





Environment and Planning Directorate

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DEFINITIONS

Active frontages occur when people can interact between the buildings and the streets and public spaces, such as shop fronts, building entrances and transparent building facades.

Active travel is travel that involves physical activity such as walking and cycling. Active travel can also include walking and/or cycling involved when using public transport.

Active uses are uses that generate activity at the ground floor. Active uses include cafés, shop fronts and building entrances.

Blocks and sections are how areas of land are identified in the ACT. The city is divided into divisions, suburbs, sections and blocks. The Territory Plan zoning determines what activities/uses can occur on the blocks. Blocks are usually leased to one entity.

Built form relates to the buildings, associated structures and surrounding public spaces.

Human scale reflects a sympathetic proportional relationship between the built form and human dimensions where people are not overwhelmed by the built form. Human scale contributes to a person's perception of buildings or other features in the public domain. It is typically referred to when discussing the bulk and scale of development.

Land use zones are allocated by the Territory Plan to all land within the ACT. They define what land uses can or cannot occur on a piece of land. See the Territory Plan and more about the zoning system at www.legislation.act.gov.au/ni/2008-27

Living (green) infrastructure is the term most accurately used to describe the integrated system of vegetation, open spaces and waterways in urban areas. It also includes the soil and ground surfaces.

Mixed-use development includes a mix of complementary land uses such as restaurants and small shops at ground level and residences above. Mixed use development can be horizontal or vertical.

Podium or building base refers to the lower storeys of a tall building that people passing by see and interact with. It is designed to present an appropriate human scale to the streets and public spaces. Podiums can be used to transition down to

lower-scale buildings, and minimise the impact of car parking and servicing areas.

Shared-use path is a path that is restricted to nonmotorised transport, with the exception of motorised wheelchairs and power assisted pedal cycles. Both pedestrians and cyclists share these paths.

Shared zone (or shared space) is a road or place where the road space is shared safely by vehicles, cyclists and pedestrians. A shared zone may include the removal of traffic lights, pedestrian barriers, road markings and kerbs to give equal priority to all users and require negotiation between users.

Solar access is the ability of a building or public space to receive sunlight without obstruction from other buildings.

Surveillance or passive surveillance is the 'eyes on the street' from residents and people going about their daily activities to create a sense of safety onto streets and public spaces.

Visual cues are elements in the public domain that contribute to a person's understanding of a place. For example, buildings may gradually get taller as you travel closer to the town centre, providing an understanding that you are approaching a major centre.

Water sensitive urban design (WSUD) is the planning, design and/or construction of the built environment to minimise water runoff and ensure any runoff causes the least amount of damage. It is also about wise use of that water to improve our urban environment.

Pedestrian-friendly street is a street where pedestrians and cyclists have safe access at key points across the street, retaining access along the street for all users; cars, motorbikes, cyclists and pedestrians, creating a low speed environment (20-30 kilometres per hour), where differences in speeds between users are minimised.

Urban heat island effect is a metropolitan area which is significantly warmer than its surrounding areas. The main cause of the heat island effect is from the use of materials which store and radiate heat in to the surrounding areas, for example concrete and bitumen.





EXECUTIVE SUMMARY

THE ACT GOVERNMENT HAS PREPARED A MASTER PLAN FOR THE CALWELL GROUP CENTRE (THE CENTRE) THAT SETS OUT A VISION, PLANNING PRINCIPLES, SPATIAL FRAMEWORK AND PLANNING STRATEGIES TO GUIDE GROWTH AND DEVELOPMENT IN THE CENTRE OVER TIME.

This Calwell Group Centre Master Plan has been prepared in response to actions outlined in the ACT Planning Strategy (2012). These include the need to investigate opportunities for urban intensification around the centre, to ensure everyone has access to a range of facilities, services and opportunities for social interaction, and to encourage active travel to and from the centre.

The centre is active, with a mix of shops and services to provide for the local community. The centre was built in the 1990s with the development of the surrounding residential areas in south-east Tuggeranong. The style of architecture is reflective of the period, with some buildings incorporating colonnades or awnings around the perimeter.

Preparation of the master plan involved extensive background research and analysis, including:

- » consideration of strategic planning directions and policies
- » responding to outcomes from community and stakeholder engagement activities that were undertaken as part of the master plan process, and
- » consideration of background research, reports and analysis.

The key findings include:

- » the centre benefits from proximity to the arterial road network, connecting private and public transport to the Tuggeranong town centre and city centre
- » the centre is convenient due to the availability of surface car parking
- » there is potential for some growth in the centre over time, including residential development
- » in general, the centre's poor pedestrian and cycling connections to and through the centre could be improved
- » the amenity could be improved in the public domain and there are limited public spaces for people to meet outside commercial premises, and
- » the centre can feel unsafe in some areas, particularly at night.

ENVIRONMENT AND PLANNING DIRECTORATE

In response to these findings, this master plan outlines a vision which captures what is valued about the centre and sets out what it could become in the future.

The new vision for Calwell group centre is:

CALWELL GROUP CENTRE WILL BE AN ATTRACTIVE,
ACCESSIBLE, CONVENIENT CENTRE PROVIDING
RESIDENTS OF SOUTH-EAST TUGGERANONG
WITH A RANGE OF GOODS AND SERVICES AND
OPPORTUNITIES TO SOCIALISE AND PARTICIPATE
IN COMMUNITY LIFE.

.....

The vision is supported by five planning principles, which inform planning strategies. The principles and strategies provide direction and guidance for the future development of the centre over the long term, considering the range of issues identified during community engagement and in the background research and analysis.

Some of the key recommendations proposed by this master plan include:

- » providing new opportunities to better establish the centre as a community and social hub
- » improving the public domain by providing spaces for people to linger and socialise with play spaces for young people
- » improving the connections within the centre and to local destinations to improve the pedestrian and cycling experience and encourage active travel
- » encouraging more activity and passive surveillance for the public spaces to improve the safety in the centre for all users
- » providing opportunities to integrate residential into the centre whilst retaining solar access to public spaces, and
- » improving the living (green) infrastructure of the centre by planning for large shade trees and landscaping to offset the potential urban heat island effect.

1. INTRODUCTION

Calwell Group Centre Master Plan

Map 1: Master plan study area





1.INTRODUCTION

THE ACT GOVERNMENT IS COMMITTED TO THE RENEWAL AND REVITALISATION OF CANBERRA'S NEIGHBOURHOOD CENTRES, WHICH INCLUDE SUBURBAN GROUP CENTRES SUCH AS CALWELL. THIS MASTER PLAN IS THE RESULT OF EXTENSIVE COMMUNITY AND STAKEHOLDER ENGAGEMENT AND HAS BEEN INFORMED BY BACKGROUND STUDIES AND ANALYSIS. THIS MASTER PLAN OUTLINES STRATEGIES AND MAKES RECOMMENDATIONS WITH THE AIM TO PROVIDE AN INTEGRATED AND COMMUNITY SUPPORTED VISION FOR THE CALWELL GROUP CENTRE (THE CENTRE).

Over the past few years, key strategic planning documents for the ACT were introduced including the AP2: A New Climate Change Strategy and Action Plan for the ACT (2012), Transport for Canberra (2012), the ACT Planning Strategy (2012), the Minister for Planning and Land Management's Statement of Planning Intent (2015), the Active Travel Framework (2015), Towards Zero Growth - Healthy Weight Action Plan (2013) and the Business Development Strategy (2015). The ACT Planning Strategy encourages a more compact city by focusing urban intensification in town centres, around group centres and along major public transport routes. The ACT Planning Strategy identifies the need to support convenient access to a range of facilities, services and opportunities for social interaction by reinforcing the role of group centres as community hubs.

The master plan process included two main stages of community engagement. The first stage began with the release of information posters in May 2015. The posters and associated community engagement activities outlined some key planning issues and sought feedback on the preliminary challenges and opportunities that exist in the centre. These informed the second stage of community engagement in March and April 2016, which sought feedback on the draft master plan. Community and stakeholder engagement played an important role in the development of this master plan, with the Environment and Planning Directorate consulting local residents, local businesses, community groups, school students, ACT Government agencies and private interest groups.

This master plan provides an overview and background analysis of the study area. It recommends a vision, spatial framework, planning principles and strategies that will guide growth and development in the centre over time.

Key strategies and recommendations are based on the background analysis and community engagement feedback received as part of the master plan process. **Maps 1** and **2** illustrate the master plan study areas.

1.1 MASTER PLAN STUDY AREA

Situated in the suburb of Calwell in the Tuggeranong Valley, the master plan study area is bound to the north by Johnson Drive, an arterial road connecting to the Monaro Highway, and Were Street to the south. The centre has diverse uses including commercial, community and urban open space. The study area for Calwell Group Centre Master Plan is illustrated in **Map 1**.

While focused on the centre, the master plan also considers the relationship with the areas of influence adjacent to the study area, including Tuggeranong Homestead to the north and the Calwell District Playing Fields and local schools to the south-east. The areas of influence adjacent to the study area are illustrated in **Map 2**.

This master plan considers connections, in particular pedestrian and cycle links, from the areas of influence to the study area. The master plan also considers the connections to surrounding residential areas, facilities, public transport and public spaces.

The centre is approximately 5 kilometres southeast of the Tuggeranong town centre. The suburb of Richardson is to the north and Theodore to the south. There are views from the north-west part of the centre to Tuggeranong Homestead to the north.

Map 2: Master Plan study area-areas of influence





1.2 **BLOCK AND** SECTION MAP

Under the Territory Plan, Canberra is divided into divisions, suburbs, sections and blocks, with blocks usually leased to one entity. Blocks and sections are referred to in this document. Map 3 provides a quick reference to help the reader identify blocks and sections within the master plan area.

1.3 WHAT A MASTER **PLAN DOES**

A master plan defines what is important about a place and identifies opportunities for preserving and enhancing the quality of that place. A master plan offers town and group centres long-term planning frameworks for urban renewal and is guided by key actions and strategies identified in the ACT Planning Strategy.

It identifies the need to investigate opportunities for urban intensification around the centre and ensures everyone has access to a range of facilities and services. It aims to improve vibrancy by providing opportunities for social interaction by reinforcing the role of the centre as a community hub.

This master plan provides a vision, a spatial framework and strategies to guide the future development of the Calwell group centre. A master plan is a non statutory document that can recommend planning policies, opportunities for land release, public domain upgrades and further studies.

1.3.1 PLANNING POLICIES

The Territory Plan is the key ACT statutory planning document that provides the policy framework for the administration of land use and planning. It specifies what can and cannot happen on each block of land. Potential changes and inclusions in the Territory Plan take the form of a revised precinct code for Calwell.

A precinct code sits within the Territory Plan and provides place specific planning controls. This master plan, which is informed by community input, makes recommendations for a new precinct code for the centre about appropriate land use, building heights, building setbacks and location of active frontages.

1.3.2 OPPORTUNITIES FOR LAND RELEASE

Land release is the sale of Territory-owned land. The supply and release of land in the ACT considers factors such as forecast population changes, household changes, demand for land and the capacity to cost effectively deliver key infrastructure and services.

1.3.3 PUBLIC DOMAIN **UPGRADES**

Infrastructure and public space improvements are required to realise the vision and some of the strategies of this master plan. There are opportunities for the private sector to contribute to the public domain through partnerships with the government or as part of off-site works. Works undertaken by the ACT Government will involve further investigations by various government agencies and funding consideration through future government budget bids. Public domain upgrades undertaken by the ACT Government are based on a number of considerations including population growth, the age of existing assets and infrastructure and the wider budget context within the Territory.

1.3.4 FURTHER STUDIES

These may be required to progress strategies that are either outside the parameters of a master plan or may take more time to investigate.

Map 3: Block and section map CHISHOLM CLARTCRESCENT TUGGERANONG RICHARDSON 450 TUGGERANONG HOMESTEAD JOHNSON DRIVE 787 OUTTRIM AVENUE 798 CALWELL DISTRICT DOWNARD STREET PLAYING FIELDS CASEXCAPESCENT 11 795 CALWELL 796 THARWA DRIVE 0 LEGEND Section boundary Block boundary 1 Section number Block number

1.4 MASTER PLAN PROCESS

The master plan process includes three main stages, as illustrated in **Figure 1**, with opportunities for stakeholders and the public to provide input during stages 1 and 2.

The process commenced with Stage 1, the gathering and analysis of information, including community engagement, to help inform the preparation of the draft master plan.

The draft master plan represented Stage 2 of the process. Feedback from stakeholders and the community informed Stage 3, the development of the final master plan. The implementation of the master plan may include new planning controls in the form of a precinct code in the Territory Plan, potential land release, public domain upgrade recommendations subject to future budgets and potential further studies. **Figure 1** shows how the preparation of a precinct code runs concurrently with the master planning process.

1.4.1 COMMUNITY ENGAGEMENT

Community engagement forms a critical part of the analysis in the early stages of the master planning process and in refining recommendations in the master plan.

The background and analysis section of this master plan and the community engagement reports provide details of how community engagement was undertaken and a summary of feedback received. The community engagement report, which includes a summary of messages heard from each stage of community engagement, can be seen at: www.planning.act.gov.au

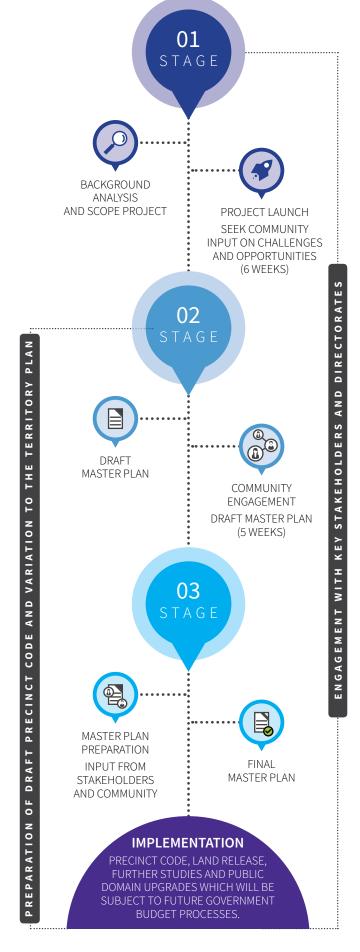
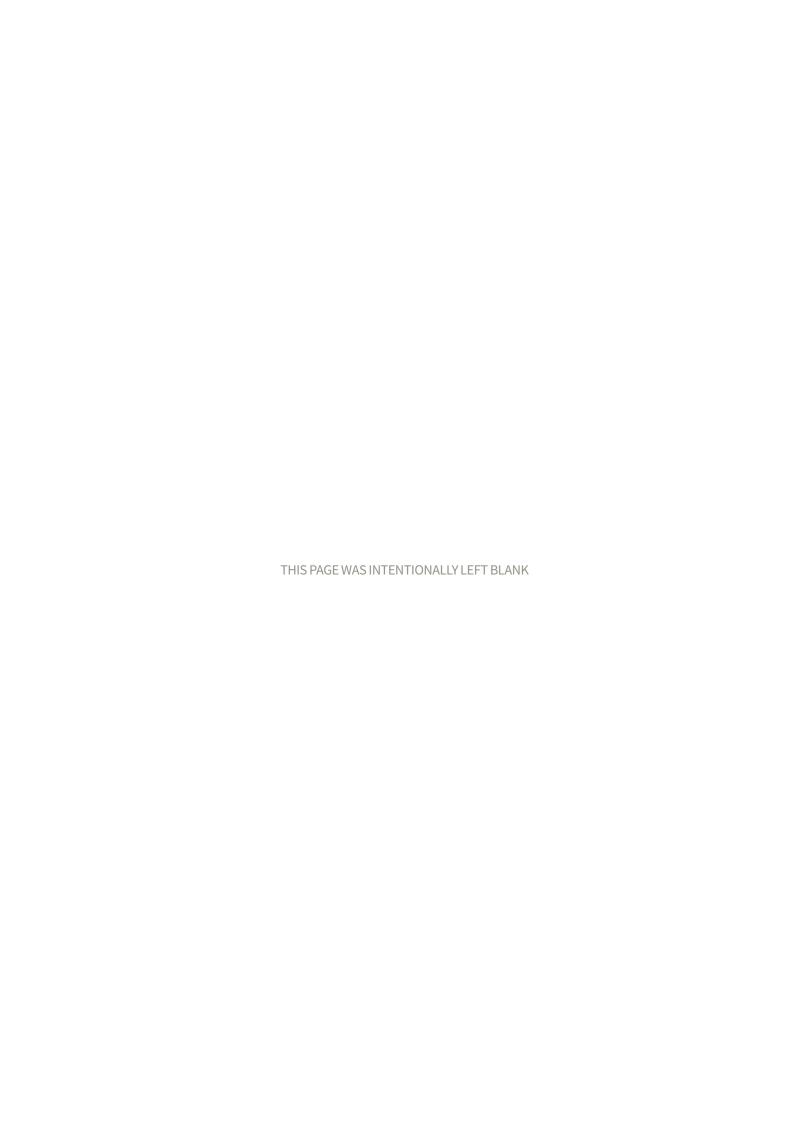


Figure 1: Master plan process



2. PLANNING CONTEXT

Calwell Group Centre Master Plan



2. PLANNING CONTEXT

21 STRATEGIC PLANNING

The Calwell Group Centre Master Plan is a strategic policy document that seeks to translate the ACT Government's broader metropolitan policies at a local level. The following section outlines the policy context that applies to the centre.

2.1.1 THE STATEMENT OF PLANNING INTENT

The Minister for Planning and Land Management released his Statement of Planning Intent in 2015. The statement sets out the key planning priorities for the ACT Government for the next three to five years.

The statement establishes four key planning priorities and associated actions:

- » create sustainable, compact and liveable neighbourhoods with better transport choices
- » deliver high quality public spaces and streets through placemaking
- » deliver an outcome-focused planning system to reward design excellence and innovation, and
- » engage with the community, business and research sectors to optimise planning outcomes.

The Calwell Group Centre Master Plan has incorporated and progresses the detail of these priorities.

2.1.2 ACT PLANNING STRATEGY

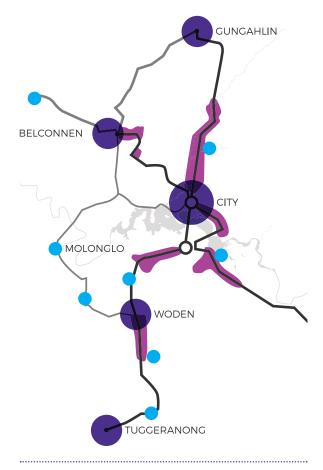
The ACT Planning Strategy (2012) was prepared in response to changes in the ACT's economic, demographic and environmental circumstances. The strategy outlines a series of directions that will create a more sustainable city:

- » focus urban intensification in town centres and group centres supported by public transport to improve the vibrancy of centres
- » improve the urban quality and liveability of Canberra

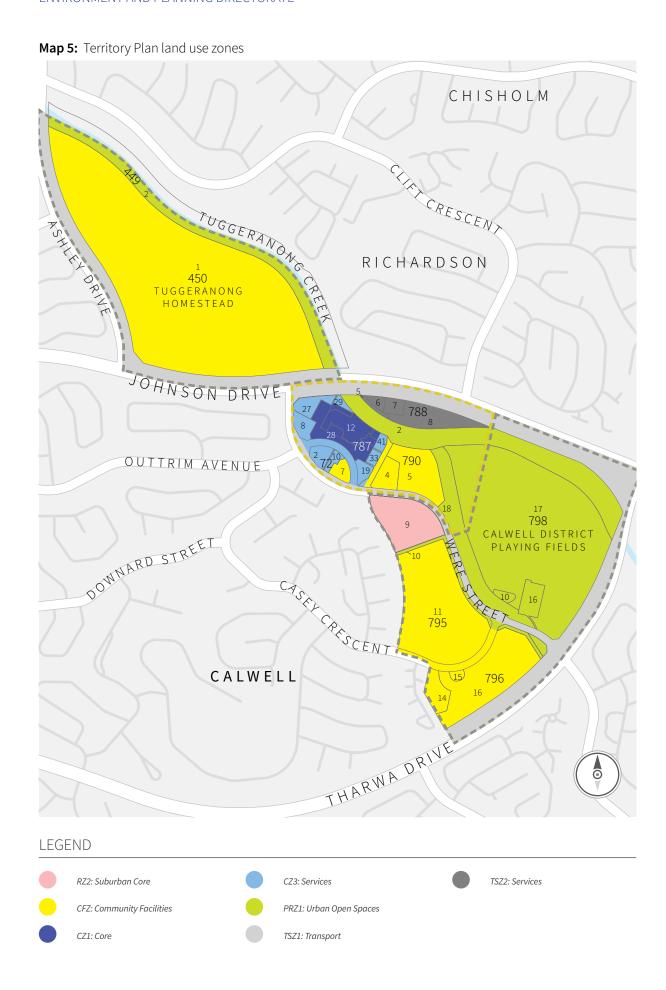
- » managing the land and natural resources of the area to conserve where appropriate and to manage growth to ensure a prosperous region, and
- » support convenient access to a range of facilities, services and opportunities for social interaction by reinforcing the role of group centres as community hubs.

The ACT Planning Strategy's first direction is of particular relevance to this process and promotes a more compact and efficient city by focussing urban growth in town centres, around group centres and along main transit corridors, as illustrated in Map 4.

Map 4: ACT Planning Strategy focuses growth in town centres, around group centres and along transport corridors



- Group Centres Employment Centres/Town Centres
- Urban Intensification localities



2.1.3 TRANSPORT FOR CANBERRA

Transport for Canberra (2012) is a companion policy to the ACT Planning Strategy. It seeks to integrate urban planning and transport to ensure Canberra grows in a way that is sustainable, compact and vibrant and maximises opportunities for urban renewal. Key policy directions include:

- » integrate land use and transport through the Frequent Network of public transit corridors
- » make walking and cycling the easiest travel options to encourage active travel, and
- » strategically manage the road network and parking.

In addition, the importance of building an integrated transport network will help to improve the efficiency and effectiveness of Canberra's transport network. Integrated transport networks generate economic opportunities and jobs. They are also a catalyst for creating vibrant and attractive urban environments.

2.1.4 ACTIVE TRAVEL **FRAMEWORK**

Building an Integrated Transport Network - Active Travel outlines how the government can better integrate planning and the delivery of active travel initiatives to further encourage and support walking, cycling and use of public transport (which also involves walking/riding to the bus stop or final destination). Good urban planning can shape our neighbourhoods to encourage people to walk, cycle or ride for recreation and social interaction.

2.1.5 CLIMATE CHANGE **ACTION PLAN**

AP2: A New Climate Change Strategy and Action Plan for the ACT (2012) is the ACT Government's strategic policy on climate change. AP2 guides the Territory's strategy to reduce greenhouse gas emissions by 40% of 1990 levels by 2020 and to transition the ACT to zero net emissions by 2060.

AP2 provides a pathway to achieve emission reductions through energy efficiency and increased use of renewable energy. It also identifies

opportunities for improved environmental performance of buildings and infrastructure.

The projections for the ACT and region are for an increasingly hotter and drier climate with more extreme weather events. Since 2009 the ACT Government has been taking mitigation actions and assisting the community to increase its resilience.

Examples of significant mitigation measures are:

- » legislating emission reduction targets for the ACT in 2010: zero by 2060; 80% by 2050; 40% by 2020 (based on 1990 levels)
- » investing in renewable energy sources (solar and wind) to meet the ACT's renewable energy target of 90% by 2020 (introduced in 2013) and revised to 100% by 2020 in 2016
- » introducing the Energy Efficiency Improvement Scheme obliging ACT electricity retailers to help customers save energy
- » adopting the Carbon Neutral ACT Government Framework with its target of zero net operational emissions by 2020, and
- » investing in public transport, including light rail, and improving the cycle and pedestrian networks.

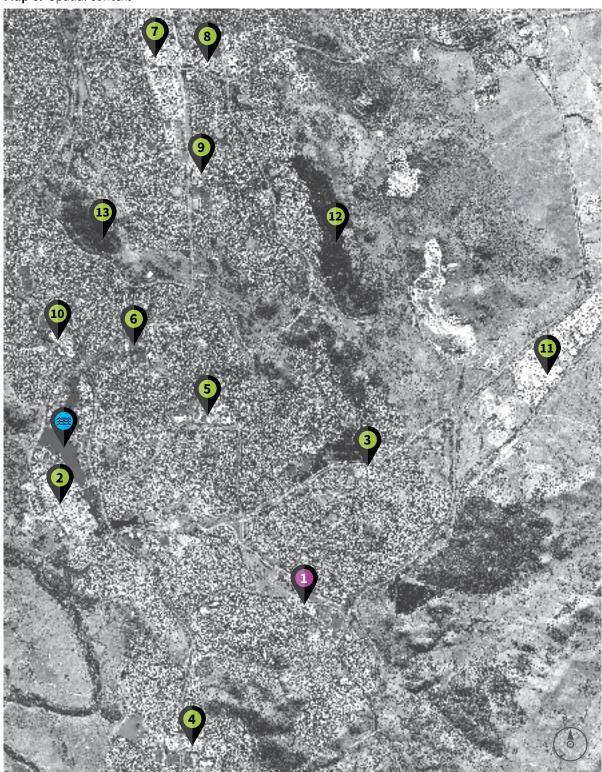
The ACT Government has developed a Climate Change Adaptation Strategy to guide the community, city and natural environment to adapt to climate change and become more resilient to its impacts.

2.1.6 ACT WATER STRATEGY

The ACT Water Strategy 2014–44: Striking the Balance was endorsed by the ACT Government in July 2014. The strategy incorporates three themes and a detailed implementation plan. It will guide the management of the Territory's water supply, water resources and catchment practices over the next 30 years. It builds on the original ACT Water Strategy, Think Water, Act Water.

While the emphasis on the original strategy was on water security following the 2003 bushfires and the Millennium Drought, the new strategy also focuses on improved water quality in lakes and streams and greater community participation in a number of key components, such as improving catchment health.

Map 6: Spatial context



PLACES



STATUTORY PLANNING 2.2

2.2.1 NATIONAL CAPITAL PLAN

The National Capital Plan is the strategic plan for the ACT managed by the National Capital Authority on behalf of the Australian Government. The National Capital Plan ensures Canberra and the Territory are planned and developed in accordance with their national significance.

The National Capital Plan includes 'designated' areas, which are areas considered to be of national importance and include the central national area, national institutions, diplomatic areas, Lake Burley Griffin, approach routes to the city and hills, ridges and buffers. While there is no designated land within the master plan area, the Tuggeranong Valley has large areas, such as the hills, ridges and buffers that separate the Tuggeranong Valley from other districts. The approach route along the Monaro Highway is a designated area.

2.2.2 TERRITORY PLAN

The Territory Plan is the key statutory planning document in the ACT, providing the policy framework for the administration of land use and planning in the ACT. The purpose of the Territory Plan is to manage land use change in a manner consistent with strategic directions set by the ACT Government, Legislative Assembly and community.

The Calwell group centre is mostly zoned as commercial land uses Commercial Zone 1: Core Zone (CZ1: Core Zone) and Commercial Zone 3: Services Zone (CZ3: Services Zone) as shown in Map 5. The land surrounding the commercial area includes Communities Facilities Zone (CFZ: Community Facilities Zone), Parks and Recreation Zone/Urban Open Space (PRZ 1: Urban Open Space Zone) to the south-east and Services Zone (TZ2: Service Zone) to the north as shown in Map 5.

A Territory Plan variation is an anticipated outcome of the master plan. The variation will implement a revised precinct code into the Territory Plan to update the current Calwell Precinct Map and Code. A precinct code outlines place-specific planning controls such as land use, building heights, building design elements, building setbacks and where active frontages should be located.

Development applications for development in the centre will be assessed against the Calwell Precinct Code and other general codes of the Territory Plan.

2.3 SPATIAL CONTEXT

The need to accommodate Canberra's growth was carefully considered during the early 1960s by the National Capital Development Commission, through the Metropolitan Plan for Canberra.

Each district was planned with a hierarchy of commercial centres comprising town, group and local centres. This structure helped to develop strong communities that had good access to services and jobs and reinforced Canberra's relationship with its setting. Town centres serve their wider district as the main commercial focus. Group centres provide shops and services for a 'group' of suburbs and local centres typically cater for a single suburb or a cluster of suburbs. Group centres of this era are often co-located near high schools and district playing fields and community facilities.

Tuggeranong was one of several districts identified for development. Each district is linked by arterial roads and separated by open space.

The ACT Planning Strategy (2012) supports the centres hierarchy approach, which encourages a more compact city by focusing urban intensification in town centres, around group centres and along the major public transport corridors.

Tuggeranong has six group centres and a town centre to service a population of 85,743 in 2015.1

The group centres are Kambah group centre. Wanniassa group centre, Erindale group centre, Chisholm group centre, Calwell group centre and Lanyon Market Place (Map 6). Tuggeranong has a large number of group centres for its population, which impacts on the size of some of the centres. Calwell is a relatively small group centre.

The centre is located in south-east Tuggeranong adjacent the urban open space corridor and Tuggeranong Creek, which flows into Lake Tuggeranong and the Murrumbidgee River.

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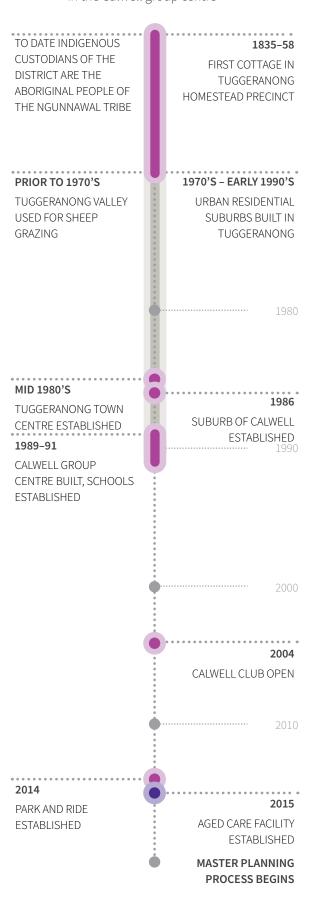
Tuggeranong town centre was designed to be in the centre of the original plan for the district. However, the area to the west of the Murrumbidgee River was not progressed, primarily for environmental reasons, to protect the Murrumbidgee River. Current studies by the ACT Government are investigating the possibility of residential development between Greenway and the Murrumbidgee River, in the area referred to as Western Greenway.

2.4 PLANNING HISTORY

Calwell was named after the Labor politician Arthur Augustus Calwell. The Calwell group centre was developed in the early 1990s to service the suburbs of Calwell, Richardson, Isabella Plains and Theodore. The centre also serviced Conder, Banks and Gordon prior to the development of the Lanyon Market Place, a group centre to the south-west of the Calwell group centre.

As was the case for the development of all districts in this period, the local schools were established at a similar time as the suburb. The area has two government schools, Calwell High School and Calwell Primary School, which includes a preschool. St Francis Assisi Primary School is a non-government school (Map 2). The Calwell District Playing Fields are located close to the centre and highly utilised, primarily on the weekends. Tuggeranong Homestead, a heritage listed property, is to the north of the centre.

Figure 2: Timeline of major developments in the Calwell group centre



3. BACKGROUND AND ANALYSIS

Calwell Group Centre Master Plan



3. BACKGROUND AND ANALYSIS

31 **COMMUNITY ENGAGEMENT**

Community engagement for the Calwell Group Centre Master Plan included two main stages. Each stage informed the master plan as it evolved.

A range of engagement activities for both stages of engagement included:

- » two 'meet the planners' sessions
- » workshops with primary school students
- » feedback forms (online and hard copy)
- » meetings with individual key stakeholders including the Tuggeranong Community Council and South East Tuggeranong Residents Association (SETRA), Minders of Tuggeranong Homestead (MOTH) and lessees and traders
- » information displays at the Tuggeranong Library and Calwell Shopping Centre, and
- » information, feedback and online community forums through project and engagement webpages and social media presence through the Environment and Planning Directorates' (EPD's) Facebook and Twitter accounts.

3.1.1 STAGE 1 - ISSUES STAGE

The first stage of engagement was held from May 2015 to July 2015. The engagement informed the community and stakeholders about the master plan process and identified the key issues and opportunities for the centre. More than 200 people participated in this process.

Key messages from Stage 1 of community engagement indicated a desire for:

- » a larger range of food and dining options, including restaurants and cafés that 'spill out' into open space with active frontages
- » better places for children to play, such as a new playground or a park with barbecues adjacent surrounding green space and trees
- » improvements to the public spaces around the centre including places to sit and meet friends outdoors

- » more trees and general maintenance of the public areas to beautify the area
- » improved safety around the centre is considered a priority, including lighting car parks and walkways, and
- » retain the ease of access and convenience, including accessible parking.

There were mixed views regarding parking and traffic flow in the centre. Some people said parking had improved in recent years with others saying parking and traffic flow were issues at peak times. It was also reported there was not enough accessible parking at the centre.

There were mixed views about the layout of the centre; some people liked shopping under one roof while others preferred windows and shops opening out to the outside, including cafés and restaurants (i.e. active frontages). The variety of shops and services was consistently stated as working well. However, some people felt more cafés, specialty shops and supermarket competition were needed.

3.1.2 STAGE 2 -DRAFT MASTER PLAN

The second stage of community engagement sought community feedback on the draft master plan over a five week period. Analysis of the 25 formal submissions showed broad support for the proposals in the draft master plan including proposed upgrades to the public domain and play areas, improvements to pedestrian and cyclist access to and within the centre and additional accessible parking close to shops and services.

Key messages from the Stage 2 community engagement included:

- » strong support for an enhanced public domain and play space to the south-east of the centre next to active areas including cafés
- » strong support for improvements to landscaping, including shade trees and seating

- » strong support for improvements for pedestrian and cyclist connections to and within the centre
- » strong support for active frontages in the centre including cafés and restaurants spilling out into public areas
- » support for higher building heights in some areas to integrate residential development into the centre however some concerns for buildings up to 6 storeys, and
- » support for retaining convenient car parking close to shops and services.

Community engagement will also be undertaken on any changes to the Territory Plan through a separate consultation process.

Key messages from Calwell Primary School and St Francis of Assissi Primary School students during both stages of engagement included:

- » better safety in the centre especially safe travel options to school and to the centre. Suggested improvements included safe crossing points on surrounding roads, additional wider paths and better maintenance of existing paths
- » more variety of shops at the centre including a cafe
- » improved places for kids to play that catered for all age groups, including a better playground and more public spaces with seating and shade
- » create a centre with more trees and landscaping, including a garden or a nature park, and
- » more recreation and community facilities such as a gymnasium, parkour, skate park, sports courts, a clubhouse and a dog park.

Further information on community feedback can be found in the Community Engagement Report - Stage 2 at www.planning.act.gov.au. Where appropriate, these key messages and relevant background information informed the development of this master plan.

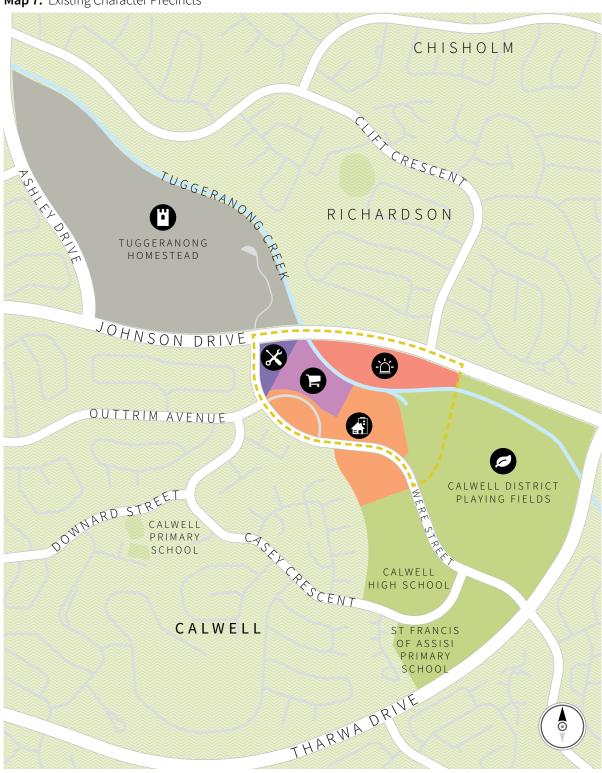
3.2 CHARACTER AND **HFRITAGE**

3.2.1 CHARACTER

The Calwell group centre is made up of six existing character precincts as shown in Map 7. These precincts are identifiable by their location, land use, built form, street address and streetscapes:

- » The **commercial core precinct** includes the main shopping centre, smaller commercial buildings and the surface car parking and loading zones that surround the centre. The Calwell shopping centre, the bistro (formally the Tavern) and smaller commercial premises were constructed in the early 1990s, with the architecture reflecting this period. Curved awnings and solid colonnades are a feature of the built environment.
- » The **commercial services precinct** is to the west of the commercial core precinct and contains the clubs, service station, commercial businesses and some surface car parking. The Calwell Club was constructed in 2004. There is no one particular architectural style which characterises this area.
- » The community and living precinct contains a small amount of single and two-storey residences in the centre, the childcare centre, two churches and a learn-to-swim facility. The recently constructed aged care facility, Bupa Calwell aged care, is located between the commercial centre and the playing fields. There is no one particular architectural style which characterises this area.
- » The **services precinct** contains the ambulance station, which fronts onto Johnson Drive and includes some open space.
- » The recreation, community and open space **precinct** is comprised of the Calwell District Playing Fields and the netball courts. These facilities are heavily used by the broader community. Two schools are located in this precinct, but the majority of land in this precinct is outdoor recreational space.
- » The heritage precinct is located north of Johnson Drive and contains the Tuggeranong Homestead, associated buildings and surrounding landscape. The Tuggeranong Homestead and environs is listed on the ACT Heritage Register.

Map 7: Existing Character Precincts



LEGEND



3.2.2 HERITAGE

The Tuggeranong Homestead and environs is the core of a once large farming property. There are remnant elements of native woodlands and open pastures combined with historic exotic plantings. The property was the home of the Cunningham family, who also owned the historic 'Lanyon' property. The property was later the home of eminent war historian Dr Charles Edwin Woodrow Bean and his team of clerks and writers during the task of writing and recording the Official History of Australia's involvement in World War 1.

The site contains the remaining structures of the historic Tuggeranong Homestead complex. These buildings and structures provide evidence of the sequence of construction, materials and building techniques used on a rural property in the region over approximately 168 years of European history.

The heritage precinct has a long and rich Aboriginal history, extending back many thousands of years. Archaeological sites, the physical expression of this history, are found within the precinct. Known sites include culturally modified trees and stone artefacts. Further archaeological sites are expected to be found within the precinct, buried beneath the current surface and able to provide further information on the Aboriginal history of the area.

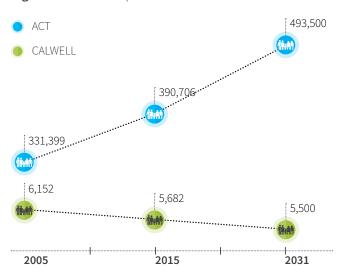
Traditional custodians maintained their connection to the Tuggeranong Homestead area following European arrival and settlement, with an early account describing an Aboriginal ceremony near the Homestead in 1827. Despite the dispossession that followed, Aboriginal people have maintained cultural connections to their traditional lands and waters, and continue to identify the Tuggeranong Homestead as a significant place. The archaeological sites within the precinct are also identified to be of cultural significance, physically linking generations of Aboriginal people over time.

The Tuggeranong Homestead heritage precinct has been managed by the ACT Government as a heritage place since 1993, with the first Conservation Management Plan prepared in 1992. A 1999 Conservation Management Plan has been guiding the more recent management of the place. The Heritage Council has approved a new

Conservation Management Plan. 'Tuggeranong Homestead and Environs Conservation Management Plan, Volume 1 and 2', April 2016, to guide the future management of the precinct.

Minders of Tuggeranong Homestead (MOTH) is a non-profit voluntary organisation formed in 1992 to protect the integrity of this historic site. Since its formation MOTH has maintained a keen presence at the homestead and has adopted a motto of 'Preserve, Restore and Enjoy' on behalf of the local and wider community. In conjunction with the lessee and other national organisations, including Greening Australia and Conservation Volunteers Australia, MOTH assists in hands-on pasture management, care of the historic orchard and remnant Yellow Box- Red Gum Grassy Woodland.

Figure 3: Calwell Population



POPULATION IN CALWELL IS ANTICIPATED TO DECLINE 3.2% BY 2031

Figure 4: Median Age

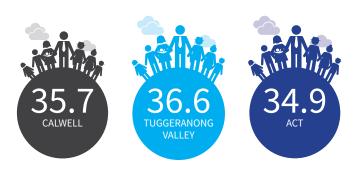


Figure 5: Calwell Employment

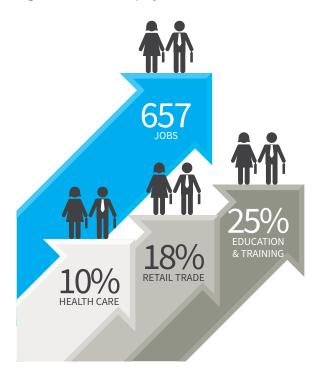
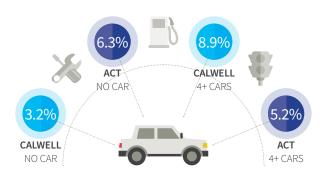


Figure 6: Calwell Employees



Figure 7: Car ownership



3.3 DEMOGRAPHICS

3.3.1 POPULATION

Growth and change in Canberra's population will generate demand for housing, offices, retailing, services, community facilities and associated infrastructure. At September 2015, the population of the ACT was estimated to be 390,706² with the population projected to reach 430,400 by 2021 and 493,500 by 2031.³

In 2015 the resident population of the suburb of Calwell was estimated to be 5682.⁴ This represents a decline of 470 residents, or 8% from the 2005 population of 6152⁵ (**Figure 3**). This decrease follows a general trend of population decline for the suburbs of south-east Tuggeranong; Calwell, Theodore, Richardson and Isabella Plains. These suburbs are known as the Calwell catchment in this plan.

The population within the Calwell catchment has fallen from 18,750 in 2001 to 16,944 in 2015⁶ and is expected to continue this gradual decline with population estimates of 16,550 by 2021 and 16,250 by 2031 for the catchment.⁷

This population decline in this catchment is primarily due to the ageing of the population. Between 2000 and 2014, there was a substantial reduction in the 0–14 year old and 25–44 year old age groups and an increase in the 15–24 year old and 50 years and older age groups (**Figure 4**).8

From 2000 to 2014, the median age of the Calwell population increased from 30 years to 35.7 years. This is slightly older than the estimated median age of the ACT population at 34.9 years, although it is younger than the median age of the Tuggeranong population at 36.6 years. The median age for the Calwell population is trending upwards suggesting the population will continue to age, driven in part by an increasing percentage of the population aged 65 years and over (**Table 1**).

The need to support an older population has implications for the provision of facilities and services and the design of the public domain, which will need to meet the needs of a diverse population and respond to issues such as mobility and access.

Map 8: Land custodianship CHISHOLM CLARTCRESCENT 2 TUGGERANONG CREET RICHARDSON TUGGERANONG HOMESTEAD JOHNSON DRIVE OUTTRIM AVENUE DOWNARD STREET 798 CALWELL DISTRICT PLAYING FIELDS CASESCENT 11 795 CALWELL 796 16 THARWA DRIVE **LEGEND** Leased Territory Land - Government Other ACT Government Agency - Not TAMS - Other Unleased Assets Public Land - Unleased Lease Leased Territory land TAMS - Public Land TAMS - Vacant (other) Private Lease - Public Land TAMS - Public Places TAMS - Roads

Table 1: Changes in percentage of population aged 65 years and over⁷

PERCENTAGE OF POPULATION AGED 65 YEARS AND OVER				
YEAR	CALWELL	ACT	AUSTRALIA	
1991	1.0%	6.2%	11.3%	
1996	1.9%	7.3%	12.0%	
2001	3.1%	8.6%	12.6%	
2006	4.2%	9.6%	13.0%	
2011	5.8%	10.6%	13.8%	
2014	7.7%	11.8%	14.7%	

332 FMPI OYMENT

The suburb of Calwell and the Calwell catchment have similar work force participation as the broader ACT, with the primary variations being a higher percentage of people employed in both the suburb of Calwell and the Calwell catchment and a lower portion of people not in the workforce than the broader ACT.¹⁰ This is predominately attributed to fewer younger people in the suburb of Calwell and the Calwell catchment when compared with the ACT.

There are approximately 657 jobs in Calwell; this includes education and training, retail trade and health care and social assistance. Of the people employed in Calwell 34% are Calwell residents (Figure 5 and 6).

34 I AND USF

3.4.1 LAND CUSTODIANSHIP

Land in the centre is leased by a mix of private leaseholders and the ACT Government (Map 8). A key function of this master plan is to provide opportunities for private leaseholders to redevelop and contribute to a better public domain. This master plan identifies where it is appropriate to sell unleased Territory-owned land and what type of land use should occur on this land. Redevelopment opportunities for leased Territory-owned land are also identified. Unleased land is managed by the ACT Government. In the centre, unleased land is mainly in the form of the surface parking and the vacant block of land adjacent the existing ambulance station on Johnson Drive.

3.4.2 COMMERCIAL AND RETAIL

The Calwell retail catchment serving the surrounding suburbs of Calwell, Theodore, Richardson and Isabella Plains has a population of approximately 16,944 residents.11

The centre currently has two commercial zones (Map 5). The commercial core, zoned as CZ1: Core Zone, is primarily occupied by the Calwell Shopping Centre, which contains a variety of commercial shops and businesses. The commercial core also includes public spaces, a playground south of the shopping centre and surface parking.

Land to the west of the commercial core is zoned as CZ3: Services Zone and includes the Calwell Club, service station and mechanic, surface parking and a Park and Ride facility. Land to the south of the commercial core contains a small amount of residential within the CZ3 zone. Land to the east of the shopping centre contains the Anglican Church, Kings Swim School and a car wash.

At May 2015, an estimated 7309 m² of commercial space at the centre included a Woolworths supermarket (1722 m²), the Calwell Club (1600 m²), a service station, medical centre, bank, butcher, takeaway, bottle shop, newsagency, bakery, cafe, restaurant, car wash, fitness centre, hairdresser, education centre and Bistro, formally the Tavern. Within the shopping centre 3% of space (144 m²) was vacant.

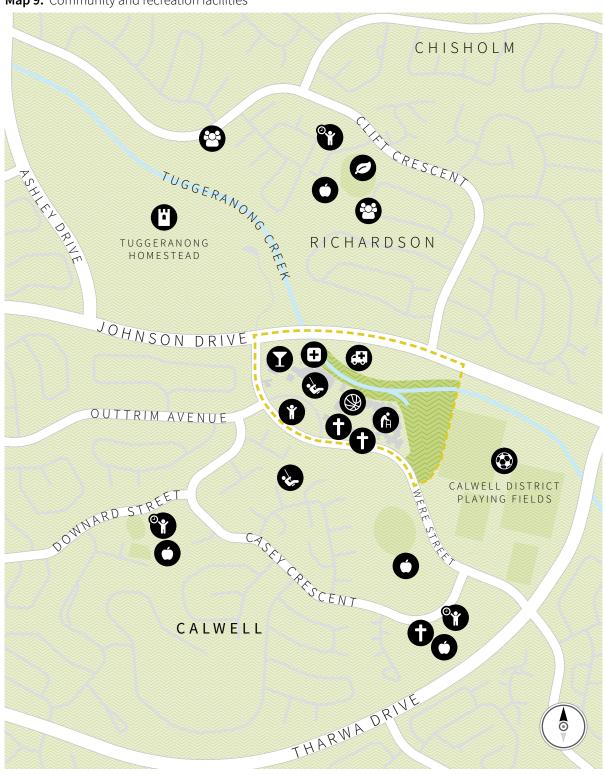
The amount of viable retail floor space in the centre is dependent on a number of variables including:

- » population growth in the centre's catchment
- » the growth in per capita retail expenditure, and
- » competition from new retail development in other centres.

3.4.3 RESIDENTIAL

Calwell contains a significantly higher proportion of detached dwellings (86%) compared to the whole of the ACT (66%), and a significantly lower proportion of semi-detached houses or townhouses (14%) compared to the ACT (34%).12

Map 9: Community and recreation facilities



LEGEND

(1) ⊕ 0 **(2)** Medical facilities Aged care Education Outdoor recreation facilities Child care Emergency services Parks Indoor recreation facilities O After school care Heritage Places of worship Community services Licensed club Playground

Within the study area there are approximately 16 townhouses on Webber Crescent within commercial CZ3 zoning. Within the area of influence around the master plan study area there is a residential area south of Were Street, comprising approximately 45 townhouses, zoned RZ2: Suburban Core Zone.

There is no land within the study area specifically zoned for residential development. However, CZ1: Core Zone and CZ3: Services Zone do allow for residential development. The centre is considered suitable for additional residential development given its proximity to public transport services. This includes Xpresso services (express bus services during the peak hours). The centre is also close to the arterial road network, providing good access to the district of Tuggeranong and the city centre. Feedback during community engagement generally supported increased housing diversity, which would cater for residents wanting to downsize and/or age in place.

3.4.4 COMMUNITY FACILITIES

The community facility zone in the study area contains the Calwell Child Care, the Alliance Church and the newly constructed Calwell Bupa aged care facility. The Anglican Church and the Kings Swim School, which also provide community uses and services are within commercial zonings.

Within the areas of influence around the study area, a number of facilities are zoned CFZ: Community Facility Zone. The facilities and grounds of Tuggeranong Homestead heritage precinct cater for the broader Canberra community. Calwell High School, St Francis of Assisi Primary School, Calwell Primary School and Sacred Heart Church provide essential services to the community (Map 9).

A community facilities study undertaken for the centre found that an increase in the demand for child care and children's services in Calwell is unlikely in the foreseeable future. However, there is a need for further activities and meeting places for young people.

The new aged care facility on Were Street, Bupa Calwell aged care, provides for a range of aged care requirements and brings both residents and their visitors to the centre. Feedback from community engagement indicated a desire to improve access for people with disabilities, reflecting the growing number of older people living in the catchment area. Sites could also be identified for medium density or alternative housing types suitable for current residents of the area wishing to downsize and age in place.

3.4.5 SPORT AND RECREATION **FACILITIES**

The Calwell District Playing Fields are zoned Parks and Recreation (PRZ1: Urban Open Space Zone). This area is heavily utilised, particularly during the weekend, and supports sporting facilities for the district including the Brindabella Blues Football Club (soccer), Calwell Little Athletics Club, South Tuggeranong Softball Association, Giants Softball Club and ACT Oztag. The fields are also used by schools in the region.

The playing fields are accessed off Were Street and have surface parking and some storage and amenities buildings. An ACT Government municipal depot is located in this area.

This PRZ1: Urban Open Space zone includes storm water easements such as the Tuggeranong Creek, which runs to the north of the shopping centre.

3.4.6 SERVICES

A small amount of land north of the group centre is zoned Transport and Services (TSZ2: Services zone). This zone allows for essential services such as emergency services. An existing ambulance station is located here and there are future plans to build an operational base for State Emergency Service (SES) volunteers adjacent to the station.



TRANSPORT AND 3.5 **MOVEMENT**

3.5.1 PUBLIC TRANSPORT

The centre is situated alongside Johnson Drive, a major arterial road connecting to the Tuggeranong town centre and the surrounding residential areas. Johnson Drive also connects to the Monaro Highway, providing opportunity for good access to the city centre and Barton and Russell.

Park and Ride facilities built in 2014 provide approximately 60 parking spaces that adjoin the bus stop to the south of Johnson Drive and Were Street. (Map 10). There is some bicycle parking adjacent to the Park and Ride facility. The location of this facility adjacent to this major arterial road at the rear of the centre creates poor passive surveillance, has limited pedestrian activity and could be perceived to be unsafe after dark. There are limited pedestrian and cycling connections from the bus stops on Johnson Drive.

Currently seven bus routes run through the Calwell group centre. The bus stops on Johnson Drive adjacent to the Park and Ride facility connect to Barton, Russell and the city centre. The bus stop on Webber Crescent supports services through residential areas connecting to the Tuggeranong and Woden town centres. An Xpresso service also operates from this bus stop at peak hour times. (Map 10)

3.5.2 LIGHT RAIL

Transport for Canberra (2012) establishes a Frequent Network of rapid public transport corridors with high frequency, all day transport services. The Frequent Network is integrated with a coverage bus network, which ensures all Canberrans have access to public transport.

Through the Transport Canberra – Light Rail Network Plan, the government is currently investigating how public transport on the rapid Frequent Network can be improved by transitioning the service from buses to light rail as the city grows. These investigations will inform future decision-making about extensions to light rail and deliver on key government policies, including Transport for Canberra and the ACT Planning Strategy.

3.5.3 ACTIVE TRAVEL

Travel that involves physical activity such as walking and cycling is referred to as active travel. Active travel can also be the walking and cycling integrated with public transport use.

Census data from 2011 indicates that relative to the rest of the ACT, Calwell has a lower proportion of households that either do not own a vehicle or have only one vehicle and a higher proportion of households that own more than three vehicles. This could be due to its location, the distance to employment centres and the larger proportion of teenagers and young adults living at home with cars (Figure 7). The Census data shows that approximately 90% of Calwell residents travel to work as either car drivers or passengers.

Background analysis undertaken for this master plan indicated a low ratio of residents who walk or cycle to the centre. This may be due to the suitability of the pedestrian and cycle network and the high dependency on cars for private transport.

To encourage more pedestrians and cyclists, future pedestrian and cycling infrastructure must improve upon the existing network by better linking the adjoining residential areas, facilities and schools to the centre.

PEDESTRIANS AND CYCLISTS

Access to the centre is difficult and sometimes unpleasant for pedestrians and cyclists (Map 11). Significant barriers were identified through the engagement process and through background studies including:

- » Tuggeranong Creek, a concrete channel, has only one pedestrian/cycle bridge linking to the main shared use path north of Johnson Drive.
- » Dirt tracks at the western end of the centre indicate where people informally cross the stormwater drain. This could be unsafe, particularly when it is raining.
- » Johnson Drive is currently too narrow for on-road cycling and is difficult for pedestrians to cross safely, particularly at the Park and Ride bus stops and the connection to Clift Crescent for Richardson residents. Community feedback has also identified concerns for the speed of traffic on this road.

Map 11: Existing pedestrian and cycle network RICHARDSON TUGGERANONG HOMESTEAD TUGGERANONG CREEK RESTREET! CALWELL DISTRICT PLAYING FIELDS CALWELL



- » The roundabout on Were Street and Outtrim Avenue/Webber Crescent provides limited opportunities for pedestrians to cross at safe points.
- » The pedestrian underpass to the east of the centre provides access under Were Street linking urban open space corridors with residential areas and the schools. The underpass is useful and well utilised. However, it is not always accessible after heavy rain as it can flood.
- » There is no formal connection to the Calwell District Playing Fields; however dirt tracks are present along Were Street and behind the shopping centre.
- » Well-worn dirt tracks exist along the stormwater drain to the east behind the playing fields.

Within the centre, access is fragmented and unsafe for both pedestrians and cyclists. An accessibility assessment undertaken for this master plan shows significant barriers for access:

- » The large surface car parks that surround the shopping centre and other facilities lack legible, safe access for pedestrians.
- » There is conflict between pedestrians and vehicles in a number of areas.
- » There is one pedestrian crossing near the entry to the Calwell shopping centre, which connects to the bus stop on Webber Crescent.
- » The pedestrian paths generally have missing connections and some of the paths next to key roads are quite narrow.
- » Kerb ramps have excessive gradients with inadequate landings. This creates problems for people with a disability, prams, shopping trolleys and safety for small children.
- » The area adjacent to the service station exit conflicts with the entry to the centre from Were Street. There is also limited pedestrian and cyclist access in this area.
- » There is limited bicycle parking at the bus stops and at the western entry to the shopping centre. There is no bicycle parking at the eastern side of the shopping centre.

3.5.4 ROAD NETWORK AND TRAFFIC

The centre is adjacent to major arterial road networks including Johnson Drive and the Monaro Highway, making it convenient to drive to by private car.

The Calwell Shopping Centre is surrounded by car parking aisles, which lack legibility and can create conflict between pedestrians and vehicles.

Feedback from community engagement and background studies found a need to improve traffic management within the centre including Webber Crescent and Were Street and some of the parking aisles. This could be achieved by slowing the traffic speed through traffic calming infrastructure and improving lines of sight so it is safer for pedestrians and cyclists to cross these roads.

3.5.5 CAR PARKING

A car parking study prepared for the centre in June 2015 found there is considerable parking capacity in the centre. Of the 507 parking spaces, 344 are public parking spaces. The Park and Ride facility has an additional 60 parking spaces. (Map 12)

Table 2 outlines the parking capacity across the centre.

The key findings of the surveys for public parking demand include:

- » Parking demand on a weekday across the public parking places was at 57.5% capacity.
 - » The peak car parking utilisation for a typical weekday occurred between 1-4pm.
 - » Demand concentrated in the front of the shopping centre peaked at 85%.
 - » Rear parking adjacent to the Park and Ride was between 30-50% capacity.
- » Parking demand for the weekend across the public parking places was at 44.3% capacity as shown in Figure 8.
 - » The peak parking utilisation for a typical weekend occurs between 1-4pm.
 - » Parking adjacent to the Park and Ride was less than 15% capacity.

Map 12: Existing parking

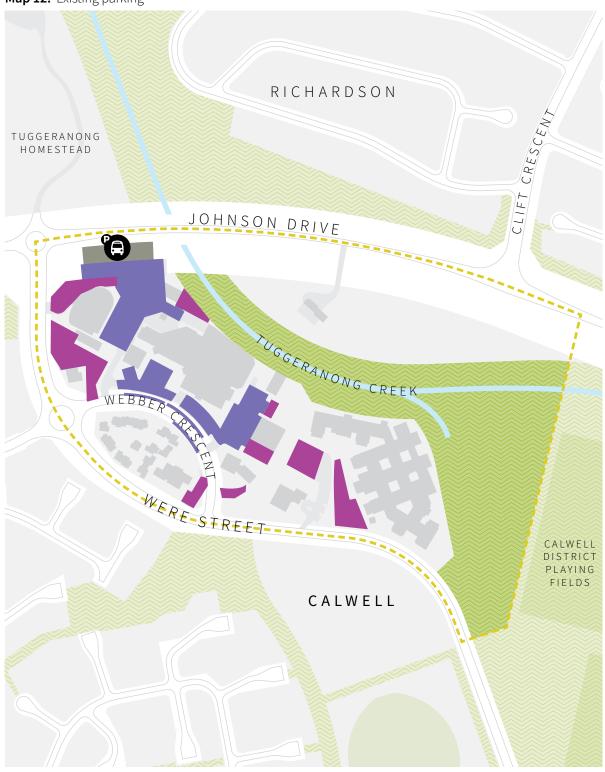




Figure 8: Car parking utilisation in the Calwell group centre Diagram from the Transport Movement and Car Parking Study









WEEKDAY EVENING 5PM TO 7PM

- » Most of the parking is not used during the evening with the exception of the Calwell Club parking and the Kings Swim School.
- » The car parking surveys indicate there is high demand for short-stay parking adjacent to the shopping centre. However, there is adequate parking capacity in the centre.
- » To encourage use of the underutilised carparks at the periphery of the centre, improvements could be made for safe, pedestrian routes that are easy to navigate from these carparks to destinations including the shopping centre.
- » There are 16 accessible parking spaces for people with a disability across the centre which meets the required 3% of the total provision.

- However some of this accessible parking is within private parking areas.
- » The major public parking areas immediately around the shopping centre have 260 parking spaces and 7 accessible spaces, which is less than the 3% minimum required.
- » The Park and Ride, which has 58 parking places and two accessible parking spaces, is well under capacity, ranging from 8% to 18% capacity on weekdays.
- » This may be due to a lack of demand for public transport and the high dependence on private car use in the area. There is also poor pedestrian accessibility and safety for users across Johnson Drive and Were Street to the bus stops.

Table 2: Car parking capacity in the centre

		RESTRICTION	TOTAL	PROPORTION
ON-STREET	PUBLIC	No parking	0	0%
		Restricted	1	0%
		Timed	0	0%
		Unrestricted	9	2%
		Total	10	2%
OFF-STREET	PUBLIC	No car parking	0	0%
		Restricted	24	5%
		Off-Street	163	32%
		Unrestricted	147	29%
		Total	334	66%
	PRIVATE	Restricted	14	3%
		Unrestricted	149	29%
			163	32%
Tota	al		507	

3.6 PUBLIC DOMAIN

3.6.1 STREETS AND **PUBLIC SPACES**

The public domain in the Calwell group centre is limited, with few places to meet and socialise. Challenges identified for the centre's public spaces include:

MEETING PLACES AND PLAYGROUNDS

- » The area south of the main shopping centre entry contains some seating and a playground.
- » There are limited safe connections to the central public space from the surrounding parking.
- » The playground has limited play equipment for young children and is not age appropriate (i.e. does not meet the needs for a range of ages).
- » There are few places for people to sit and watch their children play.
- » The playground has no shade or trees and the surrounding public area has limited shade.
- » The playground has poor amenity, backs onto the central car park and is in the vicinity of the Calwell Bistro (formally the Tavern). This was raised as a concern by the community and students during the first stage of engagement.

- » There is little opportunity for passive surveillance to this area as there are little or no active frontages facing onto the playground.
- » Other playgrounds outside the study area have more play equipment, including the playground to the south of Were Street in the urban open space corridor. However, this playground also lacks passive surveillance.

ACTIVE FRONTAGE

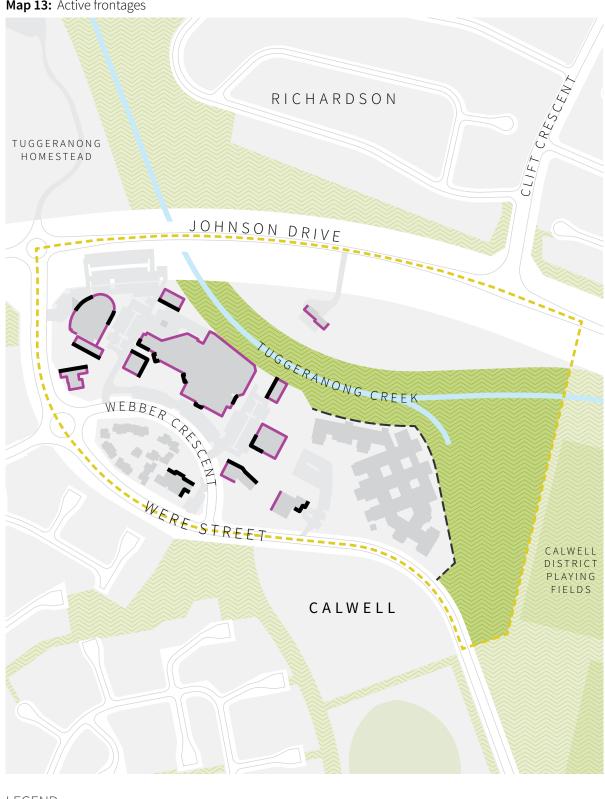
The public spaces in the centre have limited activity due in part to the layout of the centre, with large surface carparks surrounding the shopping centre, and the internal nature of the shopping centre. This lack of activity is due to several factors:

- » The shopping centre is designed with some glass windows and doors fronting the public space, but these have generally been covered by advertising and the like.
- » Areas with no passive surveillance can feel unsafe at night.
- » The public spaces lack active uses, such as cafés, which can activate the public domain. This would contribute to making the centre an area to meet and socialise. (Map 13)
- » The shopping centre has four entries. The western access comprises as an exit only from the health facility. This leaves the western and northern sides of the centre with little activity. The northern side contains loading dock areas and access to the back of tenancies.
- » The Calwell Club fronts onto Johnson Drive with few active areas facing the shopping centre.

3.6.2 GREEN SPACES

Shade from trees and vegetation creates amenity for people to stay longer in the centre. There is little landscape space in the commercial part of the centre in the form of grass for children to play on, or shaded areas to provide respite from heat. There is a lack of trees with sufficient canopy to provide shade. Although there is some shade around the perimeter of the shopping centre there are large areas exposed to the elements. (Map 14) Awnings around the shopping centre provide limited shelter.

Map 13: Active frontages



Active frontage Poor passive surveillance

Inactive frontage

Although the commercial part of the centre is very urban with little tree cover, the centre is adjacent to the urban open space network along Tuggeranong Creek (Map 15). The tree cover within this open space network provides opportunity for wildlife corridors. The Calwell District Playing Fields to the east of the centre provide significant outdoor recreation space. The Tuggeranong Homestead is set within a green landscaped setting in the heritage precinct to the north of Johnson Drive. There is the potential to improve links from these areas to the centre.

37 **BUILDING DESIGN** AND HEIGHT

The Calwell Shopping Centre and the Bistro, formally the Tavern, were built in the mid 1990s and have a distinct look and feel typical of some architecture of that era. The buildings have bull nose awnings around the perimeter. The main shopping centre has a transparent roof that provides daylight into the main internal pedestrian spaces inside. The Calwell Club was built in 2004.

Buildings throughout the centre are generally one to two storeys, consistent with the existing Territory Plan provisions. There is some two-storey town house residential development in the centre on Were Street (Map 16).

Although some buildings are only single storey they have a bulk and scale considerably larger than most single storey buildings. This includes the Calwell Shopping Centre, The Calwell Club and the Bupa Calwell aged care facility.

"ALTHOUGH SOME PREMISES OPEN LATE THERE ARE SOME UNSAFE SPACES AROUND THESE FACILITIES WITH NO PASSIVE SURVEILLANCE."

3.8 PUBLIC SAFETY

One of the main concerns raised during community consultation was that people can feel unsafe in the centre. This was not only restricted to the evening. When crime statistics were compared to other group centres in Canberra, Calwell did not have a higher amount of reportable incidents. However, the feeling of being unsafe in the centre is still significant. As part of a community safety assessment undertaken in 2015 to inform the draft master plan, four visits were made to the centre both during the day and after sunset.

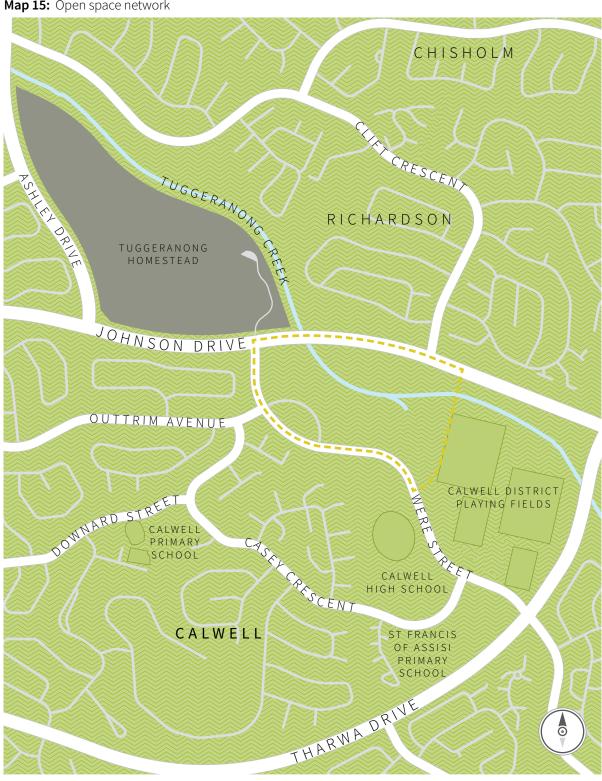
The safety assessment found key safety issues:

- » major barriers restrict safe pedestrian and cycle access to the centre i.e. Johnson Drive, Were Street and the concrete storm water drain (Tuggeranong Creek)
- » although some premises open late (including the Woolworths supermarket, the 24 hour service station, the Calwell Club and the Calwell Bistro, formally the Tavern) there are some unsafe spaces around these facilities with no passive surveillance
- » blank walls, hidden corners and vacant tenancies reduce the feeling of safety.
- » lack of activity and active frontages facing onto public places and main pedestrian routes make people feel vulnerable
- » the Calwell District Playing Fields have open spaces without passive surveillance
- » pedestrian access and connectivity to adjoining residential areas such as Calwell (Were Street, Webber Street) and Richardson (Johnson Drive) is unsafe.
- » underpasses with overgrown shrubs prevent light spill and visibility
- » public transport facilities on Johnson Drive have no nearby land uses to provide passive surveillance and are difficult for pedestrian and cyclists to access, and
- » access to external toilets is only during the hours of operation of the centre.

These safety issues discourage pedestrian and cyclist movement to and through the centre, particularly at night when activity is limited.

Map 14: Land use and landscape RICHARDSON JOHNSON DRIVE WEBBERCR WÉRE STRÉET PLAYING FIELDS CALWELL LEGEND Tuggeranong Creek Existing stands of trees View to Tuggeranong Homestead Existing open space Ovals

Map 15: Open space network



Parks and public open spaces

Ovals

Tuggeranong Homestead

3.9 WATER QUALITY

3.9.1 ACT HEALTHY WATERWAYS **BASIN PROJECT**

The ACT Government has secured \$85 million of Australian Government funding, supplemented by \$8.5 million ACT Government funding, to significantly improve water quality in our lakes and rivers and downstream in the Murray-Darling Basin.

Eight water quality improvement projects are proposed (with a capital value of \$27 million) for Tuggeranong in the suburbs of Monash, Fadden, Kambah, Isabella Plains, Chisholm and Wanniassa. These include a wetland, rain gardens (bio-retention systems), ponds, and swales. These improvements will reduce the level of sediment, nutrients and other pollutants entering Lake Tuggeranong, as well as downstream into the Murrumbidgee River. Long-term improvements will apply to environmental condition, urban landscapes, liveability, amenity and recreational opportunities. Detailed designs and costings are being prepared for each project and development approval gained, with construction of the first projects expected to begin in 2017.

A three year in-lake water quality research project proposed for Lake Tuggeranong will improve understanding of in-lake treatment options, and include a trial of sediment curtains and bubblers.

Any future options to improve water quality within the heritage precinct would need to consider Aboriginal and European heritage, including possible unidentified archaeological sites, and be approved by the Heritage Council and have agreement from the ACT Government custodian.

3.9.2 FLOODING -TUGGERANONG CREEK

Areas close to the Tuggeranong Creek (stormwater channel), including development, have the potential to be impacted by flooding.

Planning for areas close to the creek line will ensure no buildings are built below the 1 in 100 year flood line or 1% annual exceedance probability (1% AEP) flood. Because floods greater than 1%

AEP can occur, an additional 500 millimetres is recommended to be added to the 1% AEP level for residential development.

Predicted flood levels can change from time to time due to changes in development areas within catchments and as climate change data and modelling is improved.

3.10 ENVIRONMENTAL SUSTAINABILITY

Sustainability is critical to the landscaped and built environment. ACT Government policies and strategies provide guidance for integrating sustainability measures into our urban environment, including the new Climate Change Adaptation Strategy.

The following key environmental sustainability principles are considered in master plans and their implementation.

3.10.1 CLIMATE CHANGE

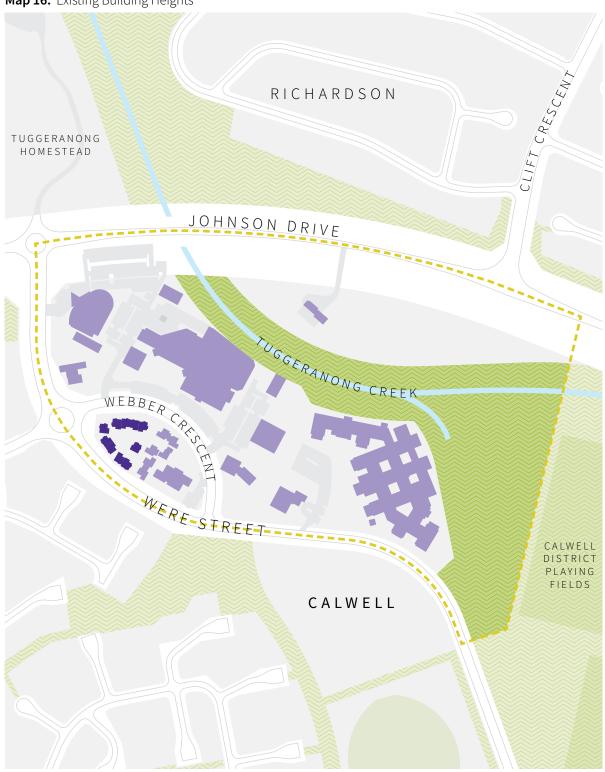
Responding to climate change takes two forms:

- » Mitigation –reducing greenhouse gas emissions by minimising use of fossil fuels for heating, cooling and vehicular transport, and increasing the efficiency of energy use.
- » Adaptation –taking action to be resilient to the risk of a changing climate.

3.10.2 RESOURCES CONSUMPTION

- » Reduce the amount of land used for the growing city through urban renewal and intensification.
- » Reduce the amount of energy and water used in urban environments and invest in living (green) infrastructure.
- » Respect and conserve natural and cultural heritage.
- » Respect and conserve the significant landscapes and its features.
- » Enhance biodiversity with habitat connectivity.

Map 16: Existing Building Heights



2 Storey 1 Storey

3.10.3 BUILDINGS

- » Improve the design and construction of buildings.
- » Increase choice in housing to meet diverse needs.

3.10.4 URBAN PLANNING AND DESIGN

- » Reduce reliance on private vehicles.
- Create opportunities for social interactions.
- » Integrate passive solar design principles into building and site design.
- » Reduce the heat island effect in urban areas and improve microclimate through WSUD such as landscape design.

Master plans provide opportunities to address climate change adaptation at a place-specific scale.

The projections for the ACT and region are for an increasingly hotter and drier climate with more extreme weather events. The place-based risks to people and assets from a hotter and drier climate are heat, severe storms (flash flooding) and bushfire.

Options to address these risks may include:

» Reduce city heat and increase amenity in outdoor spaces for healthy living

- » Increase shade trees to roadways and car parks.
- » Use light coloured pavements.
- » Increase shade to pathways and parklands for human comfort and wellbeing.
- » Include seats and drinking fountains with water bottle recharge taps.
- » Increase use of vegetation and passive watering to cool the environment.

» Reduce city heat and achieve cooler buildings

- » Design buildings, streets and parks to be 'climate wise'. This means improving the design and choice of materials for the built environment that can lessen the effects of climate change.
- » Use solar passive design.
- » Use light coloured materials.
- » Introduce green infrastructure such as green roofs and walls.

» Flooding

- » Reduce run-off from impermeable surfaces within the sub-catchment.
- » Capture and use rainwater/stormwater in redevelopment projects through roadside water sensitive urban design kerb and gutter systems.

» Reduce the risk of bushfire in urban areas

- » Initiate an asset protection zone.
- » Ensure no continuity of fuel from the ground to the crown of the tree.
- » Plan for emergency service access.

The following opportunities were identified to incorporate environmental sustainability measures in the master plan.

3.10.5 ENERGY

The ACT Sustainable Energy Policy 2011–2020 stated objectives are to achieve reliable and affordable energy, smarter use of energy, cleaner energy and growth in the clean economy.

A district energy system could contribute to achieving these objectives and could be commercially viable with a commercial/residential development or expansion. District energy systems produce electrical energy locally and use 'waste heat' from electricity generation to heat and cool buildings.

Electricity and/or thermal energy is generated close to where it is used. Energy systems such as co-generation (electricity and heat) or trigeneration (electricity, heat and cooling) need the combination of commercial and residential uses to be efficient as the load for commercial is during the day and the load for residential is generally out of hours. The use of such energy systems can achieve social, economic and environmental benefits.

New commercial and residential development and/or redevelopment in the centre has the potential to incorporate such sustainable initiatives to improve centre's sustainability.



3.10.6 WATER

Water is an important natural resource that is under significant pressure from population growth and climatic conditions. There is also a need to reduce broader social, economic and environmental costs associated with potable water distribution.

During the Millenium Drought, the irrigation for a number of playing fields in the ACT was switched off due to water restrictions to conserve potable water.

The potable water consumption for domestic or commercial use could be minimised if other solutions were investigated such as the use of storm water and rainwater.

"LARGE CANOPY TREES...PROVIDE SHADE IN THE WARMER MONTHS AND COOLING THROUGH TRANSPIRATION."

3.10.7 HEAT ISLAND EFFECT

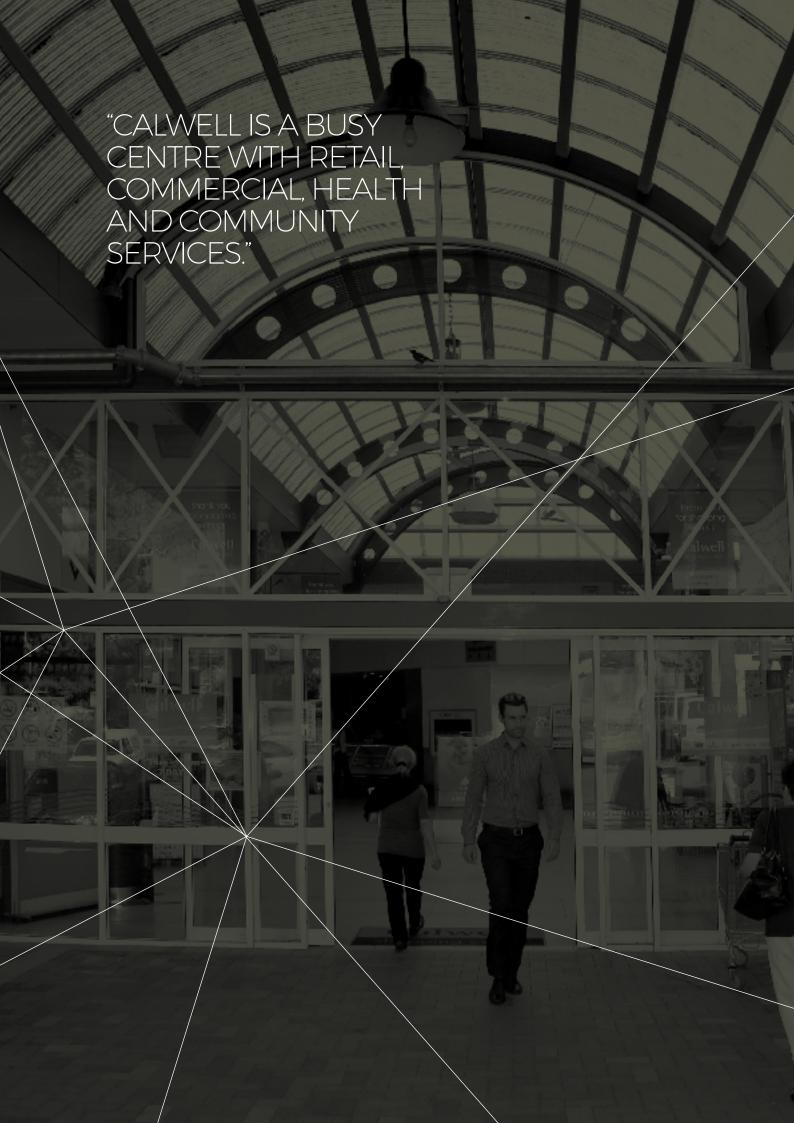
An urban heat island is a metropolitan area which is significantly warmer than its surrounding areas. The main cause of the heat island effect is from the use of materials which store and radiate heat in to the surrounding areas such as concrete and bitumen.

Thermal comfort can significantly change the way we use outdoor areas. Urban environments, such as the Calwell group centre, contain significant areas of concrete and asphalt in the roads and footpaths. Higher temperatures may be acceptable in the cooler months, but some urban environments can become uncomfortable in summer.

The built environment can be designed to reduce the urban heat island effect with the use of lighter building materials, shade structures and permeable surfaces. Large canopy trees can provide shade in the warmer months and cooling through transpiration.

4. CHALLENGES AND OPPORTUNITIES

Calwell Group Centre Master Plan



4. CHALLENGES AND **OPPORTUNITIES**

THE MAIN CHALLENGES AND OPPORTUNITIES IDENTIFIED FOR THE CENTRE ARE OUTLINED BELOW AND ILLUSTRATED IN MAPS 17 AND 18. THIS LIST IS NOT EXHAUSTIVE, BUT PROVIDES A BASIS FOR THE DEVELOPMENT OF THE MASTER PLAN.

41 **CHALLENGES**

4.1.1 POOR PEDESTRIAN AND CYCLIST CONNECTIONS WITHIN THE CENTRE AND TO SURROUNDING AREAS

The pedestrian and cyclist connections in the centre and to surrounding areas are constrained by a number of factors, including:

- » limited and often unsafe access for both pedestrian and cyclists across the main roads surrounding the centre
- » limited pedestrian and cycling access from the Park and Ride on Johnson Drive to the bus stops
- » a lack of safe pedestrian access which is easy to navigate through the surface parking that surrounds the main shopping centre
- » parking areas that dominate the pedestrian and cycling experience in the centre and create unpleasant public places and narrow walkways, and
- » the stormwater drain (Tuggeranong Creek), creates a barrier for pedestrians and cyclists and has limited crossings.

"THE CENTRE HAS LITTLE OPPORTUNITY DCIALISE OUTSIDE IN THE PUBLIC AREA"

4.1.2 LACK OF MEETING PLACES AND POOR QUALITY **PUBLIC DOMAIN**

The centre has little opportunity for people to meet and socialise outside in public areas because of:

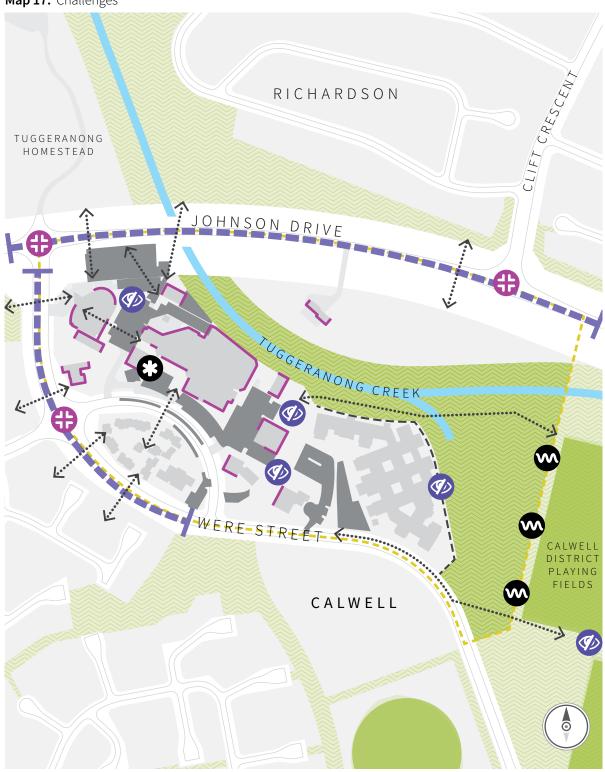
- » poor quality public domain and amenity
- » limited playground facilities with no shade
- » lack of places for young people to meet
- » lack of active frontages in the centre that could add to social activity and passive surveillance
- » limited pedestrian connections to the central plaza area and playground, and
- » limited tree cover and landscaping in the centre to provide shade and amenity.

4.1.3 SAFETY IN THE CENTRE DAY AND NIGHT

Community engagement raised concerns about safety in the centre. As outlined in Section 3.8, a safety assessment undertaken in the public areas identified safety issues associated with:

- » limited after-hours activity in the centre other than the clubs and service station to the west of the centre
- » venues that serve alcohol possibly being associated with undesirable social behaviour in public areas
- » few residences in the centre, with little passive surveillance
- » lack of active frontages in the centre, with little passive surveillance
- » limited lighting in some areas in the centre, and
- poorly lit underpasses with overgrown vegetation.

Map 17: Challenges







4.1.4 LIMITED RETAIL **CATCHMENT AREA**

The high number of group centres in the Tuggeranong district creates smaller retail catchment areas for some centres. The size of the Calwell catchment is relatively small to some other group centres in Canberra.

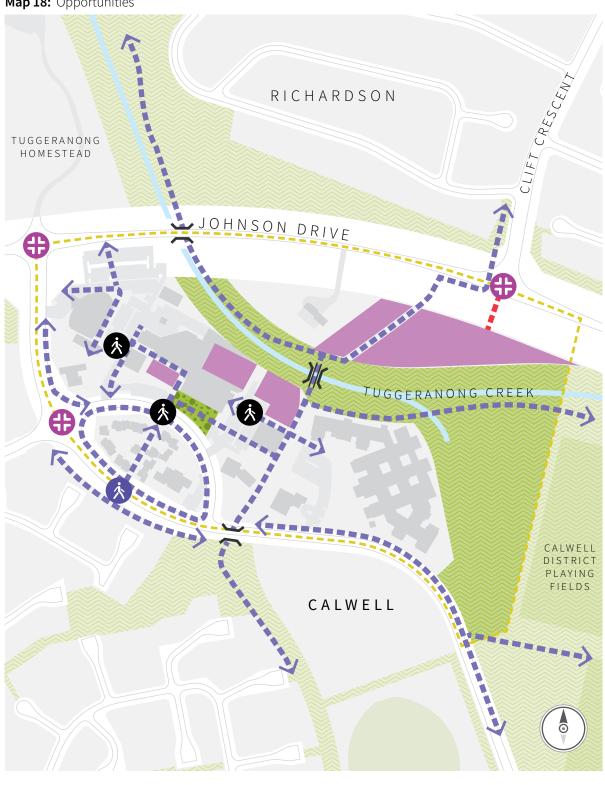
The numbers of people who use the Calwell group centre and competition from other centres could limit future retail growth in the centre.

4.1.5 AN AGEING POPULATION

Calwell and the Tuggeranong district have an ageing population. In 2014 the median age of Calwell residents was 35.7 years, which is slightly older than the median age of the ACT.⁷ The population of Calwell and Tuggeranong is projected to decline, mainly due to the ageing of the population, which is part of the demographic cycle of the district.

It will be necessary to provide for both an ageing population and also for younger people in the district. The centre currently does not provide opportunity for all ages to meet and socialise. There is insufficient infrastructure suitable for those with mobility issues and few opportunities for people to downsize and 'age in place' in their suburb.

Map 18: Opportunities





4.2 **OPPORTUNITIES**

4.2.1 ESTABLISH CALWELL AS A **COMMUNITY HUB**

Calwell is a busy centre with retail, commercial, health and community services. Opportunities for Calwell to operate as a community hub include:

- » improving pedestrian and cyclist connections
- » creating activity and active frontages adjacent to public places
- » minimising the impact of car parking and traffic
- » planning for places the community can meet outside licensed premises
- » encouraging mixed uses in the centre
- » planning for additional areas for community or recreation use adjacent to Johnson Drive on part Block 8 Section 788 Calwell, and
- » continue to promote Calwell's attractions including the Calwell District Playing Fields and the Tuggeranong Homestead.

4.2.2 IMPROVE PEDESTRIAN AND CYCLIST CONNECTIONS

The pedestrian and cycle connections to and within the centre are not always safe or easy to navigate. Opportunities to improve pedestrian and cycle connections to and within the centre include:

- » reinforcing and connecting safe pedestrian and cycle routes to the centre thereby building on the existing shared path network
- » planning for safe, legible pedestrian connections through the surface carparks
- » encouraging activity and active frontages alongside main pedestrian links and public places to provide passive surveillance, and
- » encouraging new development or redevelopment to connect entries to the main pedestrian links.

"THE ACT PLANNING STRATEGY SUPPORTS THE ESIDENTIA EVELOPMENT INTO CANBERRA'S OMMERCIAL CENTRES..."

4.2.3 IMPROVE THE CENTRE'S ACCESS AND CONVENIENCE

The centre is highly accessible by car from adjacent main arterial roads. The adequate surface parking in the centre provides for convenient shopping. The centre should retain accessibility by car while creating opportunities for active travel incorporating public transport. Access to the centre could be improved through:

- » maintaining a balance of short, medium and long-term car parking in the centre
- » retaining short-term car parking adjacent to the centre including parking for people with a disability
- » ensuring intersections that cater for vehicular traffic are efficient and incorporate pedestrian crossings
- » improving opportunities for active travel by reinforcing links to bus stops from surrounding areas and the main shopping centre, and
- » ensuring sufficient bicycle parking is located near bus stops, the centre and community areas.

"THE CENTRE SHOULD RETAIN ACCESSIBILITY BY CAR WHILE CREATING OPPORTUNITIES FOR ACTIVE TRAVEL INCORPORATING PUBLIC TRANSPORT."

4.2.4 PROVIDE FOR PUBLIC PLACES ADJACENT TO **ACTIVE AREAS**

Public places for people to meet and play need to be located close to active areas in order to be welcoming, interesting places for people to socialise. The centre's public spaces could be improved by:

- » providing public meeting places close to active frontages to allow for activity that spills out into these spaces, such as cafés and restaurants
- » providing opportunity for uses that generate activity adjacent to playground areas and provide passive surveillance
- » incorporating trees that provide welcome shade in summer and improve the microclimate of the area, and
- » creating landscaped areas that create pleasant places to meet and socialise.

4.2.5 ENCOURAGE ADDITIONAL RESIDENTIAL **DEVELOPMENT IN THE CENTRE**

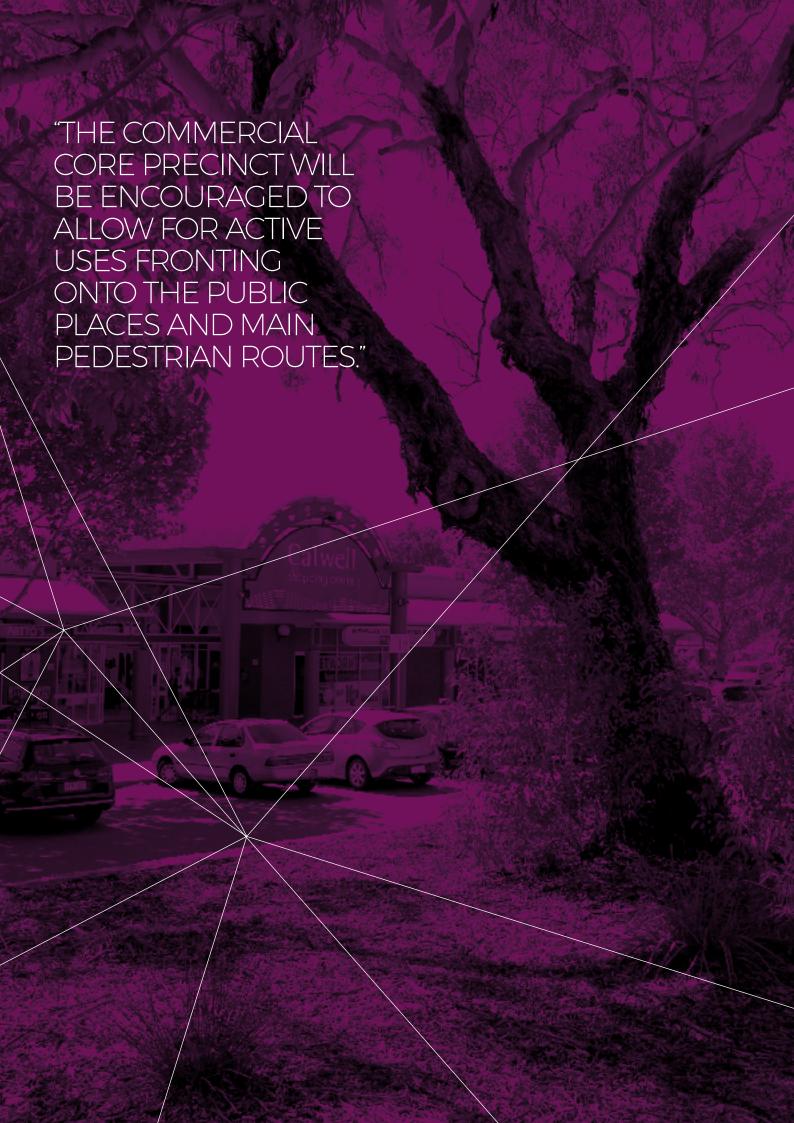
As our households change or downsize, there is a need for a diversity of housing choice. The centre currently has a small amount of residential development, which is located south of Webber Crescent.

The ACT Planning Strategy supports the introduction of residential development into Canberra's commercial centres to encourage activity in the evenings, provide new commercial opportunities and housing choice, and improve the city's sustainability.

There are opportunities to integrate residential development into the centre. The existing car wash site (Block 41 Section 787 Calwell) could be redeveloped in the future to allow commercial and residential development with active uses at ground floor. The car wash could be relocated to the commercial services area to the west of the centre. Allowing building heights in this area up to four storeys could provide for additional housing choice and create activity in the centre.

5. THE MASTER PLAN

Calwell Group Centre Master Plan



5. THE MASTER PLAN

51 MASTER PLAN STRUCTURE

The master plan structure indicates how the planning strategies and policies support achievement of the vision and principles (Figure 9). Figures 10, 11, 12 indicate some of the key master plan assumptions that were used to develop the principles and planning strategies.

5.2 **VISION**

The vision for the Calwell group centre has been developed with feedback from the community. It captures what is valued about the centre and sets out what the centre could be in the future.

CALWELL GROUP CENTRE WILL BE AN ATTRACTIVE. ACCESSIBLE, CONVENIENT CENTRE PROVIDING RESIDENTS OF SOUTH-EAST TUGGERANONG WITH A RANGE OF GOODS AND SERVICES AND OPPORTUNITIES TO SOCIALISE AND PARTICIPATE IN COMMUNITY LIFE.

CHARACTER STATEMENT 5.3

The Calwell group centre is a busy centre located in the Tuggeranong Valley. It provides a diversity of services to its catchment, including access to shopping, employment, entertainment, recreation and public transport. It is well located close to the arterial road network including the Monaro Highway. The centre has a commercial area with adjacent community, services and recreational uses. To allow the centre to evolve as the community's needs and demands change, there is opportunity to make distinct areas or precincts and connect different character precincts within the centre. The proposed five precincts are based on the types of uses, the character, built form landscape and connections that should be promoted in each precinct (Map 19).

The **commercial core precinct** will be encouraged to allow for active frontages onto the public places and main pedestrian routes. Areas east of the centre will provide alternative housing options such as residential apartments. The commercial core precinct will provide attractive and usable public spaces for a diverse range of the community including older and younger people. It is recommended that pedestrian areas and places be investigated for potential public domain improvements.

Figure 9: Master plan structure

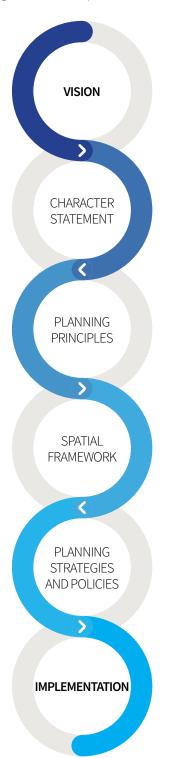


Figure 10: Population



Figure 11: Environment

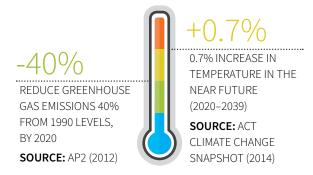


Figure 12: Dwellings



NEW DWELLINGS PROPOSED IN THE CENTRE IN THE NEXT 20+ YEARS The **commercial services precinct** will continue to allow for a range of commercial and service uses. This area will provide improved and direct connections between the Park and Ride facilities and the commercial core precinct.

The **community and living precinct** will continue to include the existing residential development in the centre and community uses. Some of these uses will continue to be located within commercial land use zoning. The community and indoor recreation uses provide services for the broader community.

The recreation, community and open space **precinct** will continue to provide valuable sport and recreation facilities, such as the Calwell District Playing Fields, netball courts and associated infrastructure. It will continue to provide essential education facilities.

The **heritage precinct** will be retained in its existing form and function. Connections between the heritage precinct and the Calwell group centre will be improved. It will also provide opportunities to promote awareness of this facility in the local and wider community.

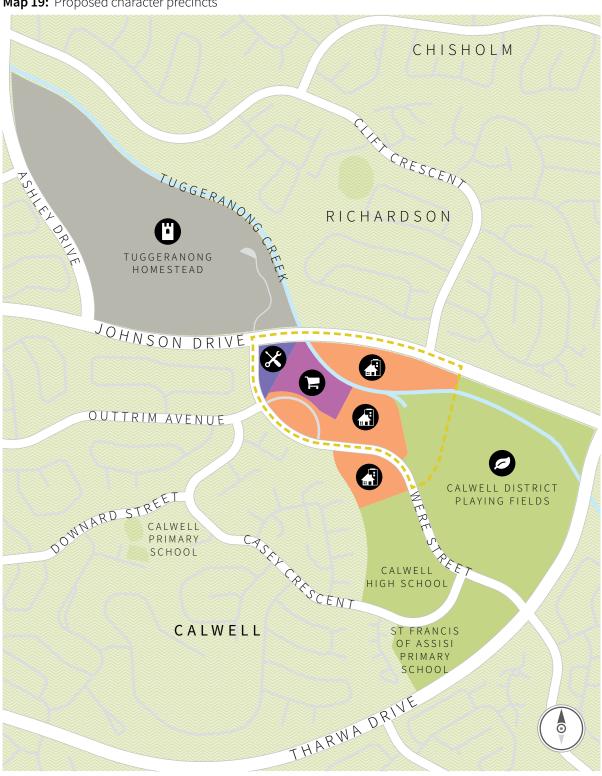
PLANNING PRINCIPLES 5.4

The following planning principles are applied to guide the implementation of this master plan, its vision and strategies. The principles reflect the future desired outcomes for the centre. Table 3 shows how the planning principles are supported by the planning strategies. Figures 10, 11, 12 indicate some of the key master plan assumptions that were used to develop the principles and planning strategies.

5.4.1 REINFORCE THE CHARACTER PRECINCTS

To allow the centre to evolve as the community's needs and demands change, create different character precincts within the centre as distinct areas or precincts that are easy to navigate and connect with the rest of the centre, as illustrated in Map 19 and described in section 5.3.

Map 19: Proposed character precincts



0 0 Commercial core precinct Recreation, community, and open space precinct 0 Heritage precinct Commercial services precinct Community and living precinct

5.4.2 ENSURE THE CENTRE IS ACCESSIBLE AND WELL CONNECTED

Ensure the centre is easy to get to by foot, bicycle, public transport and car from surrounding suburbs and destinations around the centre. Safe, legible and well connected pathways can make the centre accessible for all, including the vulnerable in the community. Better connections from neighbouring areas and the Park and Ride facility can encourage people to participate in active travel. The centre can retain its convenience with continued access to car parking.

5.4.3 ENHANCE THE CENTRE AS AN ACTIVE HUB FOR THE **COMMUNITY**

Create an environment that allows people to meet and socialise, enhancing the centre as a community hub and a destination. Encourage a high quality public domain with future development and redevelopment that contributes positively to the streets and places in the centre. Allow for play spaces next to active uses and active frontages, creating opportunities for people of all ages to socialise.

5.4.4 ENCOURAGE ACTIVITY IN THE CENTRE BOTH DAY AND NIGHT

Encourage future development and redevelopment to allow for activities to spill out onto the public areas. Encourage active uses and active frontages on main pedestrian routes and public meeting places to enhance safety in the centre. Allow for mixed-use areas in the centre and the opportunity for a diversity of housing options that add to the activity and safety in the centre, day and night.

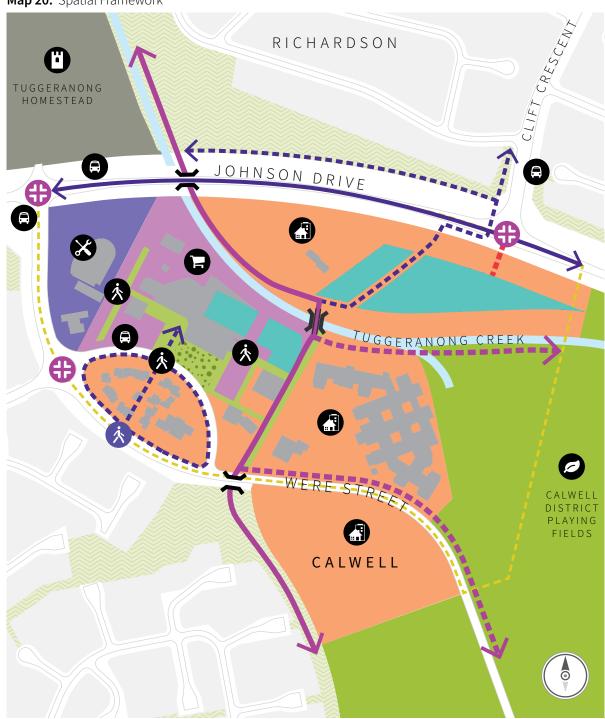
5.4.5 ENABLE AN **ENVIRONMENTALLY RESPONSIBLE AND** RESILIENT CENTRE

Allow for landscaping and tree cover within the centre to provide shade to public areas and improve the centre's microclimate, reducing the potential for heat island effect. Encourage sustainable development and redevelopment at a human scale that allows for solar access to public meeting places and utilises water sensitive urban design. Continue to protect and enhance the heritage precinct of Tuggeranong Homestead.

Table 3: Planning Principles

PLANNING PRINCIPLES	Р	LANNING STRATEGIES THAT SUPPORT THE PLANNING PRINCIPLES
Reinforce character precincts		Create distinct areas and functions in the centre
Ensure the centre is accessible and well connected		Provide safe, connections which are easy to navigate to and within the centre for pedestrians and cyclists and the most vulnerable in the community, and
		Provide a well-connected and convenient centre for vehicle access and parking.
Enhance the centre as an active	»	Enhance and activate the public domain
hub for the community	»	Provide safe, connections which are easy to navigate to and within the centre for pedestrians and cyclists and the most vulnerable in the community
		Provide a well-connected and convenient centre for vehicle access and car parking, and
		Improve the centre's sustainability through the design of buildings and the public domain and the surrounding environment.
Encourage activity in the centre	»	Enhance and activate the public domain, and
both day and night	»	Create distinct areas and functions in the centre.
Enable an environmentally responsible and resilient centre		Improve the centre's sustainability through the design of buildings and the public domain and the surrounding environment.

Map 20: Spatial Framework



Existing underpass



5.5 SPATIAL FRAMEWORK

The spatial framework (Map 20) sets out how the broad structure of the centre could be arranged in the long term. The spatial framework shows how land use, public domain and connections could be arranged and delivered.

The spatial framework recognises the challenges in the centre and brings together the opportunities, vision and planning principles to illustrate how the Calwell group centre could change over the lifetime of this master plan.

PLANNING STRATEGIES 5.6

These planning strategies are informed by the vision and planning principles in the previous section. They provide direction and guidance for the future development of the centre over the long term, considering the broad range of issues identified in the background and analysis (Table 3).

The planning strategies identify opportunities for private sector investment and will be achieved through provisions to be included in the precinct code, land releases, public domain upgrades (which will be subject to consideration by the ACT Government through future budget processes) and completion of further studies.

"ADDITIONAL HOUSING CHOICE IN THE CENTRE WOULD CONTRIBUTE TO A SENSE OF ACTIVITY AND COMMUNITY...

5.6.1 CREATE DISTINCT AREAS AND FUNCTIONS IN THE **CENTRE**

Reinforcing the character and built form of the precincts in the Calwell group centre will build on the existing sense of identity in the centre. It will create a framework to plan where heritage conservation and/or development and redevelopment should happen in the future. (Map 19)

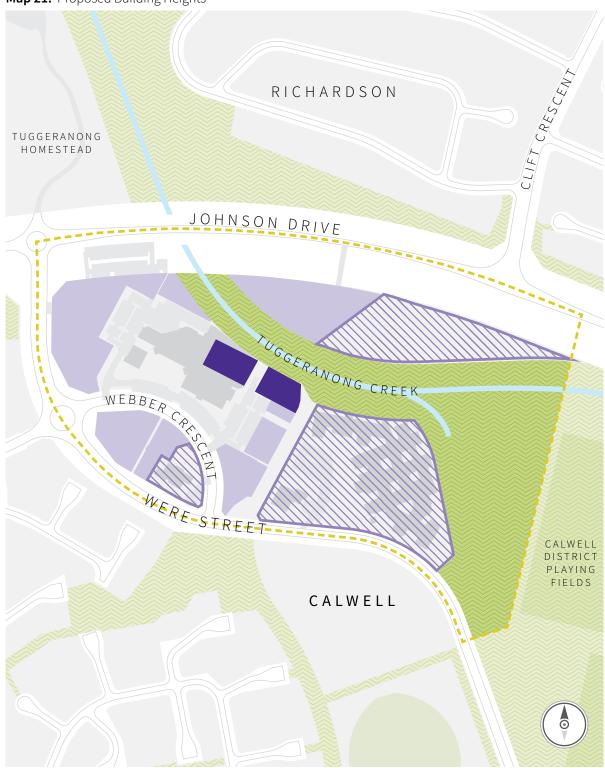
COMMERCIAL CORE PRECINCT

The commercial core precinct incorporates a variety of retail and commercial uses. A significant amount of these uses are located within the shopping centre, which has been designed, built and extended under one roof. This has the convenience of shopping in one location; however, it lacks interest and activity on the outside as many of the shops face inwards. There is currently little opportunity for passive surveillance from the shopping centre to the outside public areas.

The commercial core precinct has the capacity to incorporate changes that provide better interaction with the public domain. Key public areas such as meeting places and play spaces should be located next to busy areas such as main pedestrian routes, destinations, building entries and active frontages.

This precinct has the capacity to incorporate higher buildings, which could include residential uses. Additional housing choice in the centre would contribute to a sense of activity and community in the centre and increase passive surveillance. (Map 21)

Map 21: Proposed Building Heights

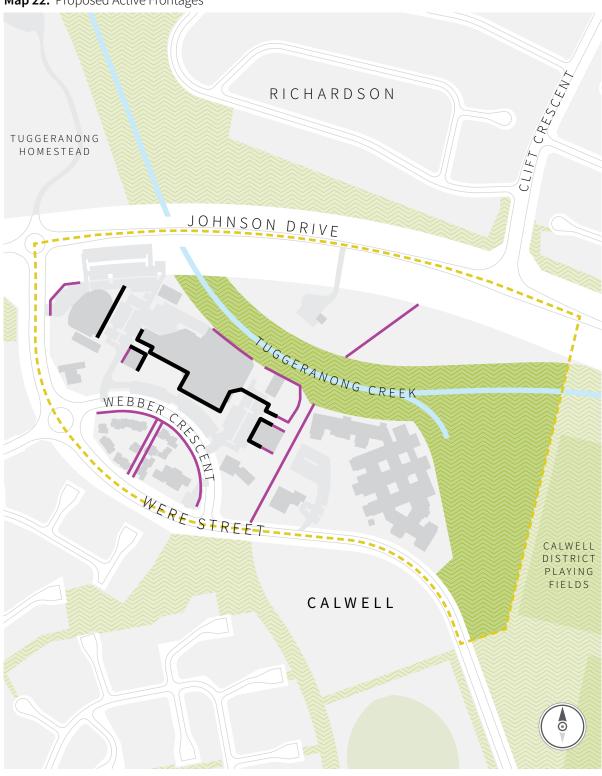


Medium rise (up to 4 storeys)

2 - 4 storeys for community land use

Low rise (up to 2 storeys)

Map 22: Proposed Active Frontages

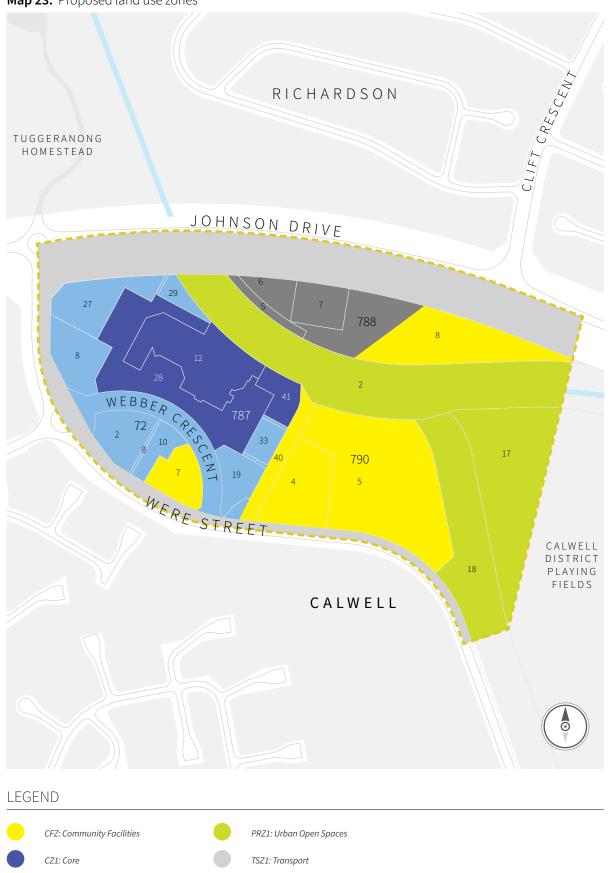


Primary active frontage

Secondary active frontage

Map 23: Proposed land use zones

CZ3: Services



TSZ2: Services

RECOMMENDATIONS AND OPPORTUNITY TO IMPROVE THE COMMERCIAL CORE PRECINCT'S CHARACTER AREAS

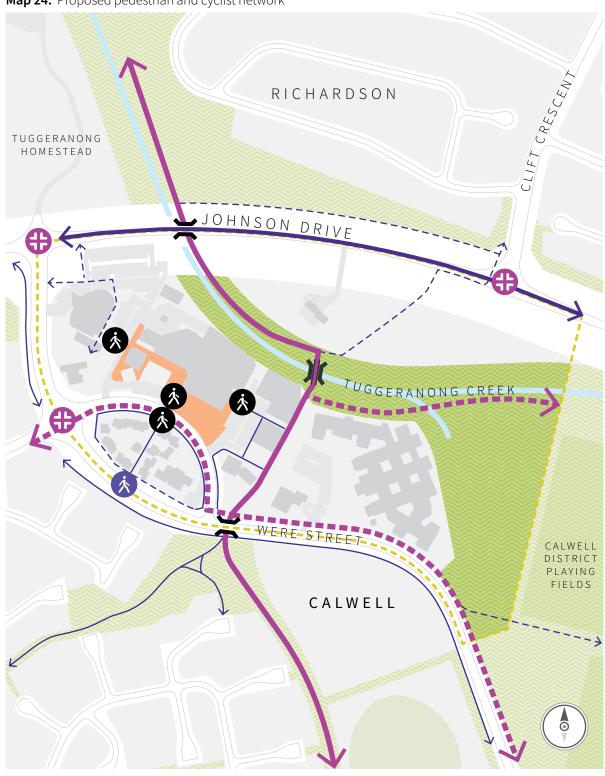
- » Reinforce and incorporate active frontages, particularly on the southern face of the shopping centre, and main pedestrian routes to activate public areas and create interest in the building facade (Map 22).
- » Locate public meeting places and play spaces next to active frontages.
- » Incorporate accommodation or residential development into the north-east part of the centre to activate areas in the centre day and night and support shops and services in the centre.
- » Locate higher buildings at the rear of the commercial area, with views over the open space network and the Calwell District Playing Fields. Residential areas must be planned for good solar access and cross ventilation.
- » Enabling further development and redevelopment in the centre through the review of building heights and proposed land use zoning, as shown in Maps 21 and 23.

RECOMMENDED PLANNING POLICIES

- » For new development or redevelopment, incorporate setbacks at higher levels to allow for solar access to public places and along main pedestrian routes.
- » For new development or redevelopment, incorporate balconies for new residential developments providing passive surveillance over pedestrian routes and public places and public open space.
- » New development or redevelopment fronting primary active frontages, as shown in Map 21 and Map 22, to:
 - » be orientated towards the streets and the public domain
 - » be required to incorporate transparent frontages for at least 70% of the building frontage
 - » be required to have active uses such as shops, restaurants, cafés and community facilities

- » not allow residential use on the ground floor, and
- » provide awnings designed to shelter pedestrians and create a sense of human scale and enclosure.
- » New development or redevelopment fronting secondary active frontages, as shown in Map 22, to:
 - » be oriented towards the street and parking areas and main pedestrian routes to provide passive surveillance
 - » may be fronted by shops/restaurants/cafés, and
 - » be adapted at the ground floor for commercial uses; for example, new buildings will have a floor to ceiling height that is suitable for commercial use.
- » New development or redevelopment building design to achieve the following:
 - » entrances to common areas for residential use provide a strong visual connection to the street and ensure a high level of surveillance
 - » driveways and pedestrian entrances to the site are visible from the block boundary
 - » west facing facades incorporate sun shading into building designs
 - » car parking not to front onto main pedestrian routes and streets at ground floor, and
 - » service access not to front onto main pedestrian routes and public places.
- » For new development or redevelopment of Block 12 Section 787 Calwell allow two to four storey building height. Setback upper storeys to minimise over shadowing of the public domain and to minimise bulk and scale of this development as shown in Map 21.
- » Block 12 Section 787 Calwell to maintain a 10 metre public space easement over part Block 12 Section 787 Calwell at ground level adjacent Block 41 Section 787 Calwell.
- » For new development or redevelopment of Block 41 Section 787 Calwell generally allow up to four storey building height. Development to the main pedestrian route to be setback above two storeys to minimise overshadowing of the public domain and to minimise the bulk and scale of this development as shown in **Map 21**.

Map 24: Proposed pedestrian and cyclist network





Map 25: Proposed pedestrian and cyclist network to surrounding areas CHISHOLM CLIEF CRESCENT GGERANONG CREEK RICHARDSON TUGGERANONG HOMESTEAD OHNSON DRIVE OUTTRIM AVENUE DOWN ARD STREET CALWELL DISTRICT PLAYING FIELDS CASESCENT CALWELL HIGH SCHOOL CALWELL THARWA DRIVE **LEGEND** Proposed onroad cycle lane Proposed footpath Bus stop Proposed shared-use path (pedestrian Existing pedestrian crossings Underpass and cycle route) (1) Existing shared-use path Improve pedestrian access Pedestrian bridge \oplus Existing footpath Proposed intersection upgrade

» Block 41 Section 787 Calwell to allow for a 6 metre pedestrian corridor (public easement) with capacity for deep rooted planting.

RECOMMENDED PUBLIC DOMAIN UPGRADES

- » New development or redevelopment to contribute to upgrading of the public domain to improve the amenity of the centre.
- » Provide entry markers, such as signage or public art, at the intersections of Johnson Drive and Were Street and Were Street and Webber Crescent, at both ends, and the connection of the shared path to the centre. These will help guide new visitors into the centre and be designed to contribute towards the centre's character and unique identity.
- » Investigate the possibility of signage along the Monaro Highway to reinforce the entry to the centre and encourage new visitors.
- » Refer to Section 5.6.4 for recommendations for upgrading the public domain.

COMMERCIAL SERVICES PRECINCT

The commercial services precinct will continue to allow for commercial uses in the centre. The Calwell Club and the service station provide useful services; however, they are open late and can be noisy. Uses appropriate to the nature of these facilities should be considered in future development or redevelopment.

RECOMMENDATIONS AND OPPORTUNITIES TO IMPROVE THE COMMERCIAL SERVICES CHARACTER AREAS

- » Uses in this part of the centre to primarily provide for the commercial and services needs in the centre.
- » Retain existing building heights to allow for diverse uses and small business.
- » Integrate active frontages with future development and redevelopment to connect with the shopping centre and main pedestrian routes.

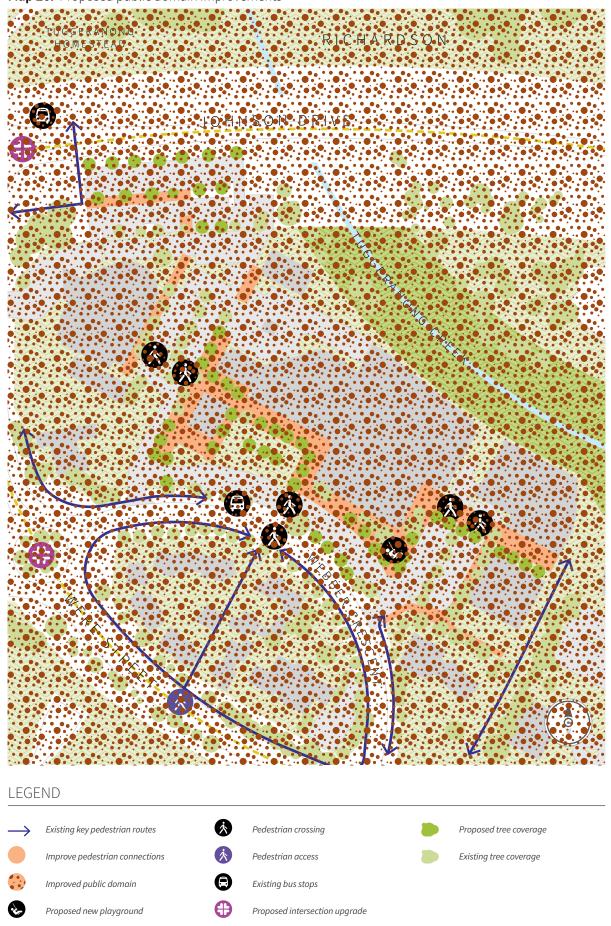
RECOMMENDED PLANNING POLICIES

- » Retain CZ3 zoning and two-storey height limit.
- » Incorporate requirements for active frontage into the precinct code.
- Require new development or redevelopment fronting primary active frontages, as shown in Map 22, to:
 - » be orientated towards the streets and the public domain
 - » be required to incorporate transparent frontages for at least 70% of the building frontage
 - » be required to have active uses such as shops, restaurants, cafés and community facilities fronting the primary active frontage
 - » restrict residential use on the ground floor, and
 - » provide awnings designed to shelter pedestrians and create a sense of human scale and enclosure.
- » Require new development or redevelopment fronting secondary active frontages, as shown in Map 22, to:
 - » be oriented towards the street and parking areas and main pedestrian routes to provide passive surveillance
 - » may be fronted by shops/restaurants/cafés, and
 - » be adapted at the ground floor for commercial uses; for example, new buildings will have a floor to ceiling height that is suitable for commercial use.

RECOMMENDED PUBLIC DOMAIN UPGRADES

- » Connect the commercial services area with main pedestrian routes in the centre as shown in **Map 26**.
- » Liaise with stakeholders to improve pedestrian access in privately leased areas.

Map 26: Proposed public domain improvements



COMMUNITY LIVING PRECINCT

- » The community and living precinct incorporates a range of community uses including child care, churches, the swim centre and the aged care facility. This area also incorporates some existing residential development. Some of these sites could be redeveloped in the future; however, it is preferable to retain the community use of these facilities whether they are in community or commercial land use zones in order to continue to provide much needed services to the community.
- » The character of this precinct will need to continue to incorporate landscaping, particularly where the building is setback from the site boundary.

RECOMMENDATIONS AND OPPORTUNITIES TO ENHANCE THE COMMUNITY LIVING **PRECINCT**

- » Allow for future community or recreation uses north of Tuggeranong Creek on part Block 8 Section 788 Calwell, to the east of the pedestrian pathway, to provide for future community uses.
- » Plan to rezone Block 8 Section 788 Calwell to enable community uses to the east of the pedestrian pathway and retain the existing zoning (TZ2: Service Zone) to the west of the pedestrian pathway to retain and allow for the proposed State Emergency Services (SES) facilities. Retain easement for public access through this site.
- » Connect these facilities to the broader pedestrian and cycle network and the centre.
- » Development in Section 788 Calwell provides passive surveillance and opportunities for access points to pedestrian walkways and open space.
- » Incorporate access to part Block 8 Section 788 Calwell with the Clift Crescent intersection upgrade.
- » Development along main pedestrian and cycle routes through the centre to enhance activity, visibility and passive surveillance.
- » Continue to incorporate on-site car parking in future development or redevelopment.
- » Incorporate landscaping, particularly on sites where the building is setback from the site boundary.

- » Require new buildings or redevelopment fronting secondary active frontages, as shown in Map 22, to:
 - » be oriented towards the street and parking areas and main pedestrian routes to provide passive surveillance, and
 - » may be fronted by community facilities/ shops/cafés.

RECREATION, COMMUNITY AND OPEN SPACE PRECINCT

The recreation, community and open space precinct provides recreation uses for the local area and the broader district. The playing fields will retain their primary function as outside recreation areas and for schools as critical education infrastructure

RECOMMENDATIONS AND OPPORTUNITIES TO ENHANCE THE RECREATION, COMMUNITY AND OPEN SPACE PRECINCT

- » Continue to promote the Calwell District Playing Fields as a sporting hub for the district.
- » Provide safe crossing points from Calwell District Playing Fields to the centre and the surrounding area.

RECOMMENDED PUBLIC DOMAIN UPGRADES

- » Connect the Calwell District Playing Fields to the shopping centre along Were Street with a shared path.
- » Create a shared path around the Calwell District Playing Fields for recreation use and for access.



HERITAGE PRECINCT

The heritage precinct is heritage listed. It includes the Tuggeranong Homestead and enables activities such as community markets. The heritage precinct could better connect with the centre facilities, parking and pedestrian and cycle connections.

RECOMMENDATIONS AND OPPORTUNITIES TO ENHANCE THE HERITAGE PRECINCT

- » Improve pedestrian connections linking the Tuggeranong Homestead precinct to the centre.
- » Improve connections across Johnson Drive for people using the bus services to provide a safe point of connection for community market visitors.
- » The Tuggeranong Homestead precinct is a historically significant precinct which could add to the character of the Calwell group centre as well as broader Canberra. There is an opportunity to locate residential development and/or short term accommodation in the centre to allow visitors to access destinations such as the Tuggeranong Homestead.
- » Continue to promote awareness of this facility in the local and wider community through education programs such as the Heritage Festival.

RECOMMENDED PUBLIC **DOMAIN UPGRADES**

» Integrate pedestrian/cycle connections between the Tuggeranong Homestead, the bus stops and the centre.

5.6.2 PROVIDE SAFE **CONNECTIONS WHICH** ARE EASY TO NAVIGATE TO AND WITHIN THE CENTRE FOR PEDESTRIANS AND **CYCLISTS**

Providing safe, connections for pedestrians and cyclists to the Calwell group centre will provide opportunities for people to participate in active travel and better connect to destinations in the centre. (Map 24)

RECOMMENDATIONS AND OPPORTUNITIES TO IMPROVE THE CENTRE'S PEDESTRIAN AND CYCLE CONNECTIONS

- » Create a pedestrian and cycle network to and within the centre, providing safe and legible access for people of all ages and abilities.
- » Reinforce and connect existing pathways to build upon the existing pedestrian and cycle network.
- » All new pathways for pedestrians and cyclists to be between 1.5-2m wide
- » Integrate public transport with pedestrian/cyclist routes in the centre.
- » Provide visible, easy to navigate connections through the surface car parks to improve safety for pedestrians and cyclilsts.
- » Make the centre safer day and night for all users by improving lighting and opportunities for passive surveillance.
- » Encourage active living to promote healthy living. Active living is a way of life that values and integrates physical activity into our everyday routines, helping people lead healthier, more active lives.
- Improve the pedestrian and cyclist experience to the centre from the surrounding areas by connecting existing paths and allowing for more trees, seating and lighting along main pedestrian routes (Map 25).
- » Provide high quality supportive infrastructure such as water bubblers, seating and bicycle parking to encourage active travel.

RECOMMENDED PLANNING POLICIES

- » Provide awnings/shelter along main pedestrian areas with any new development or redevelopment.
- » Integrate the government's Active Travel policy when planning for improvements to the pedestrian and cycle network. This includes consideration for the proposed on-road cycling on Johnson Drive in future road upgrades.
- Integrate the requirements of crime prevention through environmental design when implementing upgrades to pedestrian pathways and public spaces.

RECOMMENDED PUBLIC DOMAIN UPGRADES

- » Reinforce the existing north–south pedestrian and cycling network to and through the centre and provide connections to enable east–west connections to and through the centre.
- » Provide safe crossing points for pedestrians and cyclists across Were Street and Webber Street to the centre.
- » Encourage the use of the Park and Ride facility by integrating it with the main pedestrian/cycling routes in the centre.
- » Integrate pedestrian/cycle connections across Johnson Drive to the Tuggeranong Homestead, the bus stops and the centre.
- » Improve the lighting of underpasses near the centre.
- » Provide safe pedestrian access for Richardson residents across Johnson Drive.
- » Formalise the desire lines, or dirt tracks, connecting the Calwell District Playing Fields to the shopping centre along Were Street and behind the aged care facility through the urban open space area as shown on Map 25.
- » Create a shared path around the Calwell District Playing Fields for recreational use for all users and to improve access to the centre.
- » Connect the district playing fields with proposed upgrades for the intersection on Clift Crescent and Johnson Drive through the shared path network.
- » Create safe access for pedestrians and cyclists from the shopping centre to the commercial services precinct.
- » Provide directional signage in the centre to key destinations.
- » Provide seating along main pedestrian routes and in public places.
- » Improve safety in the centre by ensuring sufficient lighting along main pedestrian and cycle routes, at bus stops and the Park and Ride.
- » Provide locations for bicycle parking that are close to bus stops, community use and retail including the eastern entry to the centre.
- » Improve gradients of pathway crossings to the shopping centre from the surrounding carparks.

» Zebra crossing to the shopping centre to be raised and pedestrian entry to the shopping centre to be widened to prioritise pedestrians and cyclists.

5.6.3 PROVIDE A WELL-CONNECTED AND CONVENIENT CENTRE FOR VEHICULAR ACCESS AND CAR PARKING

The centre is convenient in part because of its location adjacent to the major arterial road network and the amount of surface car parking surrounding the centre which services the centre. However, the existing layout of parking also impacts on pedestrian and cyclist access and safety. For the centre to be pedestrian and cycling friendly and efficient and safe for vehicles, it is critical to manage the parking and traffic movement effectively.

RECOMMENDATIONS AND OPPORTUNITIES TO PROVIDE A WELLCONNECTED CENTRE FOR VEHICULAR ACCESS AND PARKING

- » Reduce potential for conflict between vehicles, pedestrians and cyclists at the entry to the centre and in the adjoining streets and car parking aisles.
- » Slow the speed of vehicles around pedestrian areas and public places.
- » Ensure pedestrian crossings are not next to loading zones or driveways.
- » Retain the loading dock access and limit access for large transport in pedestrian areas.
- » Manage car parking to ensure the centre is efficient and accessible.
- » Consider potential locations for electric vehicle public infrastructure to support the low emission vehicle strategy and encourage alternative transport use.
- » Ensure the legibility of pedestrian and cycle access through the surface car parking.



Artists impression of the public domain including play spaces for children.

RECOMMENDED PLANNING POLICIES

- » Ensure any changes to vehicle intersections are integrated with broader traffic movement and safety regulations.
- » Integrate pedestrian and cycle access with future vehicle intersection planning.
- » Require new development and redevelopment to provide car parking on site.
- » Generally retain surface car parking in the centre for convenience and access.

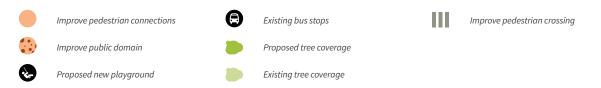
RECOMMENDED PUBLIC DOMAIN UPGRADES

- » Retain short-term parking close to the centre and locate long-term parking away from the commercial core through re-signing of parking areas.
- » Provide sufficient accessible car parking next to the shopping centre and other destinations in the centre.
- » Allow for motorcycle and scooter parking next to shops and services.

CALWELL SHOPPING CENTRE Ш BISTRO CARPARK CARPARK SOUTHERN PARKING AISLE WEBBER CRESCENT

Map 27: Proposed public domain improvements (detailed)

LEGEND



- » Consider proposed intersection upgrades for pedestrian, cyclist and vehicular access and safety at:
 - » Johnson Drive and Were Street
 - » Were Street and Webber Crescent, and
 - » Clift Crescent and Johnson Drive (to provide access to Calwell part Block 8 Section 788 Calwell and improve access for Richardson residents).
- » Retain a low-speed zone (40 km per hour) on Webber Crescent to better provide for pedestrians and cyclists.
- » Incorporate at grade treatment to the entry and exit of the one-way southern parking aisle. Narrow the entry and retain one lane to slow traffic and indicate an area of higher pedestrian activity.

- » Establish the southern curved car parking aisle next to the centre as a low-speed zone (20 km per hour) that better provides for pedestrians and cyclists and improves the safety for all users including motorists.
- » Allow for the enhancement of the public domain whilst maintaining the through traffic in the southern parking aisle and minimising the loss of car parking.

RECOMMENDED FURTHER STUDIES

- » A detailed traffic operation study with consideration for pedestrians and cyclists for the intersections on Were Street and the entry and exit areas to the shopping centre, the southern parking aisle and the service station.
- » A detailed parking study that investigates the centre's parking including parking in front of the centre and between the Calwell Club and the Park and Ride.
- » A detailed parking study that investigates the parking for the Calwell District Playing Fields with consideration for access to existing parking in the surrounding areas.

5.6.4 ENHANCE AND ACTIVATE THE PUBLIC DOMAIN

» Encourage a high quality public domain that contributes positively to the streets and places in the centre. To provide a pedestrian-friendly environment and create opportunities for people to meet and socialise, it is essential to activate the public domain (Map 26 and 27).

RECOMMENDATIONS AND OPPORTUNITIES TO IMPROVE THE CENTRE'S PUBLIC DOMAIN

- » Strengthen the main pedestrian and cycle routes into and through the centre and connect to public places.
- » Plan for active frontages to maximise activities in public areas.
- » Create an environment that includes a play space for children of all ages. Collocating playing spaces with active shop fronts, including cafés will provide passive surveillance to these areas.
- » Encourage appropriate uses next to the public space and play areas that do not detract from the safety and amenity of these areas.

- » Design the public spaces to encourage temporary uses, such as markets, that activate the public areas and main pedestrian routes.
- » Consider linking events in the public spaces with other activities in the area such as the district playing fields, community markets and schools.
- » Work with the community and local business groups to improve the centre's public spaces, landscaping and street character to improve the public domain and the centre's sustainability.

RECOMMENDED PLANNING POLICIES

- » Encourage active frontages at the ground floor adjacent to public meeting places, play areas and main pedestrian routes. Active uses will provide passive surveillance to these areas.
- Ensure upper floors in new development or redevelopment have balconies overlooking public spaces for passive surveillance and provide a 'human scale' to the height and massing of the building.
- » Ensure new development or redevelopment is designed to prioritise amenity in the public domain by activating public spaces and prioritising pedestrian movement.
- Provide new planning guidelines to ensure any development or redevelopment minimises overshadowing to public places and sets back taller buildings to reduce visible bulk and scale.

RECOMMENDED PUBLIC DOMAIN UPGRADES

- » Improve the design of the existing public domain to incorporate a range of play spaces, shade trees, shade structures and seating.
- » Upgrade public domain elements connecting pathways and public spaces to incorporate lighting, signage, rubbish bins, level pavement and landscaping.
- » Ensure public domain and play areas are safe and allow for good passive surveillance.
- » Encourage uses with active frontages on the south side of the shopping centre facing onto public spaces.
- » Improve linkages from public spaces and the main pedestrian routes to key destinations.
- » Plan for lighting in the design of the public spaces that provides a consistent, functional and safe public domain.
- » Create a pedestrian-friendly and child-friendly public space to the south-east of the shopping centre with uses such as cafés fronting onto this space.
- » In planning this area, consider:
 - » solar access to play spaces and seating
 - » shops and businesses having active frontages on to this area
 - » expanding partway into adjacent car parking to allow for the co-location of play areas, cafés and landscaping in the public domain
 - » linking play areas to main pedestrian and cycle routes

- » protecting play areas from vehicular traffic
- » slowing traffic along the southern parking aisle
- » ensuring visibility for traffic safety
- » locating short-term car parking adjacent to the shopping centre and long-term car parking at the periphery, and
- » ensuring sufficient strategically placed accessible car parking in the vicinity.
- » Enhance the public domain outside the main shopping centre entry with trees and seating when the playground is relocated to the south east part of the centre.

RECOMMENDED FURTHER STUDIES

» Provide a detailed study that further investigates improvements to the public domain and to pedestrian and cycle routes to provide quality public spaces and encourage active travel.

5.6.5 IMPROVE THE CENTRE'S SUSTAINABILITY THROUGH THE DESIGN OF BUILDINGS, THE PUBLIC DOMAIN AND THE SURROUNDING **ENVIRONMENT**

» The sustainability of the centre requires an integrated approach to meet social, environmental and economic goals. Improving sustainability will enhance the centre's viability, the natural and built environment and the community.

"IMPROVE ... PUBLIC DOMAIN TO INCORPORATE A RANGE OF PLAY SPACES, SHADE TREES, SHADE STRUCTURES AND SEATING.

RECOMMENDATIONS AND OPPORTUNITIES TO IMPROVE THE SUSTAINABILITY OF THE CENTRE:

- » Through new development and redevelopment, provide the opportunity to improve the overall sustainability of the centre. Design new buildings and additions to provide access to sunlight and incorporate means for cross ventilation. Consider the use of alternative energy systems in new development and redevelopment.
- » Consider potential locations for electric vehicle public infrastructure to support the low emission vehicle strategy and encourage the use of renewable energy sources.
- » Incorporate WSUD initiatives to improve the centre's sustainability including the reuse of stormwater from the car wash to water the landscape infrastructure in the public domain.
- » Incorporate underground water tanks to collect stormwater run-off from the centre's roofs in new development or redevelopment including Blocks 12 and 41 Section 787 Calwell to water the landscape infrastructure in the public domain.
- » Incorporate porous paving to capture stormwater run-off around trees and landscaping.
- » Plan for capacity for deep-rooted planting and include tree pits with new plantings to ensure longevity of the landscape in the public spaces.
- » Utilise lighter coloured pavement materials in the public domain and utilise light coloured roofing material in new development and redevelopment to reduce urban heat gain.
- » Allow for future changes of use or circumstances to meet community needs through flexible planning for new development and redevelopment.
- » Enhance living (green) infrastructure to provide shade to public areas and improve the microclimate of the centre.

"IMPROVING SUSTAINABILITY WILL ENHANCE THE CENTRE'S VIABILITY, THE NATURAL AND BUIL **ENVIRONMENT ANI** THE COMMUNIT

- » Prioritise landscaping improvements along main pedestrian and cycling routes and in public places.
- » Retain and enhance corridors of green space and tree plantings to connect to the wider open space network and provide connections for wildlife and people.
- » Consider sustainable measures, such as a swale in the stormwater easement adjacent the Calwell District Playing Fields to potentially improve local water quality in the future.

SENSITIVE: CABINET ATTACHMENT C

RECOMMENDED PLANNING POLICIES

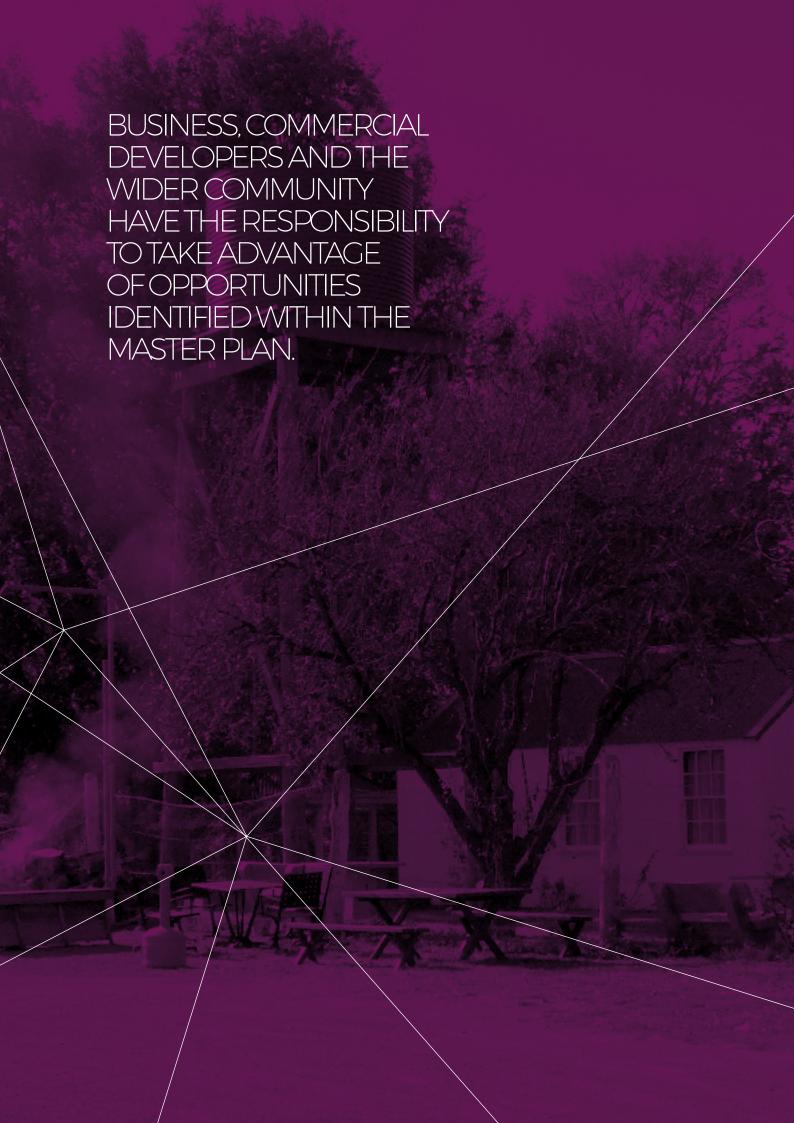
- » Retain and enhance green corridors along the Tuggeranong Creek easement to allow for wildlife connections through the suburbs.
- » Ensure tree plantings are within 100 metres of each other to allow for wildlife connectivity.
- » Investigate opportunities for community gardens near the centre that allow people who live and work in the area to produce food and be active and healthy in the community.
- » Integrate water quality initiatives with policy objectives from the AP2: A New Climate Change Strategy and Action Plan for the ACT (2012).
- » Ensure heritage consideration and approval for all future water quality initiatives that could impact on heritage areas or precincts.
- » Ensure development above the ground floor has openable windows to allow for cross ventilation in residential apartments and office premises and provides interest along the facade.
- » Ensure upper storeys include balconies and have orientation for solar access.

RECOMMENDED PUBLIC DOMAIN UPGRADES

- » Plant trees and landscape along main pedestrian and cycling routes and public areas to provide shade and improve the microclimate.
- » Plan for landscaping in sites where buildings are set back from the block boundary.
- » Incorporate trees as markers to the entry and exit of the southern parking aisle and locate trees in surface parking areas to provide shade and to mitigate against heat island effects.

6. RECOMMENDATIONS FOR IMPLEMENTATION

Calwell Group Centre Master Plan



6. RECOMMENDATIONS FOR IMPLEMENTATION

61 THE PROCESS **OF CHANGE**

Implementation of this master plan can be through:

- » a Territory Plan variation, including a revised precinct code for the centre
- » sale of Territory-owned land, otherwise known as land release
- » public domain upgrades
- » commercial opportunities, and
- » further studies.

Implementation of the master plan will be progressive over the longer term as implementation is dependent on investment decisions by private business, land availability and capital works funding for public domain upgrades from the ACT Government. The ways the master plan can be implemented are described in more detail below.

TERRITORY PLAN 6.2 VARIATION

A variation to the Territory Plan to revise the existing Calwell Precinct Code will realise some of the planning policy recommendations outlined by the master plan. The precinct code will provide the opportunity for the building heights, setbacks and land uses outlined in the master plan to be realised as development and redevelopment occurs.

There will be opportunity for the community to provide feedback on the precinct code through a separate community engagement process.

LAND RELEASE/ **POSSIBLE** REDEVELOPMENT

There are no sites currently nominated for land release on the ACT Government's Indicative Land Release Program in Calwell.

Map 28 illustrates a possible development and redevelopment sequence beyond that outlined in the Indicative Land Release Program and includes currently leased sites. This proposed sequence could vary as circumstances and needs change for the centre. A Territory Plan variation to part Block 8 Section 788 would also be necessary as outlined in the master plan.

6.4 PUBLIC DOMAIN **UPGRADES**

Infrastructure and public space improvements are required to realise the vision and some of the strategies of this master plan. There are opportunities for the private sector to contribute to the public domain through partnerships with the government or as part of off-site works.

Works undertaken by the ACT Government will involve further investigations by various government agencies and funding consideration through future government budget processes. Public domain upgrades undertaken by the ACT Government are based on a number of considerations including population growth, the age of existing assets and infrastructure and the wider budget context within the Territory.

Map 28: Possible development and redevelopment in the centre RICHARDSON TUGGERANONG HOMESTEAD JOHNSON DRIVE TUGGERANONG CREEK WEBBER CARSCEN WERE STREET CALWELL DISTRICT PLAYING FIELDS CALWELL **LEGEND** Stage 1

Stage 2

Stage 3



Artists impression of the Calwell Group Centre.

6.5 COMMERCIAL **OPPORTUNITIES**

Business, commercial developers and the wider community are responsible for taking advantage of opportunities identified within the master plan. A number of changes indicated in the master plan are on existing developed sites or require substantial investment. Therefore, implementation of the master plan will be progressive over the longer term as investment opportunities are realised.

FURTHER STUDIES 6.6

Potential further studies are detailed below.

6.6.1 DETAILED TRANSPORT **OPERATIONS STUDY**

Complete a detailed transport operations study with consideration for pedestrians and cyclists for the intersections on Johnson Drive and Clift Crescent, Johnson Drive and Were Street, Were Street and Webber Crescent and the entry and exit areas to the shopping centre, the southern parking aisle and the service station to inform proposed intersection upgrades and to improve the traffic flow in the centre for all users including pedestrians and cyclists.

"WORK WITH LOCAL COMMUNITY **GROUPS TO IMPROVE** PUBLIC SPACES, LANDSCAPING, FOR A MORE SUSTAINABLE CENTRE."

Prepare a detailed parking study that investigates the centre's parking including parking in front of the shopping centre and the parking between the Calwell Club and the Park and Ride. Also investigate pedestrian and cyclist connections through this car parking to improve the safety and navigation through these areas for pedestrians and cyclists.

6.6.2 PUBLIC DOMAIN, PEDESTRIAN AND CYCLE **UPGRADES - FEASIBILITY**

Prepare a feasibility study that further investigates improvements to the public domain with a co-located playground to the south east of the centre as identified in this master plan. This includes assessment for the public domain in front of the shopping centre and improvements to the pedestrian and cycle routes to provide quality public spaces that encourages more people to walk and cycle to the centre.

6.6.3 ACCESS AND **CONNECTIVITY TO** THE CALWELL DISTRICT PLAYING FIELDS

Prepare a feasibility study which investigates improvements to connections from the Calwell District Playing Fields to the wider pedestrian and cycle network including the surrounding suburbs.

Prepare a feasibility study that considers access and parking to support the function of the Calwell District Playing Fields.

7. ENDNOTES

- 1. Australian Bureau of Statistics (ABS) Estimated Resident Population (cat.3218.0)
- 2. ABS Estimated Resident Population (cat.3101.0)
- 3. 'ACT Population Projections: 2012-02' ACT Government 2013
- 4. ABS Estimated Resident Population (cat. 3218.0)
- 5. ABS Estimated Resident Population (cat. 3218.0)
- 6. ABS Estimated Resident Population (cat. 3218.0)
- 7. 'ACT District and Suburb Resident Population Estimates to 2031', ACT Government 2016
- 8. ABS Population by Age and Sex, Regions of Australia (cat. 3235)
- 9. ABS Population by Age and Sex, Regions of Australia (cat.3235)
- 10. ABS 2011 Census of Population and Housing
- 11. ABS Estimated Resident Population (cat 3218.0)
- 12. ACT Government, Environment and Planning Directorate, 2015



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