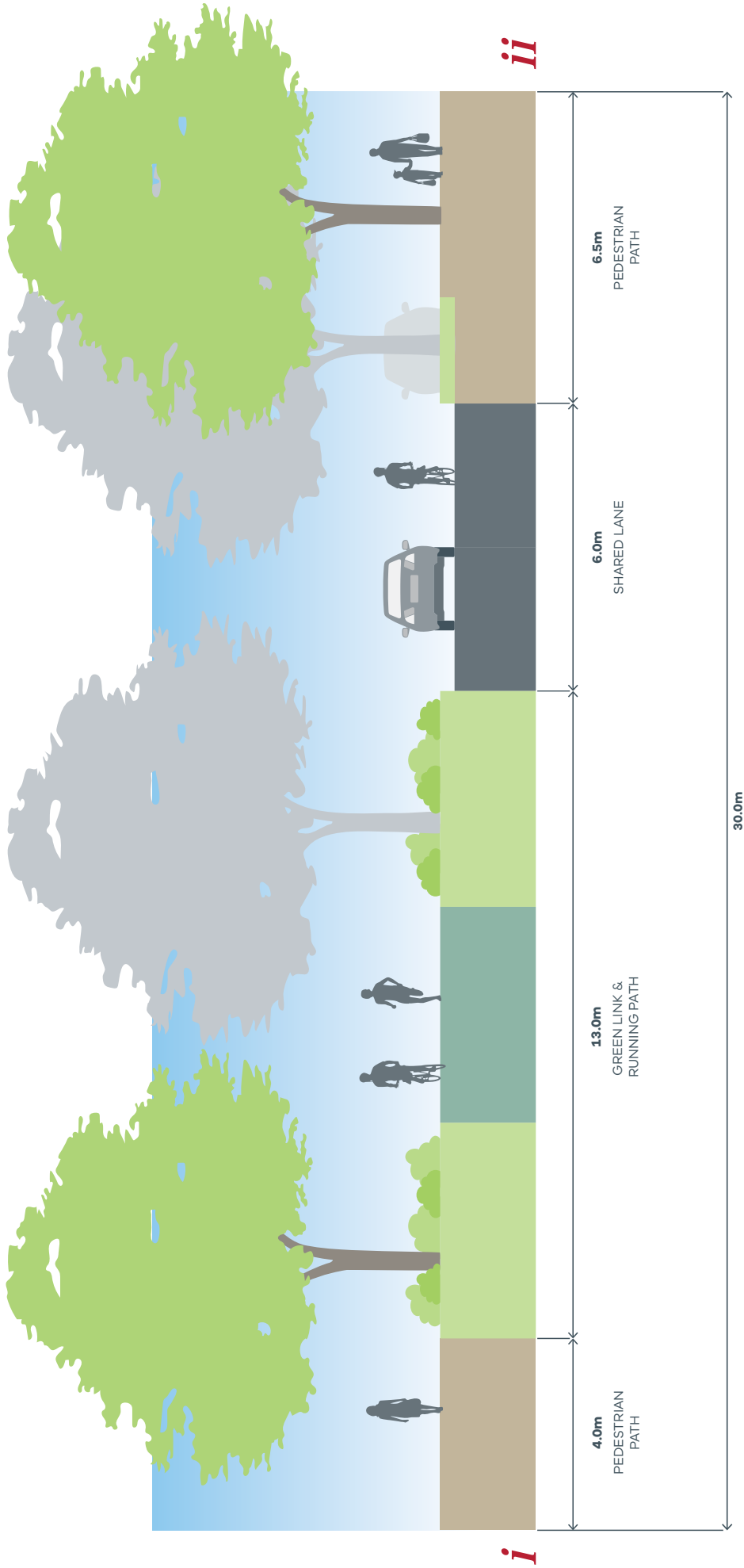
**Notes:**

- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- Bike path widths may be reduced at future modal interchanges to manage speed if required by detail design.
- DDA compliant pedestrian paths to be designed to cross over cloudburst conveyance at appropriate intervals that align with other laneways or pedestrian connections.
- High capacity public transport capable corridor to be grade separated from adjacent bike paths and designed to achieve a target speed of 30km/hr and 10 km/hr at modal interchanges.
- Pedestrian priority zones designed to accommodate service vehicle access and slower moving cyclists.
- Detailed design of street sections and plans will explore opportunities to integrate water sensitive urban design within road reserve and cloudburst elements, in particular to provide for urban forest irrigation and stormwater treatment.



**Notes:**

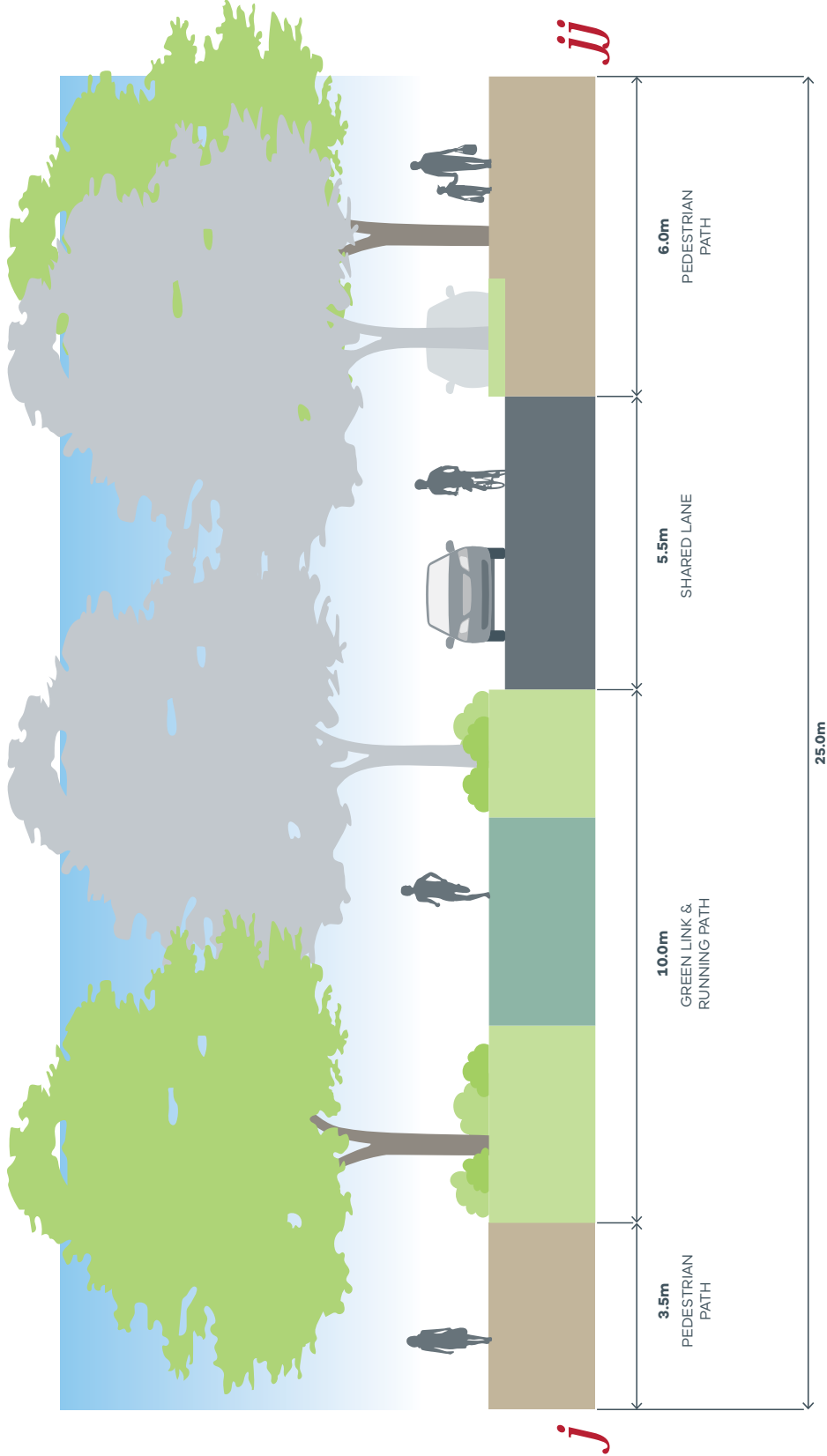
- Bike paths to be designed at grade of foot paths and be clearly delineated using material and surface textural finishes.
- DDA compliant pedestrian paths to be designed to cross over cloudburst conveyance at appropriate intervals that align with other laneways or pedestrian connections.
- Pedestrian priority zones designed to accommodate service vehicle access and slower moving cyclists.
- Detailed design of street sections and plans will explore opportunities to integrate water sensitive urban design within road reserve and cloudburst elements, in particular to provide for urban forest irrigation and stormwater treatment.



**Notes:**

- DDA compliant pedestrian paths to be designed to cross over green link at appropriate intervals that align with other laneways or pedestrian connections.
- Vehicle lane to be designed with traffic calming devices including raised pedestrian crossings, traffic & pedestrian signals and the use of textural surface changes (such as the use of granitic paving stones, etc) to achieve a target speed of 30km/h generally.
- Detailed design to manage vehicle cross overs over green link to ensure pedestrian and cyclist safety on running path.
- Detailed design to appropriately manage parking / loading requirements within eastern tree line.
- Detailed design to facilitate safe cycling while allowing for local vehicle access.
- Detailed design to appropriately incorporate street level changes within green link.





**Notes:**

- DDA compliant pedestrian paths to be designed to cross over cloudburst conveyance at appropriate intervals that align with other laneways or pedestrian connections.
- Vehicle lane to be designed with traffic calming devices including raised pedestrian crossings, traffic & pedestrian signals and the use of textural surface changes (such as the use of granitic paving stones, etc.) to achieve a target speed of 30km/h generally.
- Detailed design to manage vehicle cross overs over green link to ensure pedestrian and cyclist safety on running path.
- Detailed design to appropriately manage parking / loading requirements within eastern tree line.
- Detailed design to facilitate safe cycling while allowing for local vehicle access.
- Detailed design to appropriately incorporate street level changes within green link.

## APPENDIX 2: Relevant policies & projects

### Relevant state policies

#### *Plan Melbourne 2017–2050*

*Plan Melbourne 2017–2050* (Plan Melbourne) is the Victorian government's long-term plan for greater Melbourne to 2050. Plan Melbourne seeks to build on Melbourne's global legacy of distinctiveness, liveability and sustainability and respond to key challenges such as climate change and community connectedness.

Plan Melbourne identifies Arden as a major urban renewal precinct. The purpose of major urban renewal precincts is to take advantage of underutilised land close to jobs, services and public transport infrastructure, to provide new housing, jobs and services. Major urban renewal precincts will play an important role in accommodating future housing and employment growth and making better use of existing infrastructure.

#### *Melbourne Industrial and Commercial Land Use Plan (2020)*

Published in 2020, the *Melbourne Industrial and Commercial Land Use Plan* (MICLUP) provides a policy direction for the future of industrial and commercial land across the city.

The plan identifies existing industrial and commercial land as being of state, regional or local significance.

Within the Arden precinct there are two main areas of industrial land and an area of commercial land, which are all identified as areas of local significance under the plan.

The plan gives direction that in areas of local significance, councils are best placed to determine how these areas are planned for, which can include retention for employment or transitioning into other uses.

## **Homes for Victorians (2017)**

Released by the Victorian Government in March 2017, *Homes for Victorians* will increase and renew public housing and address homelessness. *Homes for Victorians* aims to deliver 6,000 new social housing homes, renew 2,500 existing public housing residences and provide support and services to 19,000 people who are homeless or at risk of being homeless.

## **Victoria's Climate Change Framework (2016)**

*Victoria's Climate Change Framework* articulates the Government's long-term vision and approach to climate change. Government has committed to reducing Victoria's greenhouse gas emissions by 15–20 per cent below 2005 levels by 2020 and to reducing emissions from government operations by 30 per cent below 2015 levels by 2020. The target for the 2020–2030 period is due to be set by 31 March 2020.

The priority sectors include high value and high growth industries of medical technologies and pharmaceuticals, new energy technologies, food and fibre, defence technologies, construction technologies, transport technologies, international education, and professional services.

## **Relevant local policies**

### **Municipal Strategic Statement**

City of Melbourne's Municipal Strategic Statement identifies Arden as an area that will undergo significant growth and change from its current role, and notes the land use conflicts that are evident in the area that will need to be addressed through strategic planning and planning controls. It notes that the Metro Tunnel will lead to major change to the east of the Moonee Ponds Creek Corridor.

The Municipal Strategic Statement also includes the vision for the broader City of Melbourne to be a "bold, inspirational and sustainable city". Underpinning this vision is the need to:

- accommodate forecast growth within the municipality while respecting the neighbourhood character and heritage value of established residential areas
- continue to protect ecological systems and biodiversity
- achieve a diversity of housing choices, housing affordability and a good standard of building design and amenity
- maintain a strong and diverse local economy, and
- maximise the use of sustainable transport.

### **Open Space Strategy (2012)**

The *Open Space Strategy* provides the overarching framework and strategic direction for delivering public open space planning in the City of Melbourne to 2027. The strategy provides direction for providing open space to meet the needs of forecast population growth, for responding to climate change and for the basis of an open space contributions policy. The strategy identifies the need to provide additional open space in transitioning urban renewal areas including Arden.

## Transport Strategy 2030 (2019)

City of Melbourne's draft *Transport Strategy 2030* prepares for the significant population growth and changes expected over the coming decades, and establishes a long-term vision for transport policy for the next 10 years. The draft *Transport Strategy 2030* sets out the approach to make sure there is space for the growing population to move around the city safely, efficiently and sustainably. This includes improving safety for people walking and riding bikes and prioritising efficient modes of transport with consideration to space and time.

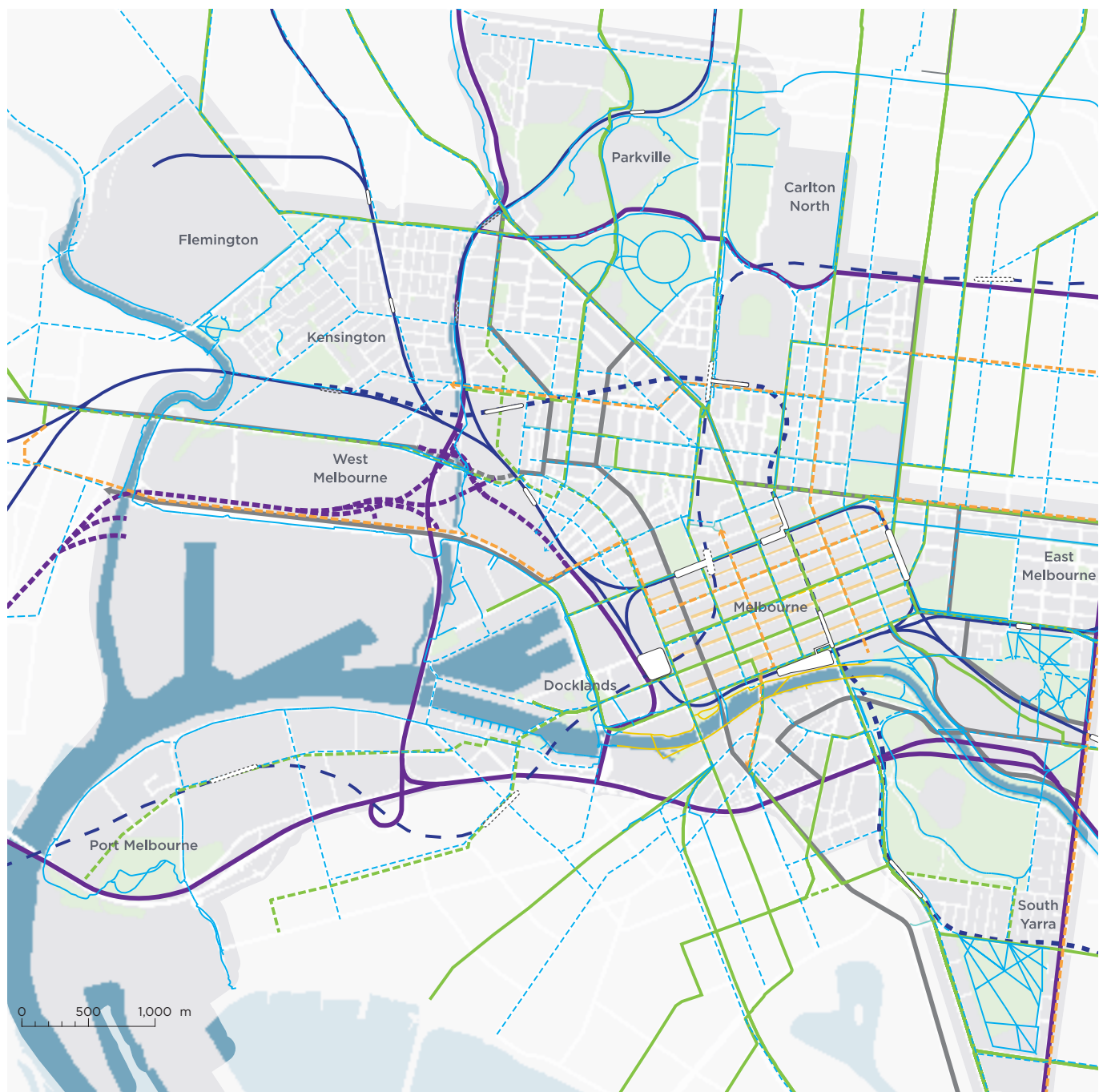


Figure 62 Proposed transport network including Arden. (Source: Melbourne City Council)

## ***Integrated Water Management Plan (2017)***

The City of Melbourne's *Integrated Water Management Plan* sets out the strategy for the holistic management of water, integrating water consumption, rainwater, stormwater, wastewater and groundwater management to secure the health of the water catchment and the city.

Arden–Macaulay and the Moonee Ponds Creek corridor are identified as a priority area requiring a place-based approach based on the following elements:

- Mitigating current and projected 2100 flooding without compromising urban design.
- Increasing access to and minimising connectivity barriers across Moonee Ponds Creek.
- Integrating water management with open space without overly encumbering the open space.
- Developing place-based targets for permeability and level of service for flood management.
- Meeting best practice stormwater quality discharge.
- Providing alternative, non-potable water supply to the precinct and beyond.

## ***Climate Change Mitigation Strategy to 2050 (2018)***

The *Climate Change Mitigation Strategy to 2050* sets out the City of Melbourne's approach to reducing greenhouse gas emissions. The strategy recommends a 29 per cent reduction of 2015 levels by 2030 in order to achieve net zero emissions by 2050. Key actions to achieve this include:

- Partnering with industry and Victorian and Australian Government agencies to reduce barriers and deliver zero emissions buildings and urban renewal precincts
- Facilitating the take up of the National Built Environment Rating Scheme for apartments across the municipality
- Renewing and implementing planning policies to support the development of zero emissions buildings and precincts
- Advocating and facilitating the transition from gas to electricity in buildings and precincts
- Continuing to reallocate road space to create more space for walking, cycling and green infrastructure
- Prioritising active and public transport through dedicated lanes, traffic light priorities, parking controls and road user pricing
- Advocating for energy efficiency public transport powered by renewable energy.

## ***Climate Change Adaptation Strategy Refresh (2017)***

The *Climate Change Adaptation Strategy Refresh* provides the direction for how the City of Melbourne plans, prepares for and responds to the impacts of climate change including flood, heat, drought and sea level rise. It outlines council's priorities for adapting to climate change. Five goals guide how the City of Melbourne works to deliver, partner and advocate for effective climate change adaptation:

- Goal 1** Enhance our natural environment and green spaces
- Goal 2** Shape our built form and urban renewal areas to withstand future climate change impacts
- Goal 3** Strengthen the resilience of our inclusive, family friendly and culturally diverse community
- Goal 4** Protect and enhance our diverse economy
- Goal 5** Continue to build Melbourne's adaptation capabilities and expertise.

## ***City of Melbourne Arts Infrastructure Framework (2016)***

The City of Melbourne Arts Infrastructure Framework aims to provide strategic direction on the delivery of arts infrastructure by the City of Melbourne and its external partners.

The strategy outlines the role of arts and creative practices in the city, including placemaking and the creation of a shared cultural identity and values, drawing communities together and improving health and wellbeing through participation in the arts, and as an active agent in innovative economies as well as a major existing contributor to Victoria's economy.

The Arden urban renewal precinct is identified as a unique opportunity for the inclusion of arts infrastructure, including the provision of a new arts hub, affordable housing for creative workers, creative spaces and live-work spaces, and embedding public art in the public realm and infrastructure projects.

## Relevant local plans

### **Arden–Macaulay Structure Plan (2012)**

The *Arden–Macaulay Structure Plan (2012)* was prepared to guide the long-term development of the Arden–Macaulay area. It includes a series of strategies and actions relating to land use including the delivery of new and improved open spaces and attractive and safe streetscapes. It also contains actions relating to transport, community infrastructure and sustainable infrastructure.

While parts of the *Arden–Macaulay Structure Plan* were enacted on an interim basis through a planning scheme amendment to the Melbourne planning scheme which introduced new planning controls for Macaulay (Amendment C190), it was decided that additional planning work should be undertaken for the Arden precinct due to the announcements of the Metro Tunnel and the new Arden Station. That work is now underway as part of the *Macaulay Structure Plan Refresh*.

### **Macaulay Structure Plan Refresh (underway)**

Interim controls relating to the Macaulay area of the *Arden–Macaulay Structure Plan (2012)* were introduced to the Melbourne Planning Scheme under Amendment C190. These interim controls included a Design and Development Overlay governing built form, and a development contributions plan to capture value uplift from the project to fund key infrastructure and public realm upgrades.

Since adopting the structure plan there have been changes to the planning context affecting the Macaulay area including pursuing separate planning processes for Arden and Macaulay, and progressing further work on flooding to develop new approaches to integrated water management in the area.

In response to these changes, the City of Melbourne is developing a refreshed structure plan for Macaulay that will deliver improved planning outcomes by reinforcing the strategic intent for Macaulay established by the 2012 structure plan.

### **West Melbourne Structure Plan (2018)**

City of Melbourne has developed a new *West Melbourne Structure Plan* to guide future growth in West Melbourne. The plan includes tailored planning controls to protect character and heritage buildings, the creation of a new high street at Spencer Street and the unlocking of 10,000 square metres of new open space.

Melbourne Planning Scheme Amendment C309 proposes to implement the *West Melbourne Structure Plan* by introducing new tailored planning controls in the Planning Scheme. This will guide the use and development of land and celebrate the character of West Melbourne as outlined in the structure plan.

## APPENDIX 3: Glossary

### **Active perimeter / edge / frontage**

Street frontages or edges where there is an active visual engagement between those in the street and those on the ground and upper floors of buildings.

### **Active recreation**

Leisure time physical activity undertaken outside of structured, competition sport. Activities within the wider range of physical activity options including walking, running, cycling and other sports.

### **Active uses**

Uses that generate many visits, in particular pedestrian visits, over an extended period of the day.

### **Activity area**

An area that provides a focus for enterprises, services, shopping, employment, housing, transport and social interaction. They range in size, intensity and composition

### **Adaptive reuse**

The capacity of a building or space to respond to changing community needs and to accommodate new land uses and users.

### **Affordable housing**

Housing, including social housing, that is appropriate for the housing needs of any of the following – very low-income households, low income households and moderate income households, as defined in the *Planning and Environment Act 1987*. See the Act for further details and definitions.

### **Amendment C309**

Implements the West Melbourne Structure Plan's land use and development recommendations by making changes to the planning scheme.

### **Amendment C190**

Implements the *Arden–Macaulay Structure Plan's* Stage 1 land use and development recommendations by making changes to the planning scheme.

### **Amenity**

The features of an area, street or building, that provide facilities and services that contribute to physical or material comfort and benefit and are valued by users. An amenity can be tangible, such as open space, seating, a swimming pool or gym; or intangible, such as pleasant views, air quality, or proximity to a local school or supermarket.

### **Anchor enterprises / institutes**

Entities with a large stake and economic role in a city or place, usually through a combination of important economic and spatial impacts due to their physical size, sector impacts, employment generating and spending role.

### **Australian Height Datum (AHD)**

The adopted national height datum that generally relates to height above mean sea level. Elevation is in metres.

### **Blue-green space**

Spaces that are designed to integrate natural systems that provide the ecological and amenity value associated with urban greening and also provide stormwater management functions.

### **Built form**

The function, shape and configuration of buildings and their relationship to streets and open spaces.

### **Capital City Open Space**

Open spaces that are iconic and synonymous with the character and identity of Melbourne and often used to stage activities and events of international, national, state and metropolitan importance. Examples include Federation Square (Capital City), Domain Parklands (Capital City) and Royal Park (State). The size varies to suit the identified purpose and urban context in which they are located

### **Capital works**

Building and engineering works that create an asset in the public realm such as park upgrades, street upgrades or pipe upgrades.

### **Cloudburst streets**

Used to channel and direct the large amounts of water that can be dumped during a cloudburst. By using a v-shaped profile and raised kerbs, water will flow to the middle of the street and away from buildings.

### **Community benefit**

While there is no explicit definition of community benefit in the relevant legislation or planning policy context in Victoria, it typically refers to items such as open space, roads and drainage, affordable housing, community infrastructure and strategic land uses.

### **Community housing**

Secure, affordable, long term rental housing managed by not-for-profit organisations for people on low incomes or with special needs.

### **Community infrastructure**

Public places and spaces that accommodate community facilities and services and support individuals, families and groups to meet their social needs, maximise their potential and enhance community wellbeing.



**Density**

The number of measured units in an urban area divided by the area of the land that they occupy, for example dwelling density would comprise the number of dwellings that occupy a land area expressed as dwellings per hectare.

**Development application**

A formal application for development of a site. The application is usually made to local council and consists of an application form, supporting reports and plans of the proposed building or works.

**Development contributions**

Document that sets out the contributions expected from each individual landowner to fund infrastructure and services. Refer to Part 3B of the *Planning and Environment Act 1987*.

**Dwelling**

A place of residence, such as house or apartment.

**Fine grain design**

An urban environment with small-scale spaces, street blocks and a mix of uses to foster diverse activities and walkability.

**Floor area ratio (FAR)**

The ratio of allowable total floor area to the site area.

**Floorplates**

The shape and amount of leasable area on an individual floor of a building.

**Green street**

A public thoroughfare that integrates garden beds, tree planting and water sensitive urban design (WSUD).

**Gross floor area (GFA)**

The total floor area contained within the building.

**Housing stress**

When housing costs rise too high relative to household incomes. Households are typically considered to be in housing stress when the household has an income level in the bottom 40 per cent of the nation's income distribution and is paying more than 30 per cent of its income in housing costs.

**Interface**

The space between buildings and the urban space demarcated by that building.

**Knowledge economy**

Production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advancement.

**Land use**

The primary purpose for which the land is used or may be developed.

**Local open space**

Open spaces that complement the larger reserves and provide smaller, more intimate spaces within safe and easy walking distance of the local community. Examples include Golden Elm Reserve in South Yarra and Chapman Street Reserve in North Melbourne.

**Levee**

An embankment built to prevent the overflow of a water body.

**Liveability**

A measure of city users' quality of life used to benchmark cities around the world. It includes socioeconomic, environmental, transport and recreational measures.

**Mixed use**

The composition of land use mix. The arrangement – quantity and distribution – and type of uses within a geographic area or development site.

**Neighbourhood open space**

Open spaces that provide a diversity of character and facilities that appeal to the local community at a neighbourhood level. Examples include Argyle Square and North Melbourne Community Centre.

**Open space**

Publicly-owned land set aside for recreation, nature conservation, passive outdoor enjoyment and public gatherings. This includes public parks, gardens, reserves, waterways, forecourts and squares.

**Overland flow path**

Overland flow occurs in heavy rainfall when water runs off neighbouring properties and driveways, following natural paths and into stormwater drains or local creeks.

**Overlay**

The planning scheme maps zoning and overlays of land. Overlays only apply where there is a special feature of the land.

**Passive recreation**

Casual use of open space such as sitting, walking, reading a book, meeting people enjoying the ambience and relaxing.

**Permeability**

The extent to which the urban form permits or restricts the movement of people and vehicles in different directions.

**Place creation**

A multi-faceted approach to the planning, design and management of spaces that collaborates with a community with the intention of co-creating a place that promote people's health, happiness, and well-being.

**Planning controls**

The zones, overlays, and particular provisions contained within the planning scheme.

**Planning scheme**

The rules for the use and development of land, set out by the Victorian Government and local councils.

**Planning Scheme Amendment**

Changes to the planning scheme are called amendments.

**Potable water**

Water that is safe to drink or to use for food preparation

**Public housing**

Long-term rental social housing for people on low incomes that are most in need. Public housing is owned and managed by the Victorian Government.

**Public realm**

External urban spaces that are publicly accessible and belong to everyone. This includes streets, squares, parks, green spaces and other outdoor spaces.

**Resilience**

The capacity of individuals, institutions, businesses and systems within a city to adapt, survive and thrive no matter what kind of chronic stresses and acute shocks they experience.

**Scale**

The size of a building in relation to its surroundings, or the size of parts or details of the building, particularly in relation to the scale of a person.

**Sensitive use**

A land use, such as residential uses, that is sensitive to emissions from industry and infrastructure.

**Setback**

The distance of a building wall from any lot boundary. A building front setback can add to the perceived width of the street, provide additional public or private space, and allow space for landscaping.

**Shared equity**

A housing model in which the home buyer shares the capital cost of purchasing a home with an equity partner, allowing lower income home buyers to buy sooner as they need a lower initial deposit and have lower ongoing housing costs.

**Sleeving**

The process of surrounding infrastructure or services with other uses on the outside of the building to produce a better interface with streets, for example sleeving car parking with active uses such as retail.

**Social housing**

Short and long-term rental housing that is owned and run by the Victorian Government or not-for-profit agencies.

**Topography**

The arrangement of the natural and artificial physical features of an area.

**Typology**

The classification of (usually physical) characteristics commonly found in buildings and urban places, according to their association with different categories, such as intensity of development, land use or architectural style.

**Urban heat island effect**

A worldwide phenomenon where cities become warmer than nearby suburban and regional areas, particularly at night due to a range of factors include higher thermal mass and lower urban greening.

**Urban renewal**

The redevelopment of land in established parts of the city from industrial or low-intensity precincts to precincts with more employment, commercial or residential opportunities.

**Urbanisation**

The process of making an area more urban.

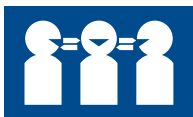
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**Phone interpreters in all  
languages: 9651 0716**

اتصلوا بنا للتحدث إلى مترجم شفهي عربي عن مخططنا لمستقبل مركز أردن الاجتماعي.

致電我們要求一位廣東話翻譯員來協助您了解我們對 Arden 鄰里所作出的未來規劃。

给我们打电话，通过普通话翻译了解我们对 Arden 邻里街坊的未来规划。

Na soo wac si aad ula hadasho mutarjum **Soomaali** ah si uu kaaga caawimo wixii ku saabsan qorshaynta mustaqbilka agagaarka Arden Neighbourhood.

Gọi cho chúng tôi để nói chuyện với thông dịch viên **tiếng Việt** về việc hoạch định tương lai cho khu vực lân cận Arden.

**DRAFT** Arden  
**STRUCTURE PLAN**

**JUNE 2020**