



draft

DRAFT - FOR PUBLIC CONSULTATION

Mackay
city centre local area plan
Mackay City Centre Strategy
and Urban Design Principles

March 2013

This Mackay City Centre Strategy and Urban Design Principles forms part of the Mackay City Centre Local Area Plan project and informs the Mackay city centre local plan in the Mackay Region Planning Scheme. The Strategy has been prepared on behalf of Mackay Regional Council.

This Mackay City Centre Strategy and Urban Design Principles document for the Mackay City Centre Local Area Plan was written and desktop published by Deicke Richards in conjunction with project partner Lat 27 and assistance from strategic planning staff at Mackay Regional Council.

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This document is intended to provide a resource to the Mackay City Centre Local Plan that outlines a number of key planning strategies for the development and progression of the Mackay City Centre for the next 20 years. These strategies are considered to be fundamental planning tools for the development of a vibrant, prosperous and liveable modern regional city centre in Australia. It acknowledges and fosters the mixed use nature of the city centre with a greater focus on built form outcomes that add richness and character to the urban environment.

PUBLIC CONSULTATION



This draft Mackay City Centre Strategy and Urban Design Principles document forms part of the supporting strategies that have informed the drafting of the Mackay Region Planning Scheme (MRPS). Public consultation of this document runs parallel with the public consultation period of the draft MRPS.

Submissions should focus on the content of the draft MRPS and submitted during the draft MRPS consultation period. A properly made submission must include full name, address, contact details and a signature. Submissions can be:

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Contents

Chapter 1 - Introduction	1
Chapter 2 - City Vision	3
Chapter 3 - City Principles	5
Chapter 4 - City Futures	13
Chapter 5 - City Planning	15
Chapter 6 - City Form	23
Chapter 7 - City Movement	41
Appendix 1 - Glossary of other terms and acronyms	57
Appendix 2 - Building typologies	61

draft



Wood Street

01



Introduction

Mackay Regional Council is developing a new planning scheme for the region. One of the important first steps in this process was to formulate local area plans in key locations that identify good urban design principles for existing and future communities. These principles of good urban design will be incorporated into the new Mackay Region Planning Scheme.

The Mackay region has sustained strong population growth in recent times, particularly since 2001. High population growth is expected to continue into the foreseeable future, and Council is anticipating a regional population towards 200,000 people by 2031.

The City Centre will play an important role in accommodating the high predicted regional population growth and better balancing the Mackay's urban form by providing a more sustainable, consolidated and compact urban environment through a highly diverse mix of uses and activities including higher residential densities.

This document is part of an integrated approach to city centre planning and assimilates with the Mackay City Centre Public Realm Plan and the Mackay City Centre Parking Strategy.

The Mackay City Centre

The Mackay City Centre is the principal centre for the broader region of Mackay, Isaac and Whitsunday, and is the first tropical city to the north along the Queensland coast.

The City Centre is the principal economic centre for the region. The role of the City Centre is more than its function in a hierarchy. The City Centre fulfills a range of equally important roles and functions such as:

- A social place where people meet and interact and exchange goods, services and ideas.
- A cultural place where art, history and lifestyle generate delight and learning.
- A living place where people eat, live and sleep.
- A place of commerce where people work, innovate, learn and invest.
- A recreation place for living, relaxing, enjoying and entertaining.

Mackay needs to embrace all the above roles to truly develop into a city that engages with its history, its people, its climate and its setting. There are a number of documents that describe Mackay's role and function in the region and it is not the job of this document to repeat these statements. They can be read in Regional Plans, Corporate Plans and Community Plans. It is the purpose of this document to ensure that Mackay is unique and will fulfill all the above roles to become an even more liveable and memorable city in northern Australia.

To that end this document sets out some fundamental principles for the development of the city and nominates some key interventions and structural elements that need to be developed as the city further grows and matures.

Setting the foundation

Mackay has a history of innovation and early adoption of technology and processes. It is a city that has traditionally not been afraid of progress.

The Mackay City Centre Strategy is intended to provide a resource to the Mackay City Centre Local Plan, contained within the Mackay Region Planning Scheme, that outlines a number of key planning strategies for the development and progression of the Mackay City Centre for the next 20 years. These strategies are considered to be fundamental planning tools for the development of a vibrant, prosperous and liveable modern regional city centre in Australia. It acknowledges and fosters the mixed use nature of the city centre with a greater focus on built form outcomes that add richness and character to the urban environment.

The document charts a course for the future of the Mackay City Centre as the social, cultural and economic heart of the Mackay, Isaac and Whitsunday Region: a living and thriving centre of activity and commerce. It will do this by further developing the ideas and outcomes produced at the Enquiry by Design (EbD) workshop held for the City Centre in March 2011.

The document is structured around the key themes of:

- City Vision - setting a vision for the future growth and development of the city.
- City Futures - sustainability is inherent in every theme with some

specific issues highlighted.

- City Shape - considering the shape and form of the city, its land uses and associations.
- City Buildings - looking at the shape and form of buildings within the city, the relationship between buildings and the streetscape / riverscape, and how buildings contribute to the overall cityscape of Mackay.
- City Movement - considering how people will move within and around the city.
- City Spaces - the creation of a public realm that invites people to stay, interact and enjoy the city.

Population and employment projections

Permanent residential population projection

The current population within the City Centre is 4,316. This figure is expected to almost double over the next 20 years (to 2031) to be 7,700. The current and projected population figures represent permanent residents only correlating to existing established development and future development prospects to accommodate the projected residential growth. The projected population to 2031 represents the need for approximately 2,000 additional permanent dwelling units.

City Centre employment projection

The current number of people working within the City Centre, across retail, commercial, low impact industrial and community purposes sectors, is approximately 14,225 (as at 2011). This figure is expected to increase over the next 20 years (to 2031) to approximately 20,400. The current employment figure correlates to existing established commercial floor space available. The projected employment figure gives an indication on future commercial development required to accommodate employment growth over the next 20 years. The employment projection assumes an approximate increase of 121,600m² commercial GFA and 16,000m² low impact industrial GFA (increase in commercial and industrial GFA is based on sites that have a high likelihood of redevelopment) over the next 20 years that keeps pace with the overall growth within the region.

02



City vision

A vision for Mackay's City Centre, developed collaboratively with stakeholders and the Mackay community, foresees:

“Mackay City Centre is to be the destination of choice for people of all ages to live, work and recreate in a vibrant, diverse environment based on the city's unique mix of physical and cultural experiences. A walkable city that embraces its climate and its heritage - a city that is a place to live, learn, work and play”.

Specific outcomes required to achieve the City Centre vision highlight the need for:

An active and liveable City Centre

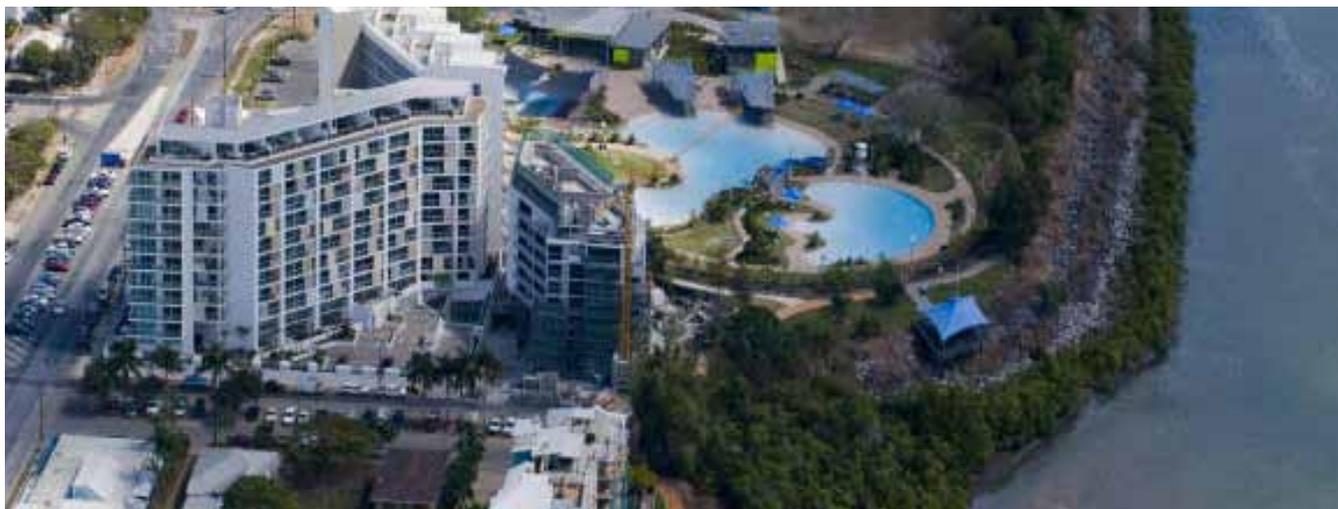
1. A focus on providing greater activity for the City Centre. Improve the quality and experience of the public realm so that it can attract and support the widest range of activities possible in encouraging community involvement as well as new investment potential.
2. A populated City Centre continues to attract and support a strong permanent residential and visitor accommodation base by offering an urban setting which attracts and enhances city living.

An accessible City Centre

3. The City Centre offers a choice of travel modes that reinforces the walkability of the city and functions as a transport hub facilitating the safe and convenient movement of people and goods.

A culturally vibrant City Centre

4. The City Centre supports a rich cultural environment, the strength of which increases participation by the regional community in a wide variety of events and festivals celebrating its multicultural diversity and artistic talent.



Lanai Apartment building and Bluewater Lagoon

An attractive City Centre

5. A City Centre is distinguished by the quality of its built environment and open spaces that strengthen Mackay's unique appearance and feeling.

A regional City Centre

6. A city that provides, promotes and develops local and regional business and employment opportunities, provides regional administration and commercial services and encourages diversity to promote the economic sustainability of the city beyond mining.

A sustainable City Centre

7. A city where streets and buildings respond to the character, context, setting and tropical climate of the region. Where there is an emphasis on sustainable development economically, environmentally and socially.

A river city

8. A city that embraces and celebrates the Pioneer River as part of the history and future of the City Centre, and as a source of great amenity, recreation and attraction.

03



City principles

Planning principles

Mixed use

- The City Centre is the primary centre within the region that has the greatest mix of uses (both horizontally and vertically) and the highest intensity of built form
- The City Centre maximises employment opportunities within the city core providing diversified employment opportunities
- A range of origin and destination land uses are provided including:
 - office and commercial space
 - retail spaces
 - high and medium density apartments (both short term accommodation and permanent residential accommodation)
 - retirement living and affordable housing opportunities
 - entertainment activities
 - community services (for example, child care)
 - education precincts
- The City Centre contains housing opportunities in a medium to high density format
- The City Centre is not one place or experience. The City Centre will contain a range of activity nodes and experiences which activate the city day and night
- Public transport services connect to the City Centre both locally and regionally



Wood Street

Design for walkable neighbourhoods

- Structure the city as a comfortable, walkable and inviting neighbourhood with the city core as its focus
- Retail and commercial uses inhabit and reinforce 'high street' development principles with no 'big box' development
- A quality public realm is an investment to encourage people to live in, visit, and enjoy the city
- Retain heritage and character buildings and streetscapes that provide the city with its sense of place and identity
- Provide a quality network of pedestrian linkages that includes shelter and shade throughout the city
- Limit car parking within the city core and supporting development precincts
- Provide for mixed-use activities to enable residents to walk to services



Wood Street

Provide priority for pedestrians and cyclists

- Manage vehicular and bus movements to create a pedestrian friendly environment
- Provide end of trip facilities to strengthen pedestrian and cycle movement
- Provide pedestrian friendly street environments that include shade, shelter, comfort, safety and wayfinding
- Provide a slow speed street environment that is conducive to pedestrian and cyclist safety
- Provide for a potential future cross river link for pedestrians and cyclists



Victoria Street

Create high quality places for people

- Create a high quality public realm that is reflective of the climate and its aspiration as a major regional centre in northern Australia
- Provide quality streetscape treatments including landscaping, street furniture and street lighting that are of a high city standard
- Development optimises its relationship with the public realm experienced in the street environment
- Plan for pedestrian oriented streets that are comfortable, convenient and inviting
- Use Crime Prevention Through Environmental Design (CPTED) principles
- Encourage after hours activities such as restaurants and cafes in appropriate locations

Quality outcomes in built form and architecture

- Built form outcomes reflect the character, history, climate and context of the city
- Building design and appearance is characterised by a variety of high quality, modern urban design outcomes that contribute to the cityscape of Mackay
- Building height reflects and exhibits the built form intensity and prominence of the City Centre as a major regional city in northern Australia
- Buildings have a presence on the street that reinforces the unique city grid layout and address and overlook streets and public spaces
- Prepare a Local Plan and associated policies to guide the desired built form outcomes for the city
- Protect existing character and heritage buildings and streetscape through adaptive re-use and the sensitive reinterpretation of character elements in new development

Plan for a diverse community

- Provide for housing diversity through the provision of a range of housing styles to ensure a social mix in the city is achieved
- Accommodate the needs of a diverse range of households (families, couples, lone person households, etc)
- Provide opportunities for home based offices
- Explore opportunities to provide affordable housing



Pioneer Promenade (Bluewater Trail)



Highrise development on River Street



City Centre Markets

Key themes and directions

The following key themes and directions set out some of the principal ideas and issues that have been explored throughout the Local Plan process through consultations and workshops. These ideas set a new direction and shape for the city helping to inform and influence policy and decision making for the City Centre.

1. The city core

The city core is the traditional commercial centre of Mackay and for a large part of Mackay's history was the 'whole town' where all services (commercial, business, government, industrial, community and recreational) were located. In essence, the city core will continue to provide for the bulk of the region's business, government and commercial services.

Land use within the city core is primarily commercial, retail and entertainment in nature with short term accommodation uses able to be accommodated as well (provided they are located in towers above the

podium and away from noise pollution). Permanent residential uses may not be consistent with the commercial nature/amenity of the city core.

The city core has considerable amenity due to its heritage and character façades, street based retail, café life and tropical verdant landscaping. Redevelopment of buildings in the city core is encouraged with potential development incentives to be used to promote retention of existing buildings and streetscapes whilst allowing taller buildings to occur. It is essential that this unique amenity and character is maintained.

2. Victoria Street

Victoria Street has the potential to restore and embrace its original intended role as the 'main street' of the City Centre. It is a key east west connecting link extending from the city core to Caneland Central shopping centre. Ultimately Victoria Street will provide a strong mixed use boulevard that links these two activity nodes. Buildings on the street have a "Victoria Street" built form character where buildings are

built to the front alignment and provide awnings along its entire length to ensure pedestrian activity and movement in all weather.

3. City residential

There will be a significant increase in permanent residents in the City Centre particularly in areas adjacent to the Pioneer River, east and west of the city core. The tallest buildings will locate in these two areas as it is a great source of residential amenity and will assist in enlivening the city. The City Centre provides a unique opportunity for high density residential living that is a short walk to employment, shopping, community facilities and recreational activities thereby negating the use of private motor vehicles to access these facilities and activities.

The City Centre will also provide for a large proportion of the city's short term accommodation activities being within close proximity to the Mackay Airport, Mackay showground and Mackay Entertainment and Convention Centre.

Lower density residential uses will locate in the area south of Alfred Street, which will further support the City Centre.



4. Embrace the Pioneer River

The Pioneer River is an immense source of amenity for the City Centre and a vital artery of history flowing through the Pioneer Valley. Council has begun to enliven the river's edge through the creation of a number of activity nodes such as the Bluewater Lagoon, Caneland Park, Pioneer Promenade and Bluewater Quay. These activity nodes are linked by the Bluewater Trail that begins to connect the city to the Pioneer River. Further development of public realm opportunities for both active and passive recreation including residential development should be explored, particularly on the Pioneer River frontage east of Carlyle Street.

Key to this will be the creation of safe pedestrian access points to the river from adjoining areas in the city. Development fronting the Pioneer River (east of Carlyle Street) contributes to the riverscape by providing a

generous publicly accessible boardwalk on the riverside of development and allows for active uses and generous public spaces at ground/river bank level.

5. Intensity transition

The City Centre will contain the most intense forms of urban development in the region. This means taller buildings closer to the Pioneer River with building heights transitioning down to lower scale buildings towards the southern (Shakespeare Street) and eastern (east of Brisbane Street) edges of the City Centre.

6. Connectivity

The City Centre is well connected by arterial roads (both north and south) and the Bluewater Trail. Gordon and Sydney Streets are important through streets in the city carrying large volumes of traffic.

They are also key points of entry into the City Centre. These streets will be encouraged to be developed as commercial armatures of the city with taller buildings contributing to a more formal, ceremonial street character.

Under grounding of over head power lines, particularly on Gordon Street will drastically improve the character of the streetscape and allow for landscaping treatments such as larger shade trees to be realised.

The Bluewater Trail connects the City Centre to the southern suburbs via 22km of trail, with over half being off-road. The introduction of a northern link trail across the Pioneer River connecting to northern suburbs and the establishment of the open space corridor within the former rail corridor has great potential to further strengthen and promote alternative modes of transport (walking and cycling) to the City Centre via safe and convenient off-road trails.



7. Green links

Under the original Karl Langer Mackay City Plan of 1952, Alfred Street linked green spaces as a grand boulevard at the southern edge of the city. The idea is to be realised under this strategy where both east and west sides of the City Centre are joined by a "green boulevard" which encourages movement, both walking and cycling, from the Mackay showground to Queens Park. This idea is to be extended to include north-south streets to achieve green links between Alfred Street and the Pioneer River. Streetscape improvements on Alfred Street mean this street will be an important residential address for residential development.

8. Caneland Central shopping centre

Caneland Central shopping centre is an internalised mall that attracts significant patronage, both locally and regionally. The shopping centre creates large amounts of traffic that has little to do with the rest of the City Centre. Remedial interventions are twofold. Firstly, a new traffic route needs to be explored behind the Memorial Pool to avoid large amounts of traffic using the Mangrove Road/Matsuura Drive route and offer an alternative access/exit route to the shopping centre.

With reduced traffic flows on Mangrove Road and Matsuura Drive, the shopping centre will be encouraged to open out these edges (including the riverfront edge) connecting to the rest of the City Centre. This will improve legibility of the shopping centre on these streets effectively creating a 'front door' and to encourage greater pedestrian movement between the city core and the shopping centre.

9. River Street

River Street is used as an alternative route through the City Centre to access the Forgan Bridge. This increases the volume of traffic on what should be a quiet street with considerable amenity given its proximity to the Pioneer River. Streetscape improvements including intersection and landscape treatments, pedestrian crossings and the like, are currently underway. This will improve pedestrian movement across River Street to access the Pioneer River.

Potential ground floor activities (restaurants and cafes) on River Street will strengthen the ever growing relationship between City Centre and the Pioneer River.



10. City services

This light industrial area to the east of the city core plays an important role in providing a range of day to day services (motor mechanical, trades supplies, home appliance repairs and the like) vital to the life of any place. Historically, this area was the city's industrial hub before the establishment of the Paget industrial area. It will be retained essentially as is, with some areas along the riverfront, encouraged to be redevelop for higher and better uses.

11. Linking the activity and amenity nodes

A number of activity and amenity nodes have been established within the City Centre. However, these activity and amenity nodes are poorly connected, which adds to the disconnect within the City Centre. This strategy looks to strengthen the links between the established activity and amenity nodes through a number of initiatives to achieve a more unified City Centre. Key links include Victoria Street (from Sydney Street to Caneland Central), Nelson Street (from "civic precinct" to Pioneer River), Alfred Street from Mackay showground to Queens Park, Sydney and Wood Streets (from Central Queensland TAFE campus to Pioneer River), and Pioneer River riverfront (from Bluewater Quay to Caneland Central).

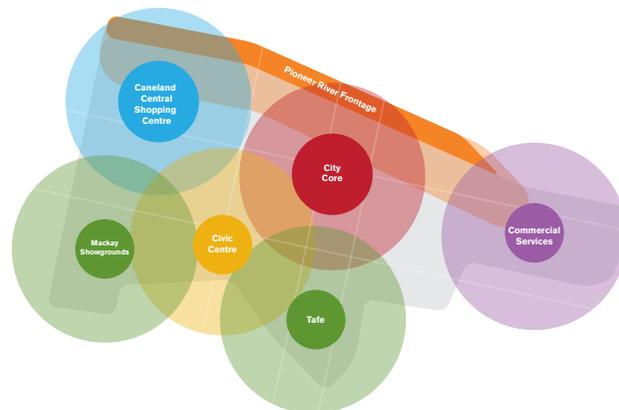
12. Laneway strategy

The City Centre has an established network of laneways within the city core precinct that are used for servicing the rear of buildings.

The laneway strategy is a long term strategy that will extend and establish a network of predominantly east-west laneways across the City Centre. Laneways will provide rear access to allotments with street frontage. The overall vision of the laneway strategy is to create a well coordinated fine grain network for pedestrians and vehicles that is safe, well activated, presentable and pleasant to use.

Laneways have the potential to contain services including water, sewerage, electricity and telecommunications. Laneways must be wide enough to accommodate service deliveries and garbage collection.

The network of laneways will complement the on-street pedestrian pathways further increasing the permeability of, and connectivity within, the city that promotes pedestrian use and activity. The benefits provided to pedestrians, business and service vehicles through the provision of laneways ensure the vitality and longevity of the city at street level.





Aerial view of the city centre looking southeast

04



City futures

Embedding sustainability

Sustainability is inherent in all aspects of the City Centre Strategy. Mackay has enormous capacity to develop into one of the most sustainable cities in Australia through the adoption of controls on city form and shape and through the adoption of technologies that assist in delivering sustainable outcomes. In all endeavors though, the community is at the heart of sustainability as shown in Figure 1.

City form

A compact urban form that promotes walking and cycling as genuine alternatives to vehicle movement has the ability to reduce reliance on private motor vehicles for access to local goods and services, accommodation and public spaces within the city. The City Centre contains the region's broadest mix of uses and activities allowing people to live, work and play in the city and encourage a dense and compact urban form that generates fewer vehicular movements. This essentially forms the basis of the land use strategy for the City Centre. The mixed use neighbourhoods on the southern edge of the city support the City Centre through high density residential uses.

Movement

Public transport networks allow people to move in, out, and around the City Centre accessing its diverse activities and services. It also allows people to access its broad range of employment opportunities from outside the City Centre. Within the City Centre, walking in the extremes of weather which affect the city can be difficult at times. Alternative modes of transport and movement can be promoted and encouraged through:

- the development of an extensive network of shelter and shade for the streets and pedestrian spaces;
- the provision of end of trip facilities within development that increases bicycle commuter trips;
- providing safe and convenient pedestrian and cycle paths into, through and out of the City Centre;

- providing a convenient and reliable urban bus service to, through and from the City Centre.

City buildings

The design and nature of buildings are important for a sustainable city. Not only should the buildings reflect the character and setting of their location but respond to the local climate as well. This response should promote buildings that have lower energy demand through the use of natural ventilation, building orientation, windows and shading and not relying heavily on artificial cooling and heating but build in energy efficiency through design of internal areas, façades and orientation.

Renewable energy for the City

The opportunity exists to create a self reliant hub for renewable energy, water supply and recycling for industry and domestic uses as part of this Mackay City Centre Strategy.

Racecourse Mill has the potential to deliver renewable electricity for the City Centre and the broader urban area of Mackay as part of a cogeneration strategy for Mackay.

Cogeneration plants and CHP's (combined heat and power) present opportunities to provide local energy solutions for local communities. Mackay Sugar Limited at Racecourse Mill, is embarking on adapting its mill operations to produce enough clean renewable energy to provide one-third of the Mackay region's electricity requirements by using bagasse from Mackay Sugar's three mills to generate 36 megawatts of renewable energy into the Mackay city electricity network.

Individual buildings can contribute to renewable energy production by incorporating solar panels on roofs and achieve energy efficiency through a number built form responses as mentioned in the "City Buildings" section of this chapter.

Climate change and natural hazards

Mackay is susceptible to a range of natural hazards including flooding and inundation, storm surge and tropical cyclones. Building forms in the city need to respond to these events to protect both life and property of inhabitants. This may include creating buildings with solid cores and refuges, independent energy supplies for each building, raising habitable floor levels above flood levels, and ensuring vital plant and equipment is located above flood levels.

Public realm

The public realm contributes to the sustainability of the city by providing shade and shelter for movement, reducing the heat island effect, adopting water sensitive urban design (WSUD) practices where practical and creating opportunities for outdoor recreation in close proximity to activity and amenity nodes. Recreation can be both active or passive promoting healthier lifestyle options for residents and visitors.



Figure 1: SUSTAINABILITY MODEL

05

River Street

Victoria Street

Gordon Street

Alfred Street

Sydney Street

City planning

Investment in a good plan, whether it be for new parts of a city or for the correction of older parts, if regarded for a year may appear expensive; if considered for a period of five years will be profitable; when considered for a period of fifty years will be an investment which, in subsequent days, the community will regret was not adopted sooner.

John Burns - The father of town planning legislation.

Planning strategy principles

The key planning principles behind the change in planning regime for the Mackay City Centre will be:

- Develop a strategic framework for the City Centre that tells the story of the city as a place and how it relates internally (i.e. links to other parts of the city), and externally (i.e. how it links to the Mackay urban area and the broader region)
- Linking land use, built form, public realm & connectivity outcomes for precincts and activity/amenity nodes
- The structure of the City Centre Local Plan code should be clear, succinct and avoid duplication
- Only target regulation where it is likely to make a clear difference and not create another hurdle in the Development Assessment process
- Link regulation to the parameters considered critical in achieving desired outcomes especially with respect to built form outcomes
- Greater focus on built form outcomes within a flexible 'mixed use' land use environment
- Use levels of assessment to avoid unnecessary development applications (e.g. City Centre activities that are consistent, compatible or complementary) and to encourage and discourage certain land uses (e.g. exempt, self-assessable, code and impact assessment) - trigger applications where value can be added to the process.
- Flexibility in pursuing innovative outcomes regarding land use, built form and public realm.

The following quote from The Urban Design Compendium summarises the benefits of mixed use development:

A successful and sustainable local neighbourhood is a product of the distances people have to walk to access daily facilities, the presence of a sufficient range of such facilities to support their needs, and places and spaces where a variety of activities can take place. There are a number of benefits of mixed use development which includes:

- *More convenient access to facilities*
- *Travel-to-work congestion is minimised*
- *Greater opportunities for social interaction*
- *Socially diverse communities*
- *Visual stimulation and delight of different buildings within close proximity*
- *A greater feeling of safety, with 'eyes on streets'*
- *Greater energy efficiency and more efficient use of space and buildings*
- *More consumer choice of lifestyle, location and building type*
- *Urban vitality and street life*
- *Increased viability of urban facilities and support for small business (such as corner shops)*

(Urban Design Compendium – English Partnerships, 2000)



Figure 2: CITY CENTRE NEIGHBOURHOOD STRUCTURE

Strategic Framework - city structure

Mackay owes an increasing debt of gratitude to Mr. J.H. Fitzgerald, the surveyor who prepared the first town plan. His foresight has provided the city with a nucleus which could hardly be planned more perfectly to-day, to provide for the requirements of the present city.

R.A. McInnis - City of Mackay Town Planning Scheme 1934

The City Centre is not just one neighbourhood, one place or one experience. Its broad expanse lends itself to the creation of a series of connected neighbourhoods, which can capitalise on the range of services and activities currently located in the City Centre. The City Centre can be formed as an aggregation of connected neighbourhoods each with their own focus and function (see Figure 2). The principal neighbourhood in Mackay is focused around the city core of Wood and Victoria Streets. This is the most highly recognisable space in the city, made memorable by its character and heritage buildings, which enclose the streets creating a distinct precinct. This focus is of regional as well as local significance and is recognised as the heart of the City Centre.

One of the City Centre's greatest features is its street grid structure. The grid layout allows for high permeability and connectivity across the entire city. The grid layout is conducive to good street orientated development and design creating continuous active and articulated frontages; and maintain/enhance views into and out of the city and vistas to important city landmarks and natural landscape settings.

City Centre neighbourhood

The established amenity nodes on the Pioneer River, the activity nodes of city core, "civic precinct", Central Queensland TAFE campus, Mackay showground, Caneland Central and ample employment opportunities are ideally situated within the City Centre to increase inner city living. It is envisaged that new mixed use commercial and short term accommodation development within the city core will retain heritage and character buildings and take advantage of potential

development incentives to renovate and rejuvenate city streetscapes. New development will retain these character buildings and reflect this character in building facades and detail. It is expected that this will be achieved through the reinterpretation of character elements rather than the simple duplication. The character of the buildings will be representative of the future of Mackay while maintaining respect for the character of the past. These buildings will tend to be lower in scale possibly up to 8 storeys depending on design merit.

Surrounding this core, taller residential buildings will be encouraged to develop. These residential uses will most likely gravitate towards the river taking advantage of the amenity of the locality. Commercial uses will tend to gravitate towards the core and Gordon Street where there is greatest movement of pedestrians and vehicles. However, it is not inconceivable, nor is it undesirable, that residential uses occur in the core or that commercial uses locate along, for instance, River Street.

This principal neighbourhood includes the Central Queensland TAFE campus, Council Administrative Buildings and a range of other cultural and community activities that are key elements of a thriving and vibrant City Centre. These elements support the principal neighbourhood and contribute to the broad range of experiences the City Centre has to offer.

Supporting the principal neighbourhood are three other residential neighbourhoods with centres located on Shakespeare Street, which is an important vehicle route on the southern edge of the City Centre.

Western neighbourhood

The western neighbourhood is centered around a group of local shops, known locally as Martin's Corner, on Shakespeare Street between Peel and Milton Streets. This area is predominantly residential in nature and contains a range of dwelling types from detached houses to low-rise (up to 3 storeys) apartment buildings. With good access to the City Centre, additional low-rise residential development will contribute life and

activity to the City Centre and offer a range of housing options.

Eastern neighbourhood

The eastern neighbourhood, is centred around local shops, known locally as Hatfields supermarket, at the intersection of Shakespeare and Moore Streets. Characterised by predominantly low density detached housing, this neighbourhood also has potential to develop a supporting role to the City Centre by providing a greater range of housing choice. Additional retail and other services would assist in helping to strengthen the local centre in this neighbourhood.

South central neighbourhood

It may be argued that a south central neighbourhood centred on the intersection of Sydney and Shakespeare Streets is also part of the neighbourhood structure fringing the City Centre. This area is characterised by its eclectic mix of commercial uses (including the Gasworks local centre), low impact industry, education services, and the amount of traffic moving along Sydney and Shakespeare Streets. This area is an extension of the City Centre along Sydney Street and in this respect forms part of the City Centre neighbourhood. However due to the nature and activity that exists and its potential to drive further employment opportunities associated with the city it is included in this strategy as a separate and supporting neighbourhood to the City Centre.

City zoning and precincts

Figure 3 shows the proposed zoning within the City Centre, which is consistent with the requirements of the Queensland Planning Provisions (QPP). A single zoning of Principal centre will cover most of the City Centre, with Low impact industry, Mixed use and Open space zones being used east of the Principal centre zone and along the frontage of the Pioneer River.

The entire city is inherently mixed use. That mix occurs either horizontally and vertically. Designating land use categories (zones) of either commercial or residential, to lots or blocks within the city therefore becomes impractical as a planning tool.

Creating a mixed use land use pattern allows for a great deal of flexibility for different uses to establish, relocate or redevelop as the city grows and matures.

Creating a mixed use designation over the entire city (or parts of it) does not mean there are no controls over land use. The city can indeed be divided into precincts consistent with its neighbourhood structure which aggregates similar land uses as shown in Figure 4. All 5 precincts will sit underneath the Principal centre zone. The precincts set out a preference for certain dominant land uses over others.

This allows one zoning (land use designation) over the majority of the city. Whilst land uses will be mixed and flexible, encouraging a range of activities and services compatible with the needs of a community within a city, the built form will be tightly controlled to ensure it responds positively to the city and the spaces that surround it.

Therefore, the trade off for greater flexibility in land use will be in tighter controls over built form. Built form controls will be developed on a street frontage basis with corresponding building typologies and are discussed further in this document.

As part of the planning controls on land uses within the City Centre, a new activity group will be included in the planning scheme being 'Centre Activities Group' (CAG). This activity group will include a range of uses considered compatible with and well suited to the City Centre. As the City Centre is intended to be inherently mixed use, there should also be enough flexibility in the level of assessment to allow a series of uses to interchange without the impost of having to lodge a fresh development

application for what are essentially compatible uses. Any impacts resulting from the change of use are essentially negligible, non-existent or can be dealt with via other legislative processes. The use of the CAG within the table of assessment will allow different commercial activities to interchange without the need for a Development Application.

This will be dependent upon the intent of the precinct to determine land uses that are compatible and complementary as not all uses will be compatible in all areas. For instance, while night clubs may be acceptable in the city core where a range of entertainment related uses already exist, this use may not be compatible in areas containing predominantly residential uses.

The notion of a range of complementary and compatible uses being included in one activity group is particularly applicable for ground floor tenancies of mixed use buildings where for instance a shop is replaced by a restaurant. No building work besides tenancy fit out would generally be required and the appearance of the building is not affected. Therefore in this instance, a development approval should not be required, provided the use is in the right precinct and where outdoor dining and liquor licensing would generally be approved.

Land use will be determined through the City Centre zoning and precinct map, which will be located in Schedule 2 of the new planning scheme. This map supports the neighbourhood structure. Figure 4 shows the precinct plan for the City Centre.

The five precincts, their intents and how they are interrelated to form a unified City Centre are set out as follows.

Precinct 1 - City core

The city core is the traditional commercial centre of Mackay. Given its heritage buildings and streetscapes it makes an enormous contribution to the sense of place. It is a very memorable place with a wealth of street based uses - retail, entertainment, cafés and the like, that

activates streets. This existing character and function of the precinct will be retained and enhanced. The city core will contain the broadest mix of land uses containing retail, entertainment, community and social services, offices and business premises, night clubs, bars and pubs, restaurants and cafes which activate streets both night and day. Residential uses will be predominately short term accommodation including, hotels, motels and the like.

Precinct 2 - City mixed use

The city mixed use precinct frames the city core precinct and allows for a broad mix of commercial and residential uses. In a general sense, the city mixed use precinct accommodates both residential mixed use and commercial mixed use developments with active ground floor retail/commercial uses on key active frontage streets. This broad mix of land uses will be encouraged to interface with the rest of the city and fully capitalise on opportunities presented by nearby activity and amenity nodes. Adjacent to the riverfront, development drives the principal east to west linkage via Victoria Street. Uses on the ground floor activate the street frontage on key activation streets. The built form and public realm achieves high quality, modern urban design that builds on Mackay's cityscape.

The precinct has 3 distinct predominant use areas. These specific areas are detailed as follows:

South of Gordon Street - commercial mixed use

Gordon Street is a highly visible road corridor attractive to commercial uses which benefit from high visibility and the movement economy. Therefore, commercial mixed use land uses with varying building heights above 8 storeys along this frontage will predominate this area and recognise its value as a business address rather than a residential address. However, this should not discount the possibility or opportunity for a residential mixed use or short term accommodation development to locate on Gordon Street.

Mixed use commercial extends along Gordon Street from east to west through the City Centre. Buildings are built up the alignment reinforcing this path as a strong physical, ceremonial and commercial path into and through the City Centre.

Gordon Street is recognised as a key pedestrian link between the Special Activity (Civic) precinct, Exhibition/events precinct and the city core precinct.

Development on parts of Alfred Street will be predominantly residential mixed use. These residential areas provide an alternative setting from the waterfront area, and will be of a significantly different scale and intensity. This mixed use area supports a range of residential uses that contribute to both the city and to the local neighbourhoods which they are a part of as noted above.

Caneland Central - commercial mixed use

Caneland Central is obviously a very important part of the city. It generates considerable vehicle movements within the City Centre but is currently poorly connected functionally and physically to the rest of the city. The centre is encouraged to grow towards its edges (Mangrove Road/Matsuura Drive) rather than remain completely internally focused.

The Caneland Central site can accommodate commercial mixed use and short term accommodation activities. Permanent residential activities are avoided.

City living - residential mixed use areas

Residential mixed use areas are located in the northern areas (adjacent to the Pioneer River - both east and west of the city core precinct), north of Gordon Street and on the southern frontages (Alfred Street) of the City Centre.

The northern areas the City Centre will be dominated by more intense residential uses that capitalise on the considerable amenity the Pioneer



Figure 5: MACKAY CITY CENTRE - LAND USE INTENT AREAS WITHIN THE CITY MIXED USE PRECINCT

River offers and support city employment and services. Taller thinner buildings up to a maximum of 50 m AHD make up this residential mixed use area and activate the riverfront.

This riverfront activity, both east and west of the city core and indeed the commercial activity in the city core, will help drive linkages across the waterfront from east to west linking the city core via River Street to Caneland Central shopping centre.

Precinct 3 - Education mixed use

The Education mixed use precinct recognises the future role that existing educational institutions play in the future of the City Centre. The precinct includes the Central Queensland TAFE College (located at the southern gateway to the city) and Saint Patrick's senior high school (located adjacent to the Pioneer River). These educational institutions are a great asset and activity generator within the City Centre. This precinct will facilitate the growth and expansion of these education facilities encouraging similar and complimentary uses within the precinct.

Precinct 4 - Exhibition/events

The exhibition/events precinct contains the Mackay showground. The Mackay showground, located on the western frontage of the City Centre, is the regional exhibition, events and entertainment space that caters for a number of large scale events, exhibitions and sports, and is therefore a very important part of the City Centre.

Significant investment in upgrading the facilities at the Mackay showground will happen over the next 10+ years. Therefore it is important to strengthen the linkages and relationship between the showground and the rest of the city. As the showground is situated at the western gateway to the City Centre, it is important to encourage any development on the site to better interface with the city's western gateway that establishes a memorable sense of arrival into the city.

The nexus between the Mackay showground and the City Centre will continue to strengthen over time as more supporting and complimenting land uses/activities such as short term accommodation, commercial,

recreation and entertainment, establish within the city - excellent examples can be found in Brisbane and Melbourne.

Precinct 5 - Special activity (civic)

The Special activity (civic) precinct covers the "civic precinct" (includes the Council Administration Building, Artspace, Senior Citizens Hall, Mackay City Library, Mackay Entertainment and Convention Centre (MECC), Jubilee Park and other associated park space) and the Memorial Pool site. It is expected that similar council and community uses will continue to exist on these sites. Development complements, respects, maintains and positively contributes to the memorial significance, ceremonial functionality and park setting of Jubilee Park.

Longer term, the Memorial pool site may have further opportunities for a landmark development given its western gateway location and the large under-utilised open space area between the pool facilities and Gordon Street. Any future re-development of the site should consider the incorporation of the pool facilities.

Other areas not identified as a precinct

Riverfront open space (Open space zone)

The frontage of the Pioneer River (Carlyle Street to Caneland Central) is proposed to be zoned Open Space. The predominant use within the riverfront open space area is outdoor recreation activities and open space. Limited built form for retail and community uses complement the prevailing recreation and open space use.

Built structures and vegetation are designed and located to provide attractive vistas and, where possible, visual connections between the City Centre, the Pioneer River and landscape elements north of the Pioneer River.

Low impact industry zone

On the eastern fringe of the city is the existing services/light industry area. This area plays an important function providing for a range of service industry and low impact industry uses that are required in the day to day life of a city and are generally compatible. This area is to be retained, however areas close to the river may be redeveloped over time for residential uses.

The built form within this low impact industrial area will differ from other industrial areas across the greater Mackay urban area where buildings will resemble more of a city/main street character and built form. Other uses that require larger showroom/warehouse style spaces are encouraged in this area.

Mixed use zone

There are two areas in the eastern end of the City Centre zoned mixed use located north of Victoria Street (along the Pioneer River) and south of Gordon Street.

The northern area primarily accommodates residential or short term accommodation uses complemented by retail, food and drink and entertainment uses at ground/riverbank level. The built form and public realm in this area achieves good urban design; respects the riverfront location addressing the Pioneer River and River Street; and allows for a mix of active and passive ephemeral and/or permanent activities. A high quality, generous and accessible pedestrian boardwalk is located on the riverside of buildings, that continues the Bluewater Trail and provides a pleasant and memorable pedestrian link.

The southern area accommodates a broader mix of commercial or residential uses with a more predominant residential use east of Tennyson Street. The built form and public realm in this area achieves good urban design and integrates with the surrounding urban form.

06



City form

“We have the opportunity of forming our new city into an imageable landscape: visible, coherent, and clear. It will require a new attitude on the part of the city dweller, and a physical reshaping of their domain into forms which entrance the eye, which can stand as symbols for urban life.”

Kevin Lynch –The Image of the City 1960

Strategy

The built form strategy for the City Centre is to achieve a more unified built form character that contributes to the unique character of the city. This can be achieved by considering the existing built form character, response to Mackay’s climate and encouraging a high modern standard of design outcomes. As a result, a series of building typologies have been proposed (refer to Appendix 2).

Mackay City Centre has a wealth of heritage and character buildings within the city core which not only contribute to, but essentially create, the strong sense of place experienced in the city core defined by River, Gordon, Gregory and Brisbane Streets. These simple buildings define the street and create very pleasant pedestrian spaces. They contain a range of shops, cafes, restaurants, bars and other commercial/ administrative services which activate the streets making the city a vibrant space both day and night.

Outside the city core, this built form character becomes scattered and less unified, but nevertheless is still present. Newer city buildings have emerged, which have started to establish a modern built form character and cityscape within the City Centre and reinforce its role as the principal centre.

Therefore, the built form character strategy within the City Centre is to:

- insist traditional built character elements in the city core are applied in building design to complement the existing built form character to

better unite old with new

- outside of the city core, buildings incorporate good modern design, with the option to incorporate traditional built form character elements. Victoria Street is one example where modern design can incorporate some traditional built form elements that extend the form of the city core along the western length of this street.

Principles

Built form within the City Centre will be developed around the following principles:

- Simplicity and flexibility – simplicity in building form and flexibility with respect to accommodating a range of uses over its life time
- Reinforce streets – creating tight streetscapes and reinforcing the public realm. Buildings define the public realm delineating public from private
- Respect heritage – heritage and character buildings are retained as integral elements of the streetscape and as the essential character of the city. Redevelopment of these areas respect the character and rhythm of streetscape
- Preserve views – strong views out of the city are generated by the topography of the locality and the orientation of the grid. Views out of the city are respected by individual developments
- Incentivise development – development needs to be encouraged to develop in certain areas in preference to others in order to maximise public expenditure on infrastructure and public realm. Incentives need to be developed also for the retention and redevelopment of heritage and character buildings
- Thinner buildings – as a response to Mackay’s tropical climate, thinner buildings which encourage cross ventilation and access to breezes

City image

All new development within the city reinforces the role the City Centre plays economically in the region as well as supporting the centre as a place to visit, work, live and socialise. The Mackay City Centre should be the principal centre economically, visually, culturally, and socially.

There have been some recent developments that promote Mackay’s role and image as the principal centre in the region. These projects include commercial, residential and community uses.

There is considerable pressure and interest for further redevelopment along the Pioneer River riverfront, which has considerable amenity for residential uses given its outlook, location and range of services and activities in close proximity. Council has foreseen this development pressure and have been proactive in developing a range of activity nodes along the riverfront connected by the Bluewater Trail. Given this pressure for redevelopment and the investment made in the public realm in this locality, it is logical to facilitate development in this locality, provided that development contributes to the image of the city and the riverscape.

The mixed use land use approach promotes more flexibility allowing a broader mix of uses across the city. Cities and in particular city centres are mixed use by nature – an eclectic mix of uses. Built forms promote this mix encouraging a range of uses particularly on the ground floor along key movement streets.

As the precinct plan sets out aggregations of like land uses, it will also assist in detailing built form solutions. A frontages, plan as shown in Figure 8, will also assist in detailing built form solutions. The frontages plan notes where buildings will be required to be built to the street and where weather protection is to be extend over the public footpaths.

Building heights

In general, building height decreases with distance from the Pioneer River as shown in Figure 6. This strategy proposes 4 building height areas across the City Centre. This will see more intense development forms in areas along and adjacent to the Pioneer River except the city core. The reasoning behind this approach:

- recognises that development pressure is already present in these locations and needs to be recognised and reflected in controls
- Council has made considerable investment in public realm initiatives along the Pioneer River riverfront. New development adjoining the riverfront will be best placed to capitalise on this investment and will contribute to the ongoing activation of the riverfront
- given the size of the city it is not possible for council to upgrade infrastructure and other public realm elements simultaneously across the entire city. The building heights plan is essentially a proxy for the staging of development. Encouraging growth and change in some areas and discouraging it in others. This will then allow a better match between public and private spending on development.

It is recommended that minimum building heights be set in addition to maximum building heights in order to maximise development in the City Centre and achieve the intended built form outcomes in particular areas within the city. This will greatly assist in alleviating the accommodation shortage (both short term and permanent) in the region and achieve a compact, consolidated and sustainable urban environment within the city.

The following principles need to be backed by further policy development on issues such as car parking and out of sequence development as further incentives/disincentives for development are costed to ensure their efficiency as control measures.

As the City Centre continues to collect highrise buildings, the emerging skyline will become more and more visible from the many view points and vistas in the surrounding urban area. This visual attraction is what often draws people into the city as it creates a sense of curiosity, wonder and excitement.

Building height transitions in intensity across the City Centre as follows:

High-rise buildings

High-rise buildings are located in 2 main areas north of Gordon Street/ Victoria Street (west and east of the city core precinct respectively) that primarily facilitates the establishment of the City Centre's high density residential uses and utilises the scenic amenity offered by the Pioneer River. It is intended that buildings in these areas have a maximum building height of up to 50m AHD.

Allowing building heights to exceed 50m AHD will require further discussion with the Mackay Airport regarding the Obstacle Limitation Surface (OLS).

However, as the City Centre continues to progress, develop and mature over time, building heights exceeding 50m AHD will become an inevitability. The geographic position of the City Centre provides a higher likelihood for taller buildings above 50m AHD due to the direction of the main runway (running southeast-northwest) and flight paths of commercial airlines (generally over land north of the Pioneer River) - meaning the City Centre does not sit under, and is clear of the main flight path.

Medium-rise buildings

Medium-rise buildings are located in various areas throughout the city centre in order to:

- respect and not visually dominate heritage value buildings in the city core;
- on the Caneland Central shopping centre site;
- provide a built form transition between high-rise buildings adjacent to the Pioneer River and low-rise buildings south of Alfred Street;
- it is intended that building heights are up to 8 storeys.

Building heights in the city core can have a maximum height of 8 storeys. Towers above the podium are setback to:

- highlight facades, both new and character/heritage, to ensure taller buildings do not dominate or detract from the character, human scale and value of these important heritage buildings;
- maintain the open look and feel of the city core and Victoria Street.

A building height of up to 10 storeys may be achieved within the city core precinct on:

- prominent sites (at street intersections) where there is minimal impact to heritage buildings and the built form presents higher quality architecture and design
- sites located on the periphery of the precinct where there is minimal impact to heritage buildings. This will achieve a good height transition down to 8 storeys in the city core.

Medium-rise development on sites with heritage buildings listed on the local heritage register must be accompanied by a Heritage Management Plan at the development application stage. High-rise development above 4 storeys does not occur on state heritage listed buildings/sites.

Low-rise buildings

Low-rise buildings are located in the southern (south of Alfred Street) and eastern (east of Carlyle Street) frontages of the city in order to provide a built form transition between higher intensity development in the city centre and low intensity urban residential areas to the south and east of Alfred and Shakespeare Streets. It is intended that buildings heights are up to 3 or 4 storeys.

Landmark buildings

Landmark buildings fulfil one or more of the following cityscape functions:

- completing and framing vistas and views
- creating gateways and entries
- highlight a prominent city intersection
- increase legibility and add to the sense of place
- provide a sense of scale at open spaces.

Key landmark building sites are located around the City Centre, primarily in association with the major movement corridors of Gordon Victoria, and Sydney Streets and allow a greater building height provided the building reflects a higher standard of architectural design. Landmark buildings are created through measures such as a change of scale, materials and or architectural treatment. Buildings should respond to the local context and be characterised by high quality design that highlights a prominent city intersection making a positive contribution to the street grid layout and urban form of the city centre.

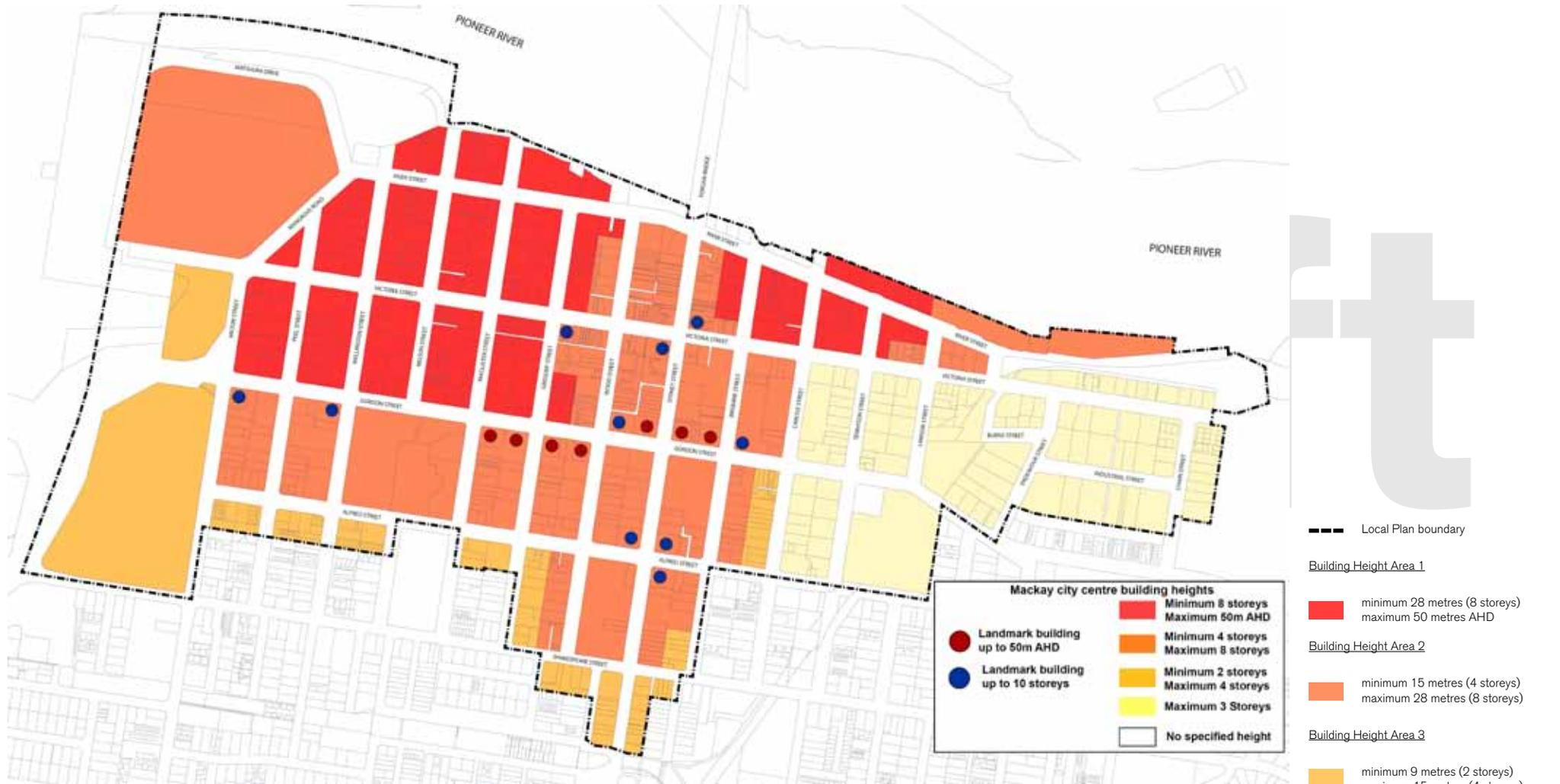


Figure 6: MACKAY CITY CENTRE BUILDING HEIGHTS

Frontage and form

It is a basic principle of good streetscapes that buildings must address and overlook streets and public spaces. Building form outcomes are generally a result of a mix of planning controls, lot sizes, market forces and the like. Over the past 20–30 years some of those outcomes have resulted in undesirable streetscape outcomes where buildings push back from the street rather than engaging with the street. The predominant lot size and shape (20m x 50m) impacts upon this relationship too, as buildings often run perpendicular to the street overlooking side boundaries rather than addressing the street. This results in long thin buildings which do not relate to the street; creates privacy issues as residential units look side to side; and leaves little in the way of useable private open space on the lot. This outcome is undesirable in relation to good city form and contrary to Crime Prevention through Environmental Design (CPTED) principles as shown in Figure 7.

In order to achieve better built form outcomes, it will be necessary to require buildings to push forward to the street and away from rear boundaries. Buildings then address and overlook streets and public spaces rather than side boundaries. This frames the public realm and adds visual interest within the street.

For larger development proposals it may be necessary to amalgamate sites to achieve a sensible development form that has a high yield and overlooks the street. Given the scale of development proposed, that is not unreasonable.

Allowing buildings to reorientate towards the street will also allow for opportunities for private open space at the rear of the site behind buildings (whether that be on podiums or on ground).

Principles

In general, buildings should adhere to the following principles for frontage and form:

- All buildings address and overlook streets and public spaces
- Buildings have a distinct bottom, middle and roof. Upper levels of buildings are expressed differently, while lower floors respond to the street geometry and public realm
- The scale and height of buildings define the street and public realm. This will assist in establishing the hierarchy of public spaces and streets, promoting the legibility of the development. Built form reinforces the structure of the street grid system through aligning building fronts parallel to the streets.
- Where buildings face public realm areas including streets, parks and walkways, significant overlooking and surveillance opportunities must be incorporated with positive CPTED practice. Where public use walkways are incorporated between or within sites, the buildings must front activated zones to these walkways in accordance with positive CPTED practice.
- Buildings on corners address both street frontages. Corners are expressed as stronger visual elements promoting legibility of the urban form. Building entries on corners are an effective way of achieving architectural expression. Mackay has strong architectural tradition of building entries on corners.
- Building design and set out takes into consideration views, aspect and privacy of those residential developments adjoining. This is particularly important in dealing with taller tower elements. As a minimum, 18 metres is maintained between towers (balcony to balcony) where there is a potential for overlooking to occur. This setback will ensure that an appropriate distance is maintained between tower elements that allows for privacy to be maintained as well as ventilation and solar access.

- Building frontages treatment is a key element in setting the appropriate relationship of buildings to surrounding streets and public spaces and creating opportunities for active frontages.
- As shown in Figure 7, some streets have mandatory zero front setbacks. Zero setbacks at lower levels allow for perimeter forms of development whilst maintaining a human scale to the centre.



Figure 7: BUILDING FRONTAGE ANALYSIS

Building frontages

It is highly desirable to create active use frontages to promote street life and activity and to ensure there is adequate surveillance of the street day and night.

Buildings that are located on active use frontages and which are required to be built to the front alignment have a range of land uses and activities that promote street life and activity. To facilitate the use and reuse of ground floor areas for a range of land uses over time, it is stipulated that there be a minimum height of 4.5m (floor to floor) as shown in Figure 8.

Enclosed retail formats such as internal malls, are generally not supported because they:

- connect poorly to the surrounding area
- do not have streets for social interaction
- do not provide adequate surveillance
- do not facilitate a mix of uses that are usually associated with street based centres.

This format is not robust and does not allow incremental and incidental change over time.

This strategy identifies 5 frontage types being:

- Key active frontage - city core precinct/Victoria Street
- Key active frontage - city centre frame
- Secondary active frontage
- Low impact industry frontage
- Low intensity frontage

The building typologies associated with each frontage type are contained in Appendix 2.

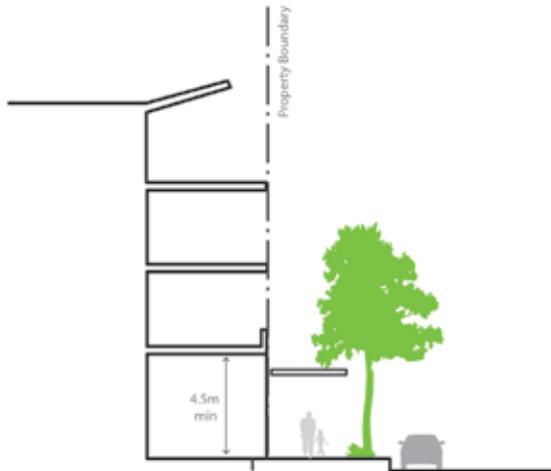


Figure 8: ACTIVE FRONTAGES

Key active frontage - city core precinct/Victoria Street

"Key active frontage - city core precinct/Victoria Street" reflects the unique frontage type found in the city core, which is intended to be extended west along Victoria Street. The ground floor of buildings accommodate high pedestrian activity uses such as retail, entertainment or community activities, present an interesting façade with extensive use of windows and doors. Long single use frontages should be avoided. Large format retail uses such as supermarkets or discount department stores and large enclosed car park structures should be sleeved by smaller retail/commercial and similar uses along active street frontages.

Buildings built to the front alignment provide footpath awnings to achieve a pleasant, all weather protection environment for pedestrians, which will ultimately increase pedestrian movement throughout the city core and west along Victoria Street.

"Key active frontage - city core precinct/Victoria Street" streets include:

Victoria Street

- Key link west between the city core and Caneland Central shopping centre
- Victoria Street has a well established verdant character and amenity in the city core
- Footpath dining and retail are encouraged, particularly in the city core precinct
- Important to continue the built form and streetscape character and rhythm of the city core west along Victoria Street

Wood and Sydney Streets (north of Gordon Street)

- The existing built form within these two streets already address the street frontage
- Wood Street has a well established verdant character and amenity in the city core. Footpath dining and retail are encouraged, particularly in the city core precinct.
- Sydney Street is a major arterial route through the city north accessing the Forgan Bridge. Footpath dining and retail are not desirable due to the high level of through traffic

Gregory Street (between Victoria Street and River Street)

- Ensures towers are adequately setback from the street frontage to protect the view north along Gregory Street to Saint Patrick's church.

Key active frontage - City centre frame

For sites containing the "key active frontage - city centre frame", the ground floor of buildings accommodate high pedestrian activity uses such as retail, entertainment or community activities, and present an interesting façade with extensive use of windows and doors. Long single use frontages should be avoided. Large format retail uses such

as supermarkets or discount department stores and large enclosed car park structures should be sleeved by smaller retail/commercial and similar uses along active street frontages.

Buildings built to the front alignment provide footpath awnings to achieve a pleasant, all weather protection environment for pedestrians, which will ultimately increase pedestrian movement in key streets and between the established activity/amenity nodes.

The "key active frontage - city centre frame" has also been applied to sites on River Street (east of Carlyle Street) with direct frontage/ access to the Pioneer River. Development on these sites will be required to provide a continuous active public space on the riverside of buildings featuring retail, food and drink outlets and entertainment activities, which will form part of the Bluewater Trail experience.

"key active frontage - city centre frame" streets include:

Gordon Street

- A key link between the city core, "civic precinct" and the Mackay showground
- Commercial address of the city and major arterial route through the city
- Footpath dining and retail are not desirable due to the high level of through traffic

River Street (east and west of the City Core)

- A key link between the city core and Caneland Central shopping centre with high access to Pioneer River and adjacent Bluewater Trail
- Alternative vehicular route through the city to access the Forgan Bridge
- A high amenity residential address close to the Pioneer River

Wood and Sydney Streets (south of Gordon Street)

- Key link between the city core and the Central Queensland TAFE campus
- Sydney Street is a major arterial route through the city south

accessing the southern suburbs and further on to the Mackay Airport

Alfred Street

- Represents the link between the Central Queensland TAFE campus and the MECC

Secondary active frontage

The "secondary active frontage" type is applied to streets that have a lower active environment. Typically, buildings do not have podium levels and are not required to be built to the alignment, but however are still required to:

- provide an interesting building facade and address the street frontage by providing windows, doors, balconies and the like; and
- provide a combination of shade vegetation and shelter on the footpath for the full frontage of sites.

"Secondary active frontage" applies to parts of Peel, Wellington, Nelson, Macalister, Gregory, River, Alfred, Brisbane, Carlyle, Tennyson, Victoria (east) and Gordon (east) Streets.

Low impact industry frontage

The "low impact industry frontage" mostly applies to low impact industrial sites with frontage to Victoria and Gordon Streets. Buildings are built to the street alignment and will require a footpath awning to these streets to achieve a pleasant, all weather protection environment for pedestrians, which will ultimately increase pedestrian movement between the light industrial area and the city core.

"Low impact industry frontage" streets include:

Victoria and Gordon Streets

- Victoria Street links the city core and the light industrial area
- Important to ensure buildings are built to the street alignment on both streets

Low intensity frontage

The "low intensity frontage" type applies to all other sections of streets throughout the city that do not have any of the previous 4 street frontage types applied to it. This frontage type occurs generally in residential areas on the southern and eastern frontages of the City Centre where buildings are not required to be built to the alignment or provide a footpath awnings. Footpaths are shaded by vegetation.



Sydney Street - Town Hall in background

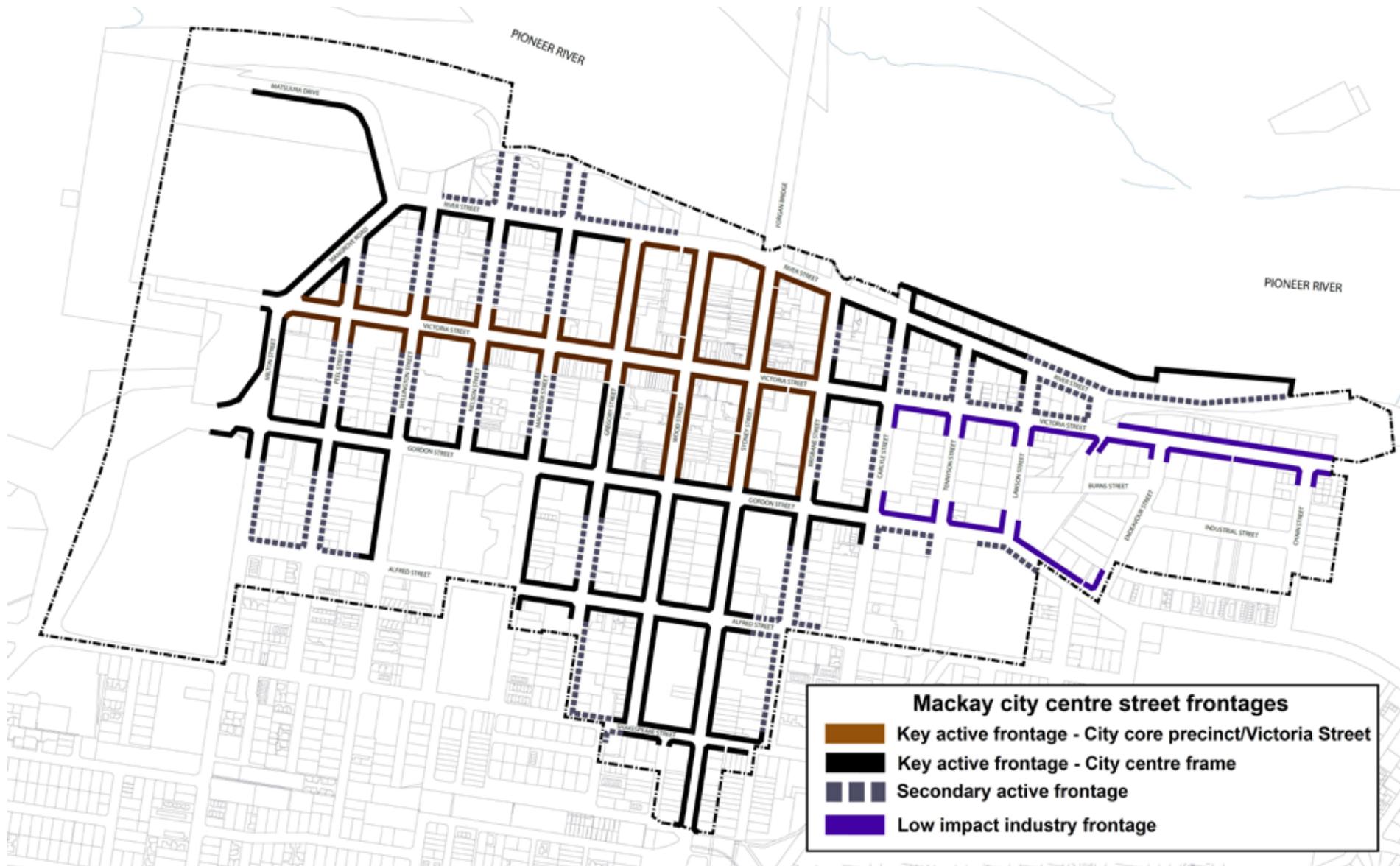


Figure 9: MACKAY CITY CENTRE STREET FRONTAGES

Built form character elements

Character is a complex issue informed by history, economic trends, land use, building function, and lot size amongst a host of other factors. Mackay is no different. Influences on Mackay's architecture extend from "Gothic/Federation" to "Art Deco" to modern. All these elements have left their mark on the character of the city. These built form character elements include: corners, recessed and sheltered balconies, colonnades, symmetry and building entries, continuous streetscape facades and parapets, windows, roofs, materials, awnings and small frontages.

The following section puts some meaning and context into the elements

that make up the character of the city. These elements are highlighted to show the range of building responses the city contains. This section is not intended to be an exhaustive examination of building character but rather highlight some of the features inherent in Mackay's building forms.

New development should not simply replicate existing building forms in the City Centre. New building design should respond to the context, climate and setting of the city, including elements such as built form, culture, topography and the like, that adds prominence, richness, texture and interest to the cityscape of Mackay. The following built form

elements set out some of those elements which can be reinterpreted and included in future developments within the city.

The building studies which are included in the following section include some of these elements as an example of appropriate built form responses.



Commercial Building - Cnr Sydney and Victoria Streets



Australian Hotel - Cnr Wood and Victoria Streets



Taylors Hotel - Cnr Wood and Alfred Streets

Corners

Corners are strongly expressed elements which allow buildings to turn corners and address both street frontages. Corners are chamfered and contain building entries. Chamfered corners extend through the height of the façade generally detailed as stronger visual elements and is genuinely a Mackay built form detail. This quirk in building technique does not follow cadastral boundaries. This well established built form character has been included in subsequent building controls. It is recommended buildings on all corners throughout the majority of the City Centre (with the exception of southern fringes of the city) be required to provide a corner building chamfer that extends for the full height of the building facade. The corner at ground level will be required to be truncated and dedicated as road reserve.



Australian Hotel - Wood Street



Wide Bay Australia House - Victoria Street



McGuire's Hotel - Wood Street

Recessed and sheltered balconies

Balconies are strong facade elements and are either recessed into the facade or arranged as strong horizontal elements projecting from main facades with continuous roof forms providing deep shade and shelter. Recessed balconies tended to punctuate the facade providing articulation and contain individual roof elements extending from the facade. It is recommended this character element be incorporated in building design within the city core and encouraged in other areas of the City Centre to provide articulation to building facades.



Ambassador Hotel - Sydney Street



Wilkinsons Hotel - Victoria Street



The Austral Hotel - Victoria Street

Colonnades

Colonnades allow buildings to extend over streets providing living space and verandahs to extend over footpaths. This provides deep shelter and shade over footpaths for year round weather protection. This may not be practical under the current legislative regime as it will require road to be closed in strata to allow the building to project into the road reserve. It is recommended that this treatment only be incorporated into buildings in the city core as a method of achieving continuous awnings and shaded pedestrian areas. It should not include any habitable rooms or floor space.



Former Post Office - River Street



The Ambassador Hotel - Sydney Street



Old Town Hall - Sydney Street

Symmetry and building entries

Buildings show a high degree of symmetry in facades with accentuated design elements located centrally on the facade, highlighting main building entries. Entries to the building are legible without the need for elaborate signage. It is recommended this character element be incorporated in building design within the city core to continue west along Victoria Street from the city core and encouraged in other areas of the City Centre. Building entries should form an important design element in all new development. Signage should be minimised.



Wood Street looking south



Wood Street



Victoria Street looking east

Streetscapes and parapets

Parapets provide a rich diversity to the streetscape. They tend to be highly varied and break up the line of the second storey into a varied parapet line rather than a simple straight line. Facades represent underlying lot configurations and provide a rhythm and syncopation to the street that can only be appreciated at the pedestrian scale. Buildings are also built to the street alignment reinforcing public/private relationships, contributing to the variety and richness of the façade detail in the city core. It is recommended this element be incorporated in building design within the city core continuing west along Victoria Street from the city core, in Gordon Street and encouraged in other areas of the City Centre.



Residential units in Peel Street



T&G Building - Cnr Wood and Victoria Streets



Catholic Presbytery - River Street

Windows

Windows fill a high proportion of facades. They tend to be taller than wider and may occur as a bay window with their own separate awning creating articulation in the facade. Windows are casements and may occur as singular elements or in banks of multiple windows. It is recommended this element be incorporated in building design within the city core and encouraged to continue along the western extension of Victoria Street from the city core and Gordon Street.



TAFE Building - Alfred Street



RSL Memorial Building - Sydney Street



Sydney Street Markets



Nelsons - Nelson Street

Roofs

Roofs are not easily detailed and there is no consistent theme or response. Older "federation" buildings tend to have hipped and gable roofs whilst in "art deco" and modernist buildings roofs tend to be non-existent as distinctive elements reflecting a trend towards style over climatic response. More modern buildings tend to use skillion roofs and have more connection in function with "federation" buildings with respect to response to climate and provision of shade. It is recommended that skillion roofs forms be encouraged for new developments.



Mackay Central School - Alfred Street



Crown apartments - River Street



Lanai apartments - River Street



T & G building - Victoria Street

Materials

Buildings tend to be constructed of heavy weight brick or rendered masonry. This is particularly evident as the dominant form of building base. Buildings may or may not introduce lighter weight elements on upper levels. It is recommended buildings within the city core and along other active streets maintain the heavier weight podiums with progressively lighter weight materials incorporated into facades.



Hotel Mackay - Cnr Victoria and Wellington Streets



Palace Hotel - Corner of Sydney and Victoria Streets



DGL building - Victoria Street

Awnings

Awnings project over footpaths providing both shade and shelter. They occur where pedestrian movement is greatest and extend round corners which assists in addressing corners and expressing them as strong elements of the streetscape. Awnings are either cantilevered or where extending for greater distance over the public realm may occur as part of a colonnade. It is recommended that awnings are mandatory in all new developments, especially on active streets particularly within the city core and the full extent of Victoria Street.

Response to climate

Buildings should represent a genuine response to their setting, climate and context. Buildings must say something about Mackay and not be buildings typical of any coastal location.

Buildings reflect our lifestyle values of casual, relaxed living and incorporate outdoor living and entertaining areas both at ground level and through the inclusion of generous balconies attached to living rooms.

Good buildings respond to the climate by capturing cooling breezes, providing shade during the warmer months and capturing the sun's warmth in the cooler months while maintaining high levels of natural light throughout the year.

Tropical building responses have an architecture of light and shade with articulated and textured facades that incorporate a low proportion of solid to a high proportion of void by using any or all of the following elements:

- Wide verandahs, awnings, balconies, eaves and roof overhangs
- Recesses and moveable screens, awnings and shutters
- Cantilevered wall and roof elements
- Controllable shading and wet weather protection
- Outdoor terraces and generous balconies and verandah
- Windows which are sized, positioned and protected appropriately for their orientation

Buildings should be naturally ventilated and consider the following in design development:

- High ceilings, atriums, open floor plans and transom windows
- Orientate buildings to maximise their exposure to the cooling prevailing wind direction

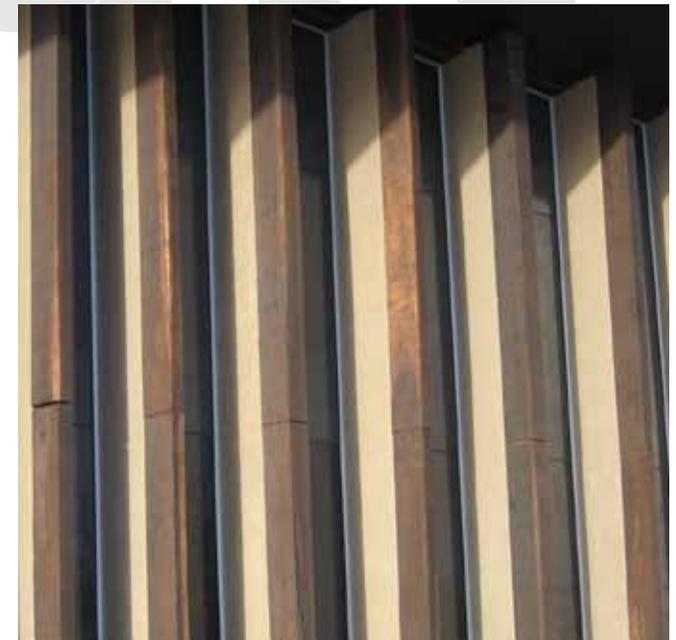
- Design buildings with a relatively narrow plan form across the prevailing wind direction, to facilitate the passage of air through the building
- Windows facing north and east are suitably shielded to exclude the summer sun while permitting the entry of the winter sun
- Windows and balconies facing west are provided with shade and shielded from the afternoon sun
- Windows and balconies facing south are generous to take advantage of the cooling prevailing breezes
- Locate wall openings to facilitate the passage of air through the building
- Use water features in, or near a building to create a sense of coolness
- Use vegetation to modify the external wind direction, to enhance ventilation and cool incoming air
- Utilise ceiling fans where appropriate to minimise the need for refrigerated air conditioning

Buildings are orientated to promote seasonal solar gain and loss. This of course needs to take into consideration major site views and vistas. Taller buildings have a podium and tower arrangement. This allows the podium component to align to the street frontage with the tower orientating for climate, views, aspect and privacy.

Weather protection and sun shading (including eaves, shades and overhangs) is incorporated into façades and roof forms to reduce direct solar heat and rain protection appropriate to each façade orientation. The inclusion of these elements should not be penalised through undue restriction in development controls.



Lanai Apartment building



Mackay Entertainment and Convention Centre

Building typologies

The following section details the language of the city as expressed through its built form. As noted in previous sections, land use within the city is intended to be very flexible reflecting the mixed use nature of the City Centre.

The building form however needs to express, reflect and exhibit the intensity and prominence of the City Centre in terms of height and the way buildings orientate towards and address streets and public spaces.

The building typologies set out the built form response throughout the City Centre and vary according to the corresponding frontage type and building height. There are 5 general building typologies as shown in Appendix 2.

The 5 building typologies respond to a number of elements including building height, frontage activation, street type and precinct.

Typology 1 "key active frontage - city core precinct/Victoria Street"

Typology 2 "key active frontage - city centre frame"

Typology 3 "secondary active frontage"

Typology 4 "low impact industry frontage"

Typology 5 "low intensity frontage"

The building typologies are essentially envelopes - they are not buildings themselves. They define the space intended to be occupied by the building/s. Each building typology does not represent a resolved building design. This is for the individual architect and designer to propose. The envelopes describes the relationship buildings should have with the street, adjoining sites and other adjoining/nearby buildings.

Included with the 3D envelopes are "building area plans" and tables of development standards which set out built form controls for each building typology.

The envelopes define setbacks and street relationships. The articulation zone which skins the envelopes facing the public realm represents a space where those elements such as verandahs, awnings, balconies, eaves and roof overhangs, cantilevered wall and roof elements may extend into without penalty.

How to use the building typologies

To determine what typology is used where, a combination of the relevant building height (shown in Figure 6) and street frontage type (shown in Figure 9) will need to be ascertained and matched to the building typologies shown in Appendix 2.

Example 1

For a building midway on Gregory Street, between Alfred and Gordon Streets, the building typology will be Type 3 - "secondary active frontage". The minimum building height is 15 metres (4 storeys) and the maximum building height is 28 metres (8 storeys) with a footpath awning required (attached or freestanding).

Example 2

For a building on the north east corner of Wood and Victoria Street, the building typology will be Type 1 - "key active frontage - city core precinct/Victoria Street". The minimum building height is 15 metres (4 storeys) and the maximum building height is 28 metres (8 storeys) in height with a footpath awning required.

Please note, if the site is identified as a State heritage place, the maximum building height is 15 metres (4 storeys).

Example 3

For development the southwest corner of Alfred and Nelson Streets, the building typology will be Type 5 - "low intensity frontage". The minimum building height is 9 metres (2 storeys) and the maximum building height is 15 metres (4 storeys) with shade trees on the footpath instead of an awning.

Example 4

For a building on the southwest corner of River and Macalister Streets, the building typology will be Type 2 - "key active frontage - city centre frame". The minimum building height is 28 metres (8 storeys) and the maximum building height is 50m AHD with a footpath awning required.

Example 5

For a building on the southwest corner of Victoria and Sydney Streets, the building typology will be Type 1 - "key active frontage - city core/Victoria Street". The minimum building height is 15 metres (4 storeys) and the maximum building height is 28 metres (8 storeys) with a footpath awning required.

However, Figure 6 - Mackay City Centre Building Heights, identifies this site as a "landmark building" site. The development is therefore allowed a building height of up to 32 metres (10 storeys) provided the building exhibits a higher standard of architectural design. Landmark buildings are created through measures such as a change of scale, materials and or architectural treatment. Buildings should respond to the local context and be characterised by high quality design that highlights this prominent city intersection making a positive contribution to the street grid layout and urban form of the city centre.



Figure 10: PERSPECTIVE ILLUSTRATION OF NELSON STREET LOOKING NORTH FROM GORDON STREET TOWARDS VICTORIA STREET



Figure 11: PERSPECTIVE ILLUSTRATION OF VICTORIA STREET LOOKING EAST FROM NELSON STREET TOWARDS THE CITY CORE



Example of built form in the City Centre

Mackay City Centre Local Area Plan | City Centre Strategy | March 2019

07



City movement

Strategy and principles

The transport network of Mackay is dominated by private car usage. This is typical of many regional areas as a consequence of historic settlement patterns/trends, an often limited public transport service provision/quality, and a lack of real congestion in the road network. The latter results in little demand/desire for motorists to change from a private vehicle mode to other transport modes.

Mackay's transition to a more sustainable city includes reprioritising movement in the city, placing more emphasis on alternate modes of transport including pedestrian and cycle movement, and discouraging the use of private motor vehicles as the predominant choice for movement to, from and within the City Centre.

The objectives for parking, access and mobility in the City Centre are to ensure:

1. Effective use and management of parking across the City Centre, particularly in high activity areas (high value parking) and city core precinct, that:
 - maintains and enhances economic activity
 - facilitates future growth and economic vitality of the City Centre:
 - balances the convenience availability and access to parking alongside economic viability
 - balances supply and demand – aligned with the provision of supporting, emerging alternate modes of transport, thus reducing car dependency
 - monitors parking provision and demand that responds to changing parking requirements or needs
 - avoids overspill into neighbouring residential areas
2. The City Centre is convenient, comfortable and safe to access:
 - promote walking and cycling as the priority forms of movement
 - provide legible navigation and orientation tools

- provide safe, comfortable and attractive connections
3. The City Centre is serviced by efficient, reliable and affordable public transport and is conducive to pedestrian and cycling movement:
 - deliver direct and effective public transport connections and facilities
 - encourage the use of sustainable alternatives to car travel.
 4. Develop a parking strategy to retain and effectively regulate short stay parking and designate long stay parking in lower activity streets and at the periphery of the City Centre

The internal movement strategy is aligned to a hierarchy of street types, that reflect wider urban design objectives of character role and function of streets beyond their movement function.

Principles

It is based on the following overarching principles:

- Moving away from hierarchies of standard road types based on traffic flows and/or the number of buildings served
- Prioritising the modes of travel within the City Centre as follows:
 1. Pedestrians
 2. Cyclists
 3. Public transport
 4. Other vehicles
- Recognising the importance of the community function of streets as spaces for social interaction
- Developing street character types on a location-specific basis with reference to both the place and movement functions for each street
- Encouraging innovation with a flexible approach to street layouts. 'One size does not have to fit all'

- The function of the street network should provide for reliable access, passenger transport services and pedestrian and cycle movements into and around the city
- Low vehicle speeds are a primary design objective for some streets within the city. The presence of pedestrians, on-street parking and tight corner radii encourage drivers to reduce their speed. (recommendations for target speeds for specific street types are detailed in the street cross-sections section on pages 47-52)
- A balance is to be achieved between the place and movement function of streets. Streets within the city will have a multitude of functions. Where movement functions of a street conflict with place functions, the place function should take priority.

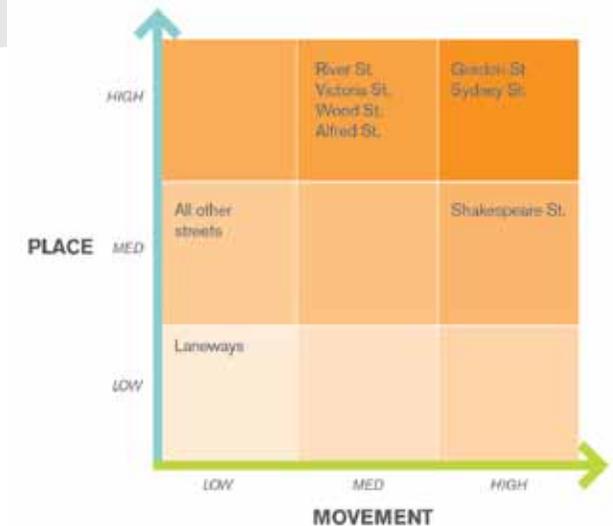


Figure 12: STREET FUNCTION BASED ON PLACE AND MOVEMENT

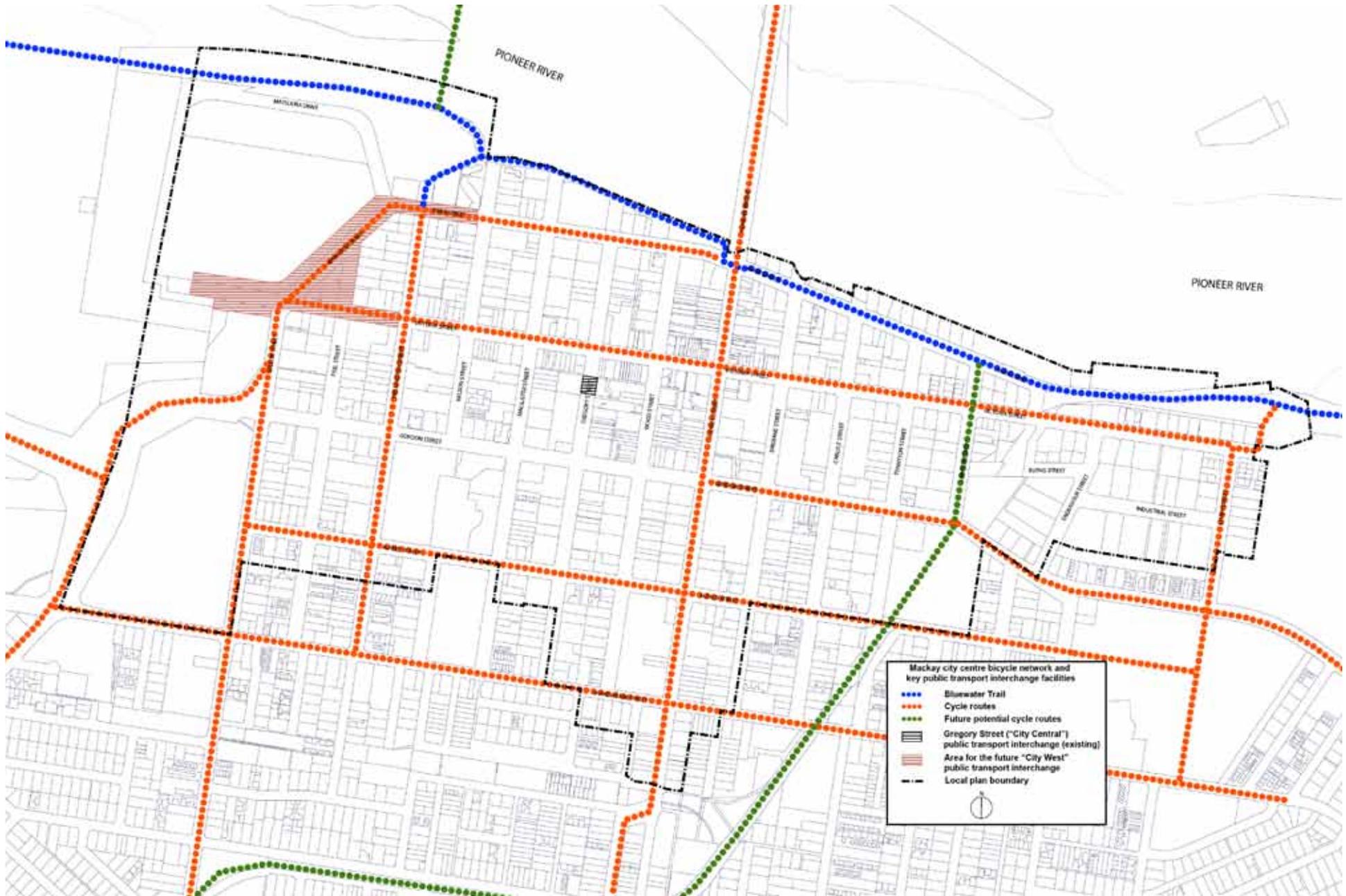


Figure 13: MACKAY CITY CENTRE BICYCLE NETWORK AND KEY PUBLIC TRANSPORT INTERCHANGE FACILITIES

Alternative modes of transport

Given the relatively flat topography of the City Centre, Mackay is an ideal location to be encouraging alternative modes of transport, particularly both cycling and pedestrian movement. Mackay's hot humid climate can however make these forms of transit uncomfortable particularly walking. Mackay however has a history of cycling, it just seems to have been forgotten in recent times.

Pedestrian movement

Walking will be encouraged as the preferred mode for trips within the City Centre. Everything within the City Centre neighbourhood will be within an easy ten minute walk from the city core. Pedestrian movement will be well catered for, with footpaths to be provided along all streets and footpath awnings along key pedestrian movement streets within the City Centre.

Footpaths will be generous, comfortable spaces, protected from the sun and rain by awnings and in lesser trafficked streets with street trees. Formal road crossings will be provided along the preferred journey lines.

Mackay will adopt a policy of shelter and shade. Buildings located north of Alfred Street will be built to the front alignment, containing awnings which extend over the footpath to provide shelter in all weather.

On other streets, street trees will provide shade for pedestrians making pedestrian movement more comfortable on hot, humid days and adding a dimension of richness and delight to the streetscape. Street trees will provide dense canopies that cover footpaths and roadways to create and enclose outdoor rooms. Individual developers will be required to establish the public realm, being landscaping, street furniture and footpath treatment, as per the requirements of the adopted public realm plan.

Cycle movement

In a city with many cars, safety for cyclists is first and foremost achieved by designating street territory for cyclists only.

If the traffic environment appears unsafe, it will be the daredevils only braving the streets on bicycles and cycling will never develop as the mass transportation alternative that it can be. Bike paths are necessary to create the safety needed to develop a bicycle commuter culture. (A people oriented vision for Brisbane - Gehl Architects, 2009)

Mackay, and particularly the City Centre, has had a history of, and obsession with, cycling as illustrated in Figure 14. However, since the dominance, convenience and affordability of the motor vehicle over time, cycling has taken a 'back seat' in terms of how people move around the city. This strategy and the associated Mackay City Centre Parking Strategy looks to turn this around and get the community back into cycling for both commuting and recreation.

The approach to cycle movement in the City Centre is to identify cycling routes within the City Centre. Where the street layout allows, provide dedicated cycle lanes. Where the road layout does not allow for the creation of a dedicated cycle lane, 'share the road' road signs (Figure



Figure 14: BICYCLE PARKING CNR WOOD & VICTORIA STREETS CIRCA 1950



Figure 15: EXAMPLE OF A 'SHARE THE ROAD' CYCLING ROAD SIGNAGE

14) should be installed to increase motorists' awareness and alertness to watch for cyclists on the road.

The Bluewater Trail offers an excellent opportunity to walking and cycling between the City Centre and southern suburbs. The Bluewater Trail can be further strengthened through the introduction and establishment of an open space recreation corridor within the former rail corridor. A centrally located northern link trail across the Pioneer River connecting to northern suburbs via Glenpark Street should be explored to achieve a safe pedestrian and cycle link between the northern suburbs and the City Centre. A northern pedestrian/cycle connection can encourage further opportunities for a recreation trail on the northern bank of the Pioneer River.

To promote cycle movement, end of trip facilities need to be incorporated within all new development. End of trip facilities for pedestrians and cyclists includes secure undercover bicycle storage, showers, toilets, drying/hanging space and lockers. Such facilities are to be provided to a standard consistent with AS2890.3 and the Queensland Development Code (QDC).

Bicycle facility requirements for residential development are:

- residents - to have at least one secure space per dwelling
- visitors -at least 0.25 secure space per dwelling.

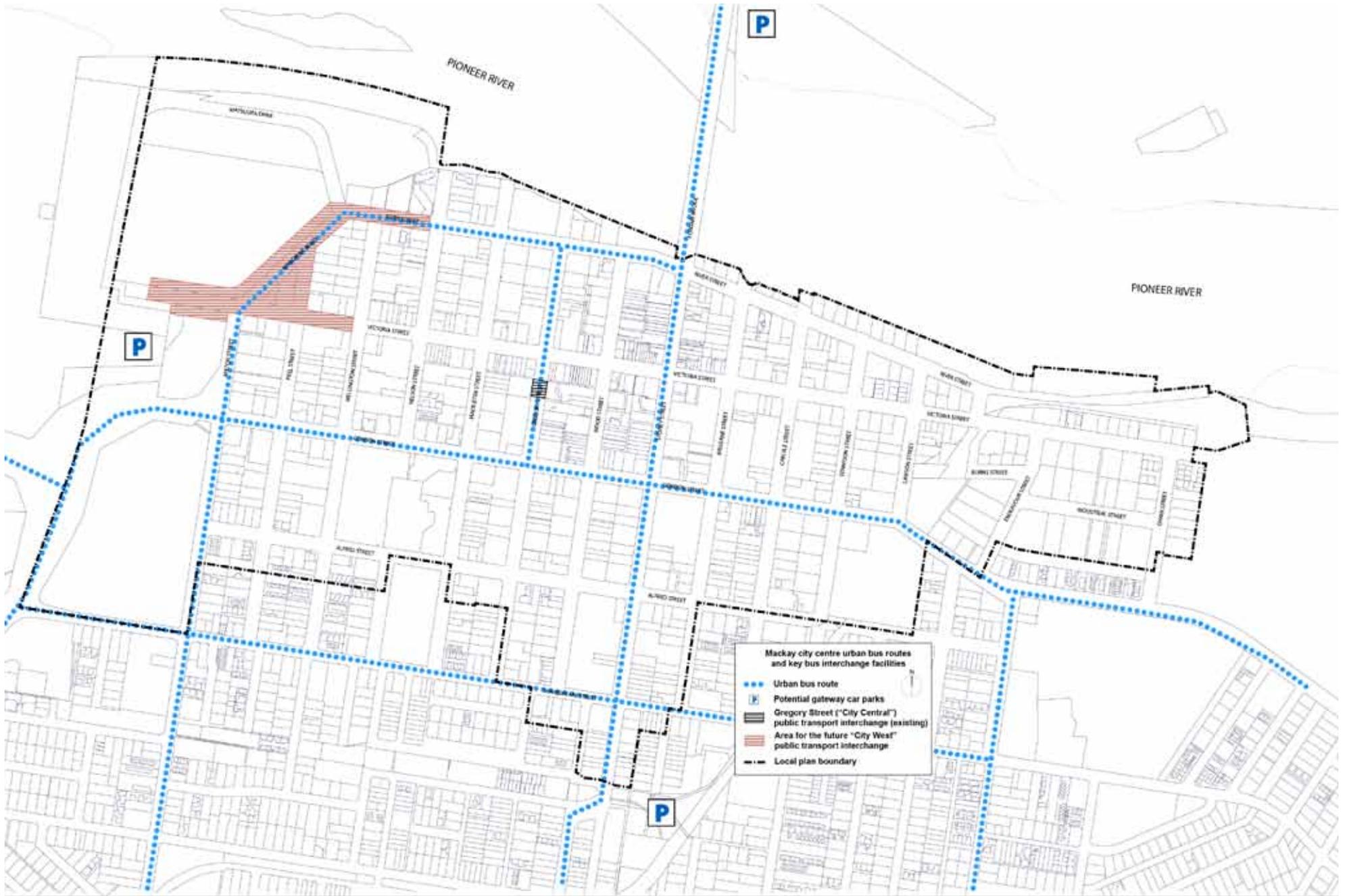


Figure 16: PROPOSED BUS ROUTES AND KEY BUS INTERCHANGE FACILITIES

Bicycle facility requirements for non-residential development are:

- secure bicycle storage for 8 percent of building staff based on one person per 15m² net lettable area (NLA). (Secure bicycle parking involves a bicycle locker or bicycle rail in a locked compound/cage)
- accessible showers at a rate of one shower per 10 bicycle spaces provided or part thereof
- changing facilities adjacent to showers
- secure lockers in changing facilities for 20 percent of building staff (based on one person per 15m² NLA) to cater for walkers, cyclists and other active users
- visitor cycle parking at the rate of one secure rack space per 750m² NLA or part thereof, properly signposted and located adjacent to a major public entrance to the building.

To strengthen bicycle and pedestrian access to the City Centre, particularly from the northern suburbs, consideration should be given to investigating a new pedestrian/cycle bridge across the Pioneer River. This new pedestrian/cycle bridge connects the Bluewater Trail across to Riverside Drive and further onto Gooseponds/Glenpark Street. This link, if constructed, would alleviate the absence of a safe cycle route across the Ron Camm bridge and provide cyclists from the northern suburbs with a safe and convenient journey to work option as opposed to cycling on high traffic roads.

The construction of such a pedestrian/cycle bridge is viewed as a long term joint exercise between Council and the Queensland Government.

DTMR are investigating improvements to pedestrian/cycle connectivity at the intersections of Shakespeare Street/Nebo Road and at the Showground (Gordon Street/Nebo Road/Bruce Highway) and where the Bruce Highway intersects with the Bluewater Trail (southern side of the Ron Camm Bridge) in order to provide safer connectivity between the Ron Camm Bridge cycling route and the City Centre.

Council in conjunction with the Queensland Government, could develop a promotional and educational cycling initiative, (potentially known

as “Mackaycycle”) to encourage residents to cycle to work and cycle recreationally. Such an initiative could provide:

- basic promotional cycling gear (water bottle, tyre repair kit, commuter bags and the like);
- helpful bicycle maintenance and repair workshops;
- information on frequented bicycle commuter routes;
- tips on cycling to work in the rain;
- promotion of the health, financial and environmental benefits of cycling;
- organised bunch/training rides and social outings (cycle and coffee);
- regular cycle to work breakfast events; and
- regular street sweeping on popular commuter routes to remove rocks, broken glass and other hazards.

Public transport

The City Centre provides a range of experiences across a broad front. Getting into the City Centre and facilitating movement around its large area is key to the ongoing success of the City Centre as a central, convenient and unified place. Without coherent strategies that tie the City Centre together as a series of neighbourhoods and commercial activity nodes the city will continue to be dominated by private vehicles.

A city circuit bus loop could link all major activity and amenity nodes and potential car parking stations located on the periphery of the City Centre. This city circuit bus service can capitalise on the existing urban bus route within the City Centre and can also supplement existing bus services through additional high frequency local city link services. All bus services and routes must connect activity nodes such as Caneland Central shopping centre, city core, Central Queensland TAFE campus, eastern low impact industrial area, and the Civic Precinct. The majority of the City Centre is within a 400 metres (5 minute) walk of the bus routes.

The City Centre has 2 key public transit interchange facilities. The primary public transport interchanged facility is located on Gregory Street (“City Central” - existing facility). A secondary public transport interchange facility is located on the western side of Caneland Central (rear of the shopping centre). Recent upgrades to the Caneland Central has seen a significant increase in traffic accessing and leaving the shopping centre. This has also increased the time taken for bus services to access and leave the Caneland bus interchange facility resulting in increased operational costs and delays to service routes.

Therefore, to improve the convenience of and accessibility to public transport in the western part of the City Centre, it is proposed to relocate the existing public transport facility. The future “City West” public transport interchange facility is proposed to be located in the vicinity of Victoria Street (west), Mangrove Road, Peel Street (north) and River Street (west) and include the local urban bus route/s, city circuit bus route and may include a taxi rank.

The future “City West” public transport interchange facility is strategically located on the eastern side of Caneland Central:

- to provide convenient connectivity and accessibility for northern and southern bus routes traversing through the City Centre via the City Centre (Gregory Street) public transport interchange facility;
- that supports the long term vision of improving pedestrian connectivity between the city core and Caneland Central; and
- to entice Caneland Central to build out to the Mangrove Road alignment providing an active street frontage and the “front door” of the shopping centre.

Further investigation is to be undertaken and discussions with DTMR to determine the ideal location of the “City West” public transport interchange facility on the eastern side of Caneland Central.

Parking

Parking is a complex issue and requires careful consideration. Car parking can not be considered in isolation and works hand in hand with economic and built form issues amongst a number of others. In this respect car parking will be dealt with in two components being on-street parking and on-site parking.

In general, the approach to parking in the city should reflect:

- Better public transport and related facilities
- Better access and treatment of cyclists
- Better access and treatment of pedestrians
- Better coordination for bus and taxi usage and after hours service/movement
- Better signage of car parking provisions (both on and off street)
- Better management of congestion and traffic flows

On street parking

On-street parking is perceived as an issue for the City Centre. In order to ensure there is adequate availability of on-street parking in the City Centre, there is a need to review regulated time limits to ensure it better meets the demands of City Centre users and ensure on-street car parking is used as efficiently as possible. The aim is to ensure short stay parking is regularly available to users within reasonable distance of their intended destination, particularly close to activity nodes.

The aim of time regulation for on-street parking is to:

- increase the availability of short stay parking in the City Centre by increasing the turn over of on-street spaces particularly in the city core;
- in the short term, designate commuter parking areas close to the city core precinct (both on-street and off-street);
- in the long term, provide long stay parking on the periphery of the City Centre (away from the city core and adjoining active streets).

These sites are intended for all day commuter traffic parking and will be serviced by the frequent city circuit bus service;

- reduce traffic circulation to look for parking spaces; and
- balance long stay verse short stay requirements.

A possible modified parking regime incorporating the establishment of long stay parking stations on the periphery of the city as shown in Fig. 17 on page 47, which may require further refinement.

The long term parking strategy that can achieve this would be:

- improve public transport connections to, from and within the City Centre
- establish a city circuit bus loop to move people around the city
- convert kerbside parking to short stay parking of 1 hour in the city core and 2-3 hours within other areas of the City Centre
- convert Council parking stations within the city core to short stay parking stations (2-3 hours max)
- establish a number of long stay car parking stations on the periphery of the City Centre intended for city commuter traffic which are accessed/serviced by the city circuit bus loop
- conduct regular surveys to monitor performance and outcomes

Invariably if the above measures are not working to ensure a better turn over of parking spaces, Council may have to consider paid on-street parking to ensure spaces in vital areas such as the city core turnover more rapidly through a pricing mechanism. This approach has been adopted at comparable city centres such as Cairns, Townsville and Rockhampton.

On site parking

As the city develops and the public transport system matures, there will naturally be a mode shift from dependence upon private motor vehicles to access the City Centre. Both "carrots" and "sticks" must be in place to both encourage the use of alternate modes of movement and discourage private vehicle usage. Car parking can be effective

in achieving both. Reducing the amount of on site car parking is one method available. With reduced on-site requirements there is less incentive to keep using private vehicles. Public transport strategies need to go hand in hand with car parking strategies in this regard. So too do policies like public realm improvements and cycling strategies.

The Brisbane City Council have adopted a maximum car parking rate of 1 space per 200m² of gross floor area (GFA). This effectively caps the amount of car parking available in the city and surrounding frame areas such as Fortitude Valley. This is appropriate in areas where there is a more mature public transport system. As Mackay is not at this stage, strategies to reduce demand for on-site car parking need to be appropriate for Mackay and transitioned over time.

Townsville in comparison is proposing a rate of 1 space per 50m² of GFA for its mixed use City Centre areas.

These strategies need to be balanced with commercial realities. Car parking whether in basements or podiums is expensive to build. The over prescription of car parking can be detrimental to the feasibility of projects. It can also undermine attempts to curtail private vehicle usage in the City Centre - with more parking available, the less likely people will be to use public transport.

As a general policy, reduced parking rates from car parking rates prescribed in the Mackay City Planning Scheme 2006, will be the goal of the City Centre Strategy. Accordingly, the following car parking rates are recommended.

Centre activities (City Core)

1 space per 50m², this will be calculated on additional floor space only. Where uses are in accordance with the definition of a City Centre Activity and no additional floor space is proposed, no additional parking will be required from what currently exists on site.

Ultimately working towards a maximum of 1 space per 200m² (GFA) for



Figure 17: MACKAY CITY CENTRE STREET CLASSIFICATION & POTENTIAL PERIPHERY PARKING STATIONS

commercial uses within the city core in the next 20+ years.

Centre activities (City Centre Frame)

1 space per 50m² (GFA), ultimately working towards a maximum of 1 space per 100m² (GFA) for in the next 20+ years.

Residential (entire City Centre)

- 1 space per unit/key containing 1 or 2 bedrooms
- 1.5 spaces per unit/key containing 3 or more bedrooms

Short term accommodation (entire City Centre):

- 1 space per 2 accommodation units

Is it recommended that Council adopt a scheme for payment in lieu of actual on-site car parking provisions when appropriate and where payment achieves say 50% of the actual cost to Council for the provision of parking spaces at the various city periphery car parking sites (previously noted in this chapter).

City Centre streets

Streets within the City Centre differ in structure, appearance and character to other streets within the adopted street hierarchy. Streets are not just for vehicle movement, they are the public face of the city, places where visitors gain their first taste of the city, provide information and wayfinding, and are social spaces.

Pedestrians are a major part of the street network and so providing pedestrian comfort is an important part of the design philosophy for streets in the City Centre. Movement in the city is not just about providing for private vehicles.

To assist pedestrian movement, all streets within the City Centre have footpaths on both sides of the road reserve. Footpaths should have adequate ramps at all kerb corners for wheelchairs and pram access and cater for people with disabilities. Street lighting that adequately lights the footpaths should be provided in all streets. The placement of street trees needs to consider impact on lighting. Pedestrian crossing

distances in streets should be limited through kerb extensions and tight turning radii, which ensures vehicular traffic will slow to negotiate the tighter corners.

The public realm which includes streets and buildings, should be designed to encourage the activities intended to take place within it. Streets should be designed to accommodate a range of users, create visual interest and amenity, and encourage social interaction. High-speed through traffic is not conducive to the creation of good streets for people.

The place function of streets may equal or outweigh the movement function, as described previously. This can be satisfied by providing a mix of streets of various cross-sectional treatments particularly footpath widths, awnings, street trees and the like, and including where appropriate play spaces, resting places and shelter.

These items are explored in more detail in the City Centre Public Realm Concept Plan document. It is important in this regard to consider the nature of the street, the range of desirable activities for the environment being created and to vary designs to suit each place in the network.

It is envisaged that 2 public realm standards will be developed for the City Centre, being:

- a high quality standard treatment for Victoria Street (between Brisbane and Milton Streets) and Wood Street (between River and Gordon Streets) as these streets are identified as being the most significant in terms of high pedestrian movement, connectivity and activity; and
- a basic standard treatment for all other streets and street segments - assumes public realm treatments within the existing verge width (i.e. lot boundary to kerb) and no verge build outs.

The development of surface treatment standards and footpath built-outs need to consider subsurface design requirements and geometry standards, particularly for Victoria and Wood Streets.

Although Mackay's city streets (with the exception of Shakespeare Street) have a consistent road reserve of 30 metres, public realm and building responses will help to provide variety and visual interest in the public realm, and promote walkability as a viable alternative for accessing local services.

Street character classification

The movement network for Mackay is based on the place and movement functions of streets within the City Centre. The classification of streets is based on the following:

- Regional/city wide significance
- Level of traffic
- Uses fronting the street
- Road reserve width
- Building frontage treatment
- Public realm treatment
- Level of local connectivity

There are five identified types of roads within the classification strategy for the City Centre (refer to Figure 15 on page 47 for relevant street classifications). The road cross-sections on pages 52-57 illustrate conceptual layouts/configuration and usage of streets that facilitates movement, access and unique city landscaping. These cross-sections require further investigation and do not replace existing adopted street layouts/configuration.

Cross-sections within the City Centre are as follows:

- Arterial Roads (Business Boulevards)
- Sub Arterial Roads (Mixed Use Boulevards)
- Collector Streets (Boulevards)
- Access Streets
- Laneways



Wood Street looking north

City Centre laneway strategy

Mackay, like many other cities and towns throughout Australia and the world, has an established network of laneways that provide rear access, servicing, loading, collecting and in some instances parking - particularly within the city core.

The City Centre laneway strategy is viewed as a long-term strategy that seeks to retain existing laneways and extend the network of laneways across the City Centre. The overall vision of the laneway strategy is to create a well coordinated fine grain network for pedestrians and vehicles that is safe, well activated, presentable and pleasant to use.

An expansive network of laneways benefits the City Centre as a whole by enhancing connectivity, access, servicing and loading within and through city blocks that has a flow on benefit to pedestrian movement on streets - where street frontages can be continuous along important pedestrian routes without the interruption of access driveway crossovers. These benefits provided to pedestrians, business and service vehicles through the provision of laneways ensure the vitality and longevity of the city at street level.

As it stands, most of the existing laneways within the City Centre do not extend all the way through the block and do not perform the function they were originally intended to perform. This strategy provides a platform for these laneways to extend through the entire block allowing them to operate as per their traditional servicing functions and to extend out beyond the city core.

Principally, the laneway strategy:

- completes existing laneways
- creates new laneways parallel to key movement streets - particularly River Street, Victoria Street and Gordon Street
- allows rear access, servicing, loading and collecting
- increases permeability of, and connectivity within, the City Centre that promotes pedestrian use and activity
- provides an opportunity to connect combine sewer, currently running at the back of lots, to a new sewage system in the laneway road reserve

- provides an opportunity for other urban infrastructure networks (i.e. electricity, telecommunications, and the like) to locate in the laneway road reserve resulting in minimal disturbance to key movement streets (where they traditionally locate).

The extent, location, design, management and usage of laneways all provide consistency, certainty and coordination to ensure all laneways work in unison to deliver a high quality movement network across the City Centre.

Laneways will adhere to the following principles:

- laneways are to be provided as a road dedication where new development is proposed and provided equitably by landowners either side of the laneway
- laneways identified as a blue dashed line on Figure 15 are to have a minimum width of 5m
- laneways identified as a red dashed line on Figure 15 are to have a minimum width of 9m
- laneways will generally be straight and have visibility from end to end to ensure safety for users
- laneways will be shared pedestrian/vehicle spaces
- laneways are intended as service accesses and are not intended to provide on street parking
- where a laneway access is achievable, all vehicle and servicing access is to be from the laneway

Improvements to laneways can involve:

- streetscape upgrades should combine improvements in activation as well as improvements in appearance, design and construction to ensure the laneways are safe and well used to maximise the City Centre's potential and expenditure;
- buildings with frontage to laneways provide openings that address the laneway; and
- the establishment of new laneways where there are currently gaps in the network, as well as ongoing coordination of individual public and private projects over many years.

As the City Centre grows and matures over time and the extension/ establishment of laneways comes to fruition, laneways (particularly those within the city core precinct) are likely at some point to develop a secondary role. This is where laneways offer opportunities to host interesting intimate urban activities that greatly improve the pedestrian experience in the City Centre. Such urban activities and experiences can be permanent (retail and dining) or ephemeral (activities that usually occur outside business hours - night/weekend dining, festivals, markets, and the like) dependent on the overriding primary function (i.e. servicing, access, etc) of the laneway.

The utilisation of laneways for urban activities is likely to start small - i.e. at the corner of streets and laneways (e.g. tenancies occupying the corner of the street and laneway at night for outdoor dining), and over time organically expand into the laneway as popularity and usage increases.



Eighth Lane - off Wood Street

Arterial Roads (Business Boulevard)

Arterial Roads are the highest order streets within the hierarchy and generally have high movement and high place functions. This type includes Sydney Street (north of Gordon Street) and Gordon Street (west of Sydney Street).

The recent construction and opening of the duplicated Forgan Bridge is a strong indication of the intended role and function of Sydney Street and Gordon Street to primarily provide access to and from the City Centre for all modes of transport. Therefore, the existing street cross-section (two lanes of traffic movement in each direction) for both Sydney and Gordon Streets will be retained with opportunities for build-outs at key intersections improving the public realm.

Buildings along these streets are generally built to the alignment with continuous frontages and awnings over footpaths. However to achieve a wider footpath on Gordon Street, a maximum setback of 1m is required. This will allow for the existing road elements such as four lanes, median width and kerbside parking to be retained. Existing travel lane widths will allow for a bicycle to travel in each direction.

Rear lanes will be encouraged to gain access to properties fronting these streets, particular Gordon Street. This is a highly ceremonial and visually important street with a 4 metre median allowing for turning lanes, deep planting and pedestrian refuge when crossing mid block.

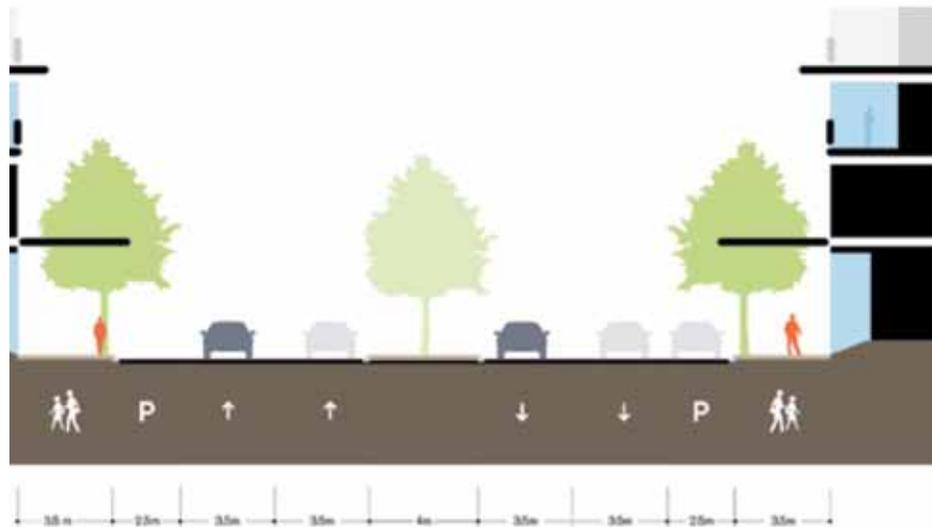
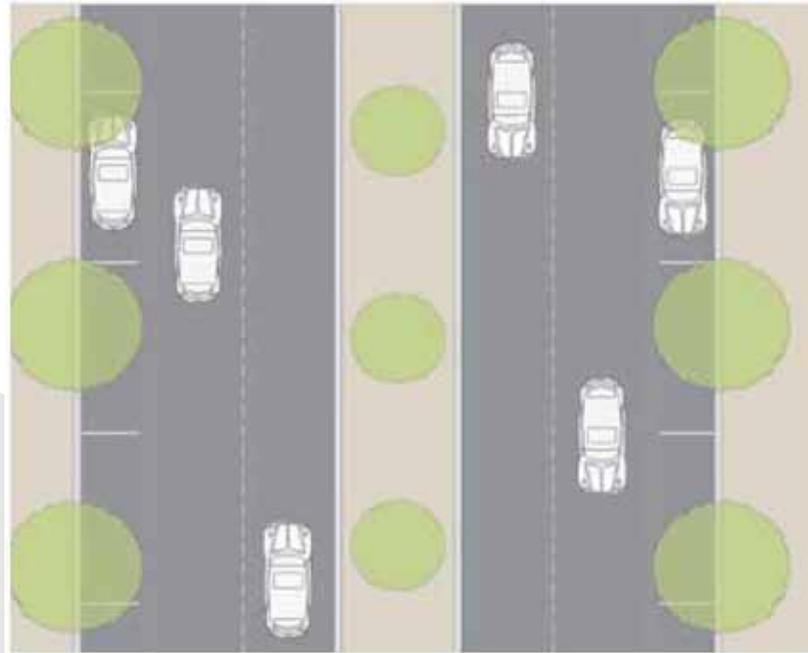


Figure 19: ARTERIAL ROAD CROSS-SECTION

Reserve width	30 m
Movement lanes	4 x 3.5 m min
Designated cycle lanes	No, informal arrangement
Median	4 m
Footpath	3.5 m (4.5m if a maximum 1m building setback is imposed on Gordon Street)
On street parking	2.5 m wide lanes
Bus route	Yes
Pedestrian crossings	Intersections and intermediate
Posted speed	60 kph

Arterial Roads - Alternative cross-section

As an alternative to the existing Gordon Street and Sydney Street cross-sections, these streets could have off-peak and on-peak traffic arrangements. During the off-peak period, one movement lane each way with a dedicated bike lane and parallel parking. During the on-peak period, two movement lanes each way with the bike lane and parking lane used as the additional movement lane (becoming a clearway). There should be enough room for cyclists on the outer side of the far left travel lane during on-peak periods with no dedicated cycle lane markings.

Reserve width	30 m
On-peak movement lanes	4 x 3.5 m min
Off-peak movement lanes	2 x 3.5 m min
Designated cycle lanes	Yes (off peak only)
Median	5m
Footpath	5.0 m
On street parking	2.5 m wide lanes (off peak only)
Bus route	Yes
Pedestrian crossings	Corners and intermediate
Posted speed	60 kph

This is a highly ceremonial and visually important street with a 5 meter median allowing for turning lanes, deep planting and pedestrian refuge when crossing mid block.

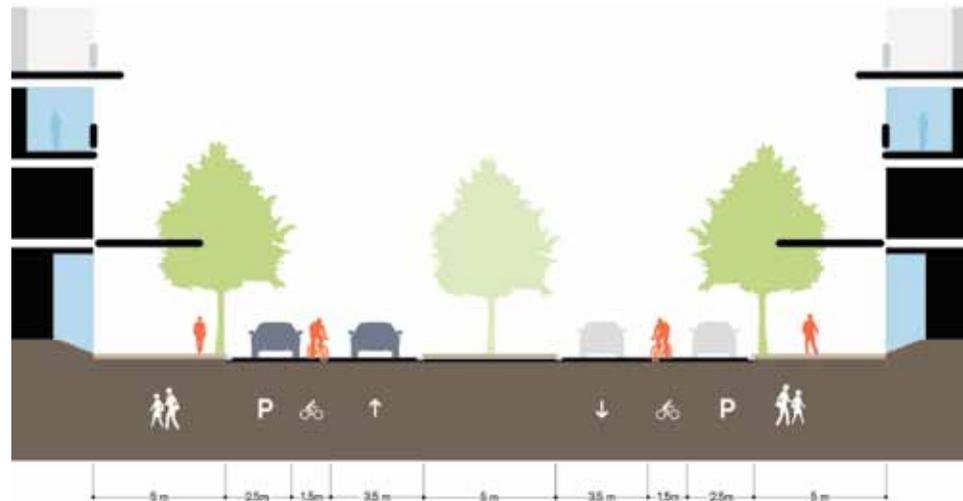
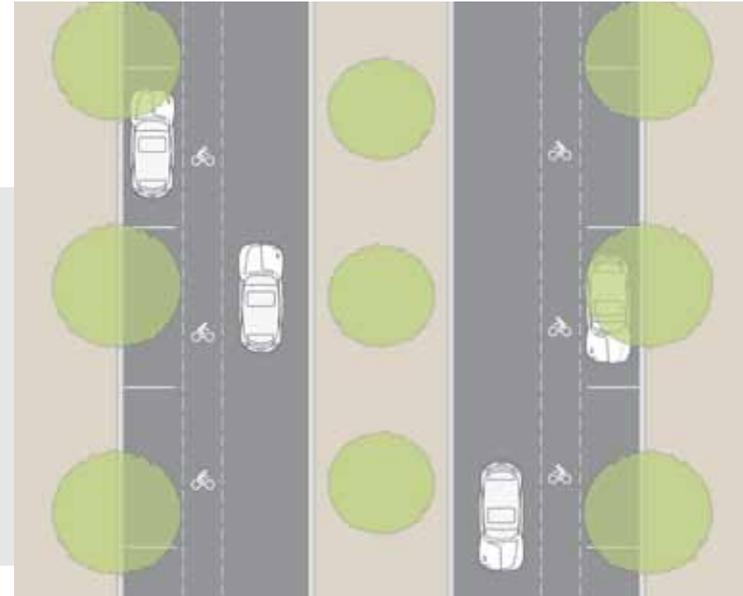


Figure 20: ALTERNATIVE ARTERIAL ROAD CROSS-SECTION

Sub Arterial Roads (Mixed Use Boulevard)

Sub arterial roads are generally higher order streets that carry through traffic but are not controlled by DTMR. They distribute traffic through the city but have a very high place and movement function. These streets include Milton (north of Gordon Street), River and Shakespeare Streets and Mangrove Road. River and Shakespeare Streets will be high value residential addresses as the city develops over time. Buildings are built up to the front alignment and contain continuous awnings over footpaths to protect pedestrians and promote pedestrian movement between activity nodes.

Reserve width	30 m
Movement lanes	2 x 3.5 m (two way)
Designated cycle lanes	Yes (1.5 m)
Median	4.0 -6.0 m
Footpath	4.5 - 5.0 m
On street parking	2.5 m wide kerb side lanes (and/or 6.0m centre median parking)
Bus route	Yes
Pedestrian crossings	Corners and intermediate
Posted speed	50 kph

Depending on preferred landscape treatment centre median parking may be provided with this street type.

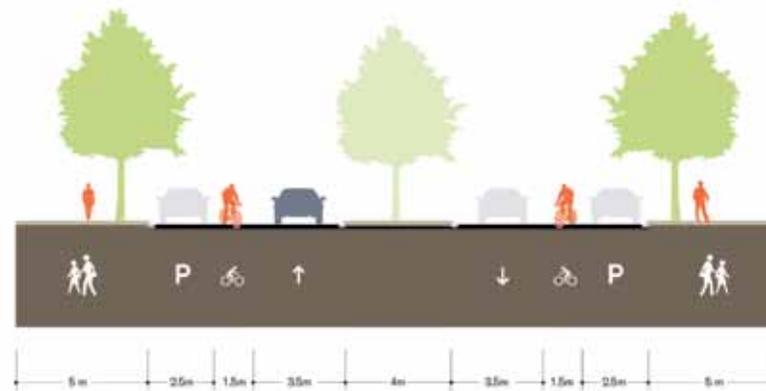
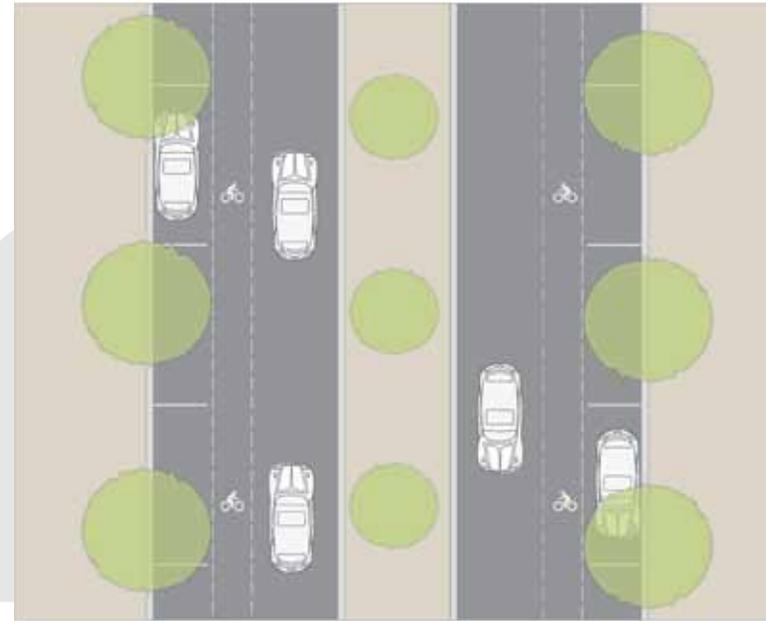


Figure 21: SUB-ARTERIAL ROAD CROSS-SECTION

Collector Streets (Boulevards)

Collector Streets are both east/west and north/south streets which distribute traffic through the city but have a very high place function. These streets include Matsuura Drive, Victoria, Wellington, Gregory, Wood (north of Gordon Street), Gordon (east of Sydney Street), Endeavour and Alfred Streets. On active frontage streets, buildings are built up to the front alignment and may contain continuous awnings over footpaths to protect pedestrians and promote pedestrian movement between activity nodes.

Reserve width	30 m
Movement lanes	2 x 3.5 m (two way)
Designated cycle lanes	Yes
Median	6 m
Footpath	4.5 m
On street parking	2.5 m wide lanes and 6.0m centre median parking
Bus route	Yes
Pedestrian crossings	Corners and intermediate
Posted speed	40 kph

These street types may or may not have active frontages and could include opportunities for residential frontages and live work units.

Ample parking is generally provided in the form of kerb side and centre median parking.

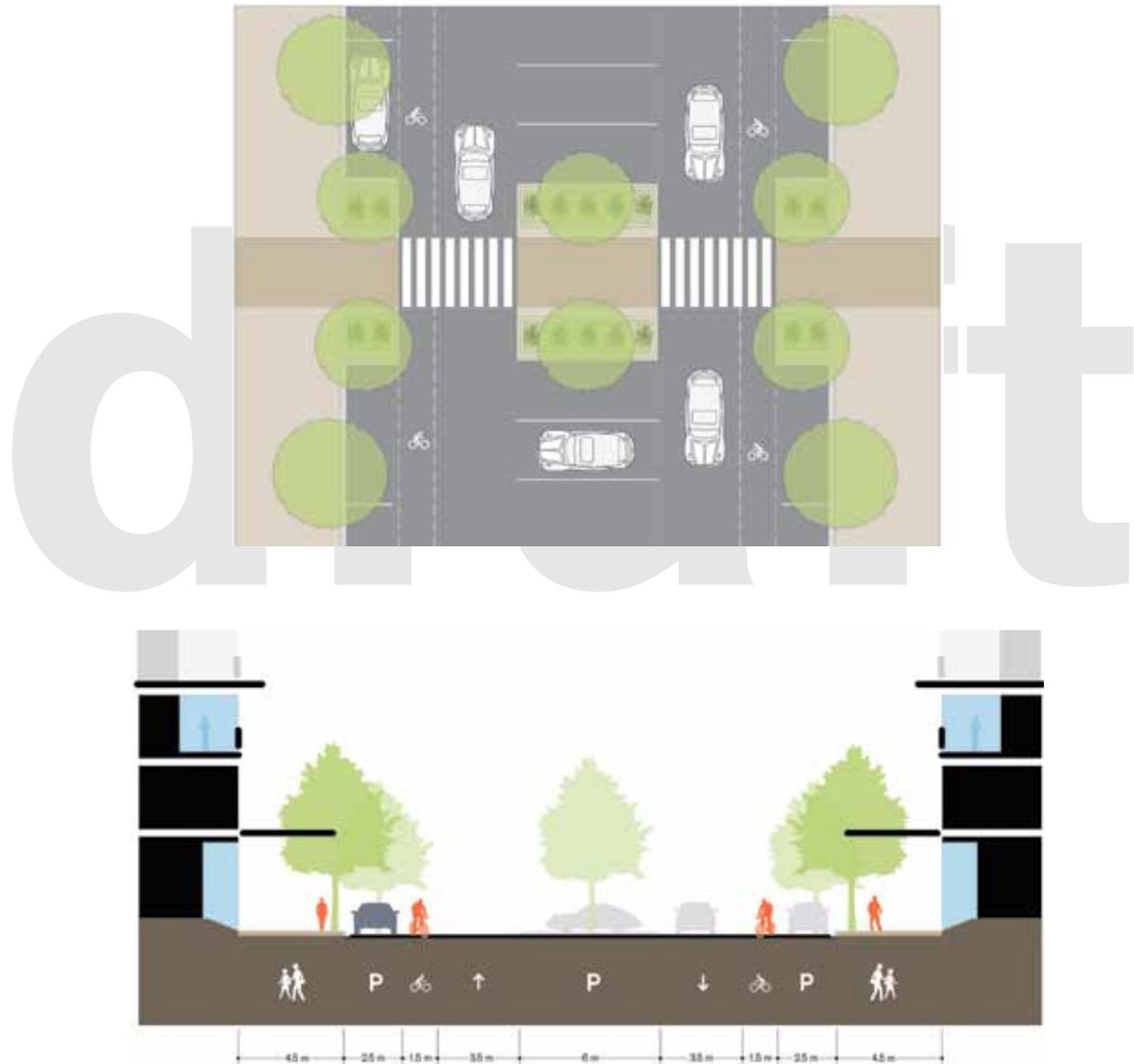


Figure 22: COLLECTOR STREET CROSS-SECTION

Access Streets

Access Streets provide access to a range of uses and activities. These streets connect higher order streets and generally do not carry high volumes of traffic. A high place function, these quieter streets create good business and residential addresses for a range of uses within the city.

Buildings along these streets may be built to the alignment

Reserve width	30 m
Movement lanes	2 x 3.0 m (two way)
Designated cycle lanes	No
Median	No
Footpath	6.0 m (may vary depending on treatment)
On street parking	2.5 m wide lanes and 6.0m centre median parking
Bus route	No
Pedestrian crossings	Corners and intermediate
Posted speed	40 kph

These streets are visually tight and may have a range of cross sectional treatments that vary with location within the City. The cross-section shown here is a typical cross-section only. These streets are characterised by their high levels of shade which makes pedestrian movement comfortable.

Ample parking is generally provided in the form of kerb side and centre median parking.

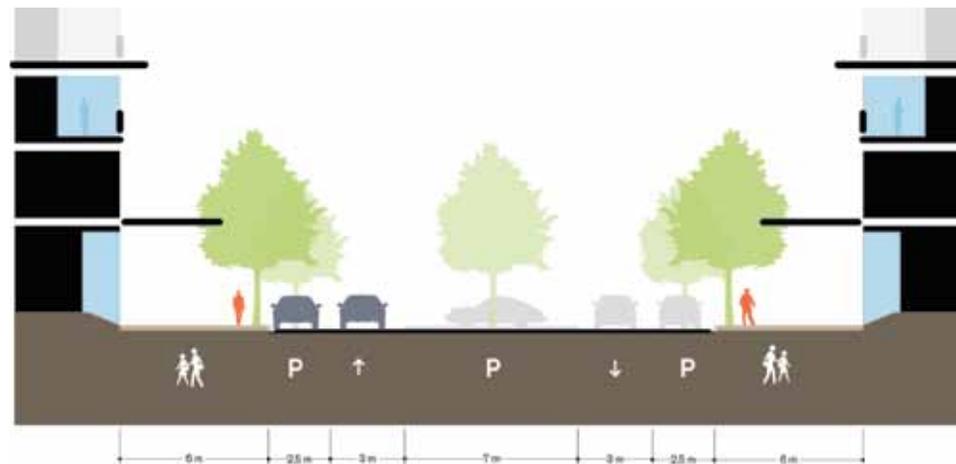
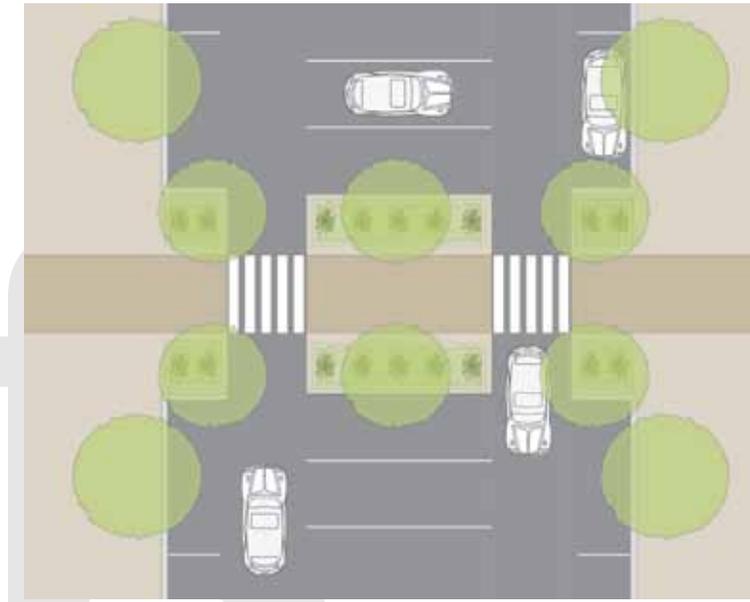


Figure 23: ACCESS STREET CROSS-SECTION

Laneways

Laneways provide service access for commercial and residential developments, particularly on streets with active frontages and high pedestrian movement. They provide rear access allowing buildings to maintain continuous active frontages without the intrusion of driveway crossovers.

Reserve width	9 m
Movement lanes	2 x 2.5 m (1 in each direction)
Designated cycle lanes	No
Median	No
Footpath	2 m
On street parking	No
Bus route	No
Pedestrian crossings	Shared space
Posted speed	10 kph

The short term nature of the service vehicle parking will result in parking spaces turning over relatively quickly. Rear servicing via laneways will result in a decrease in the number of loading bays on the street allowing for greater public realm opportunities to be realised. On street parking is maintained through peak periods as this street does not carry high volumes of traffic. The street is a mix of visually and physically tight elements with buildings and street trees enclosing the street space. This street is a very active pedestrian space so pedestrian crossings are frequent.

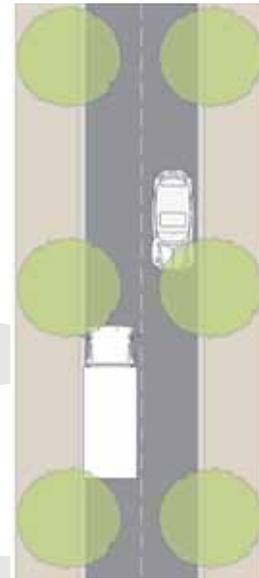


Figure 24: LANEWAY CROSS-SECTION

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Appendix 1 – Glossary of other terms and acronyms

Active building facade – relates to built form elements. Built form elements required on an active street frontage include:

- Continuous footpath awning to all frontages;
- A combination of openings (both doors and windows) and balconies to address and overlook the street.

Active land use – means a land use generally located at ground level that is open to the general public both day and night. Active land uses contribute towards the high place function and setting of a street.

Articulation – means designing a building, or the facade of a building, with clearly distinguishable parts.

Articulation zone – an area from the main face of the building to the outermost projection where elements such as sun shading, balconies, roofs, eaves and overhangs can project into, to assist in articulating the façade.

Australian Height Datum (AHD) – the survey height datum adopted by the National Mapping Council as the datum to which all vertical control for mapping is to be referred. 0.0 metres AHD approximates mean sea level.

Chamfer - buildings on corners will be required to provide a 45° chamfer as shown in Figure 25, on page 61. This chamfer is to be reflected through the height of the building on every floor including the main face and articulation zone.

Centre Activity Group – the following QPP land uses form a land use cluster for centre activities. These land uses include:

- Food and drink outlet
- Function facility
- Funeral parlour

- Hardware and trade supplies – if involving a retail shop open to the general public only
- Health care services
- Hostel
- Indoor sport and recreation
- Office
- Shop
- Shopping centre
- Short term accommodation
- Showroom
- Theatre
- Veterinary services.

Corner truncation – buildings on corners will be required to provide a 4m by 4m truncation. The corner truncation is dedicated as road reserve and incorporated into the footpath (see Figure 25).

Dedicated road – any road dedicated to the public for public use.

DTMR – Queensland Department of Transport and Main Roads.

Key activation street – are those streets that are identified as key linkages between the established activity and amenity nodes within the City Centre. Key activation streets are indicated as thick black line on *Figure 9 Mackay city centre street frontages*.

Main face - the shortest distance measured horizontally to the plane in which the main facade of the building occurs not including any balconies, eaves, awnings or overhangs.

Obstacle Limitation Surface (OLS) - means the uppermost allowable building and structure height, measured by using the Australian Height Datum (AHD), that does not affect the safe operation of a nearby airport.

Outermost projection (OMP) - means the outermost projection of any part of a building or structure including, in the case of a roof, the outside face of the fascia, or the roof structure where there is no fascia, or attached sun shading or the like, but does not include retractable blinds, fixed screens, rainwater fittings, or ornamental attachments.

Plot ratio – means the ratio of gross floor area to the area of the site.

Precinct – an area identified for specific value or criteria within a local plan or zone.

QPP - means Queensland Planning Provisions

Streetscape – means the collective combination of urban form elements that constitute the view of a street and its public and private domains. These elements include buildings, roads, footpaths, vegetation, open spaces and streets.

Frontages

Key active frontage - means buildings nominated as having a key active frontage on *Figure 9 Mackay city centre street frontages* that:

- activate the street for extended hours of the day and night by building up to the street edge, parallel to the street alignment and support a mix of uses
- ensure frontages address the street and have continuous awnings for shelter and shade
- are visually and physically permeable containing full length windows and regular entrances, displaying activities and/or facilitating surveillance and interaction for a minimum of 75% of the building frontage
- reinforce the priority of the pedestrian by addressing the street and including strongly expressed pedestrian entrances and contributing

to comfort for pedestrians by delivering continuous awnings providing shelter over footpaths

- incorporate car parking that is located below ground or where car parking is provided at grade or within the podium, is to be sleeved with active uses to ensure overlooking of the street increasing surveillance
- have vehicle access points to development for car parking or servicing from rear laneways.

Secondary active frontages - means buildings with a secondary active frontage as noted on *Figure 9 Mackay city centre street frontages* that:

- contribute to activating streets by building up to the street edge, parallel to the street alignment and supporting a mix of uses
- address the street and public realm but may have a wider variety of setbacks to allow for privacy to be maintained between street and dwelling and cater for courtyards, balconies and deep planting areas
- should have continuous awnings for shelter and shade
- must be respectful of the pedestrian public realm
- provide facades that contain well-detailed and articulated access points at frequent intervals along pedestrian networks, and do not include blank walls
- allow vehicle access points but locate and design them to minimise impacts on the public realm.

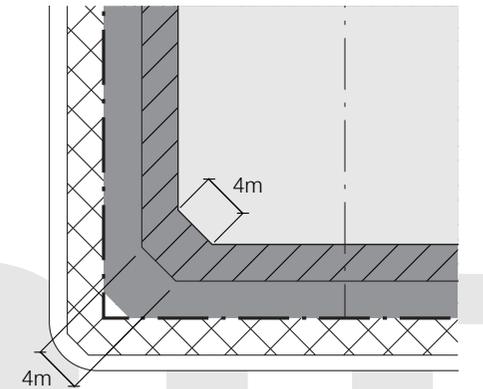


Figure 25: BUILDING CHAMFER DETAIL

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Appendix 2 – Building typologies

Type 1 Key active frontage: City Core precinct/Victoria Street

Description

This building typology is for the majority of the city core precinct and the western extent of Victoria Street (between Gregory Street and Milton Street). It is intended to provide a typology that respects the heritage and character city core by providing a two level podium commensurate with the height of facades in this area and extending the unique built form characteristics and rhythm of the city core west along Victoria Street.

Above the podium, buildings are setback to:

- highlight facades, both new and character/heritage, to ensure taller buildings do not dominate or detract from the character, human scale and value of these important heritage buildings;
- maintain the open look and feel of the city core and Victoria Street.

A building height of up to 10 storeys may be achieved within the city core precinct on:

- prominent sites (at street intersections) where there is minimal impact to heritage buildings and the built form presents higher quality architecture and design;
- sites located on the periphery of the precinct where there is minimal impact to heritage buildings.

High-rise development on sites with heritage buildings listed on the local heritage register must be accompanied by a Heritage Management Plan at the development application stage.

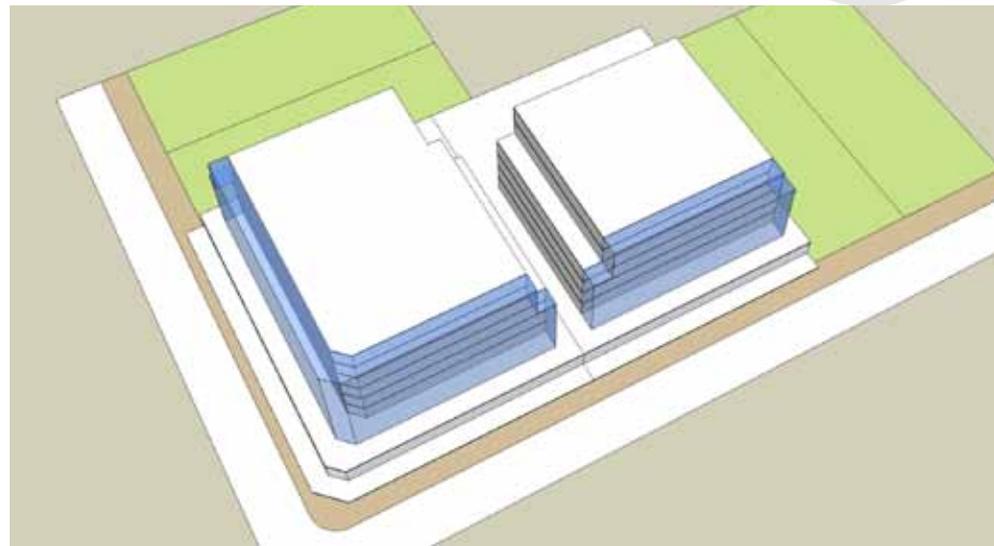
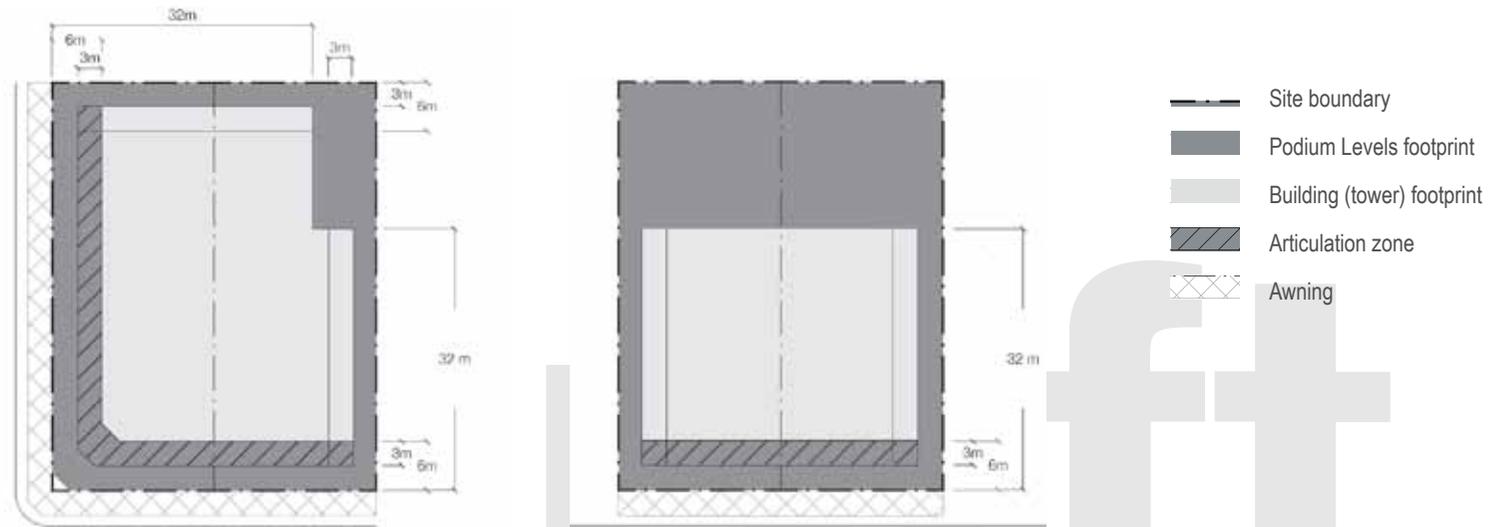
High-rise development above 4 storeys does not occur on state heritage listed buildings/sites.

Sites with frontage to Victoria Street (between Gregory Street and Milton Street) can have a maximum building height of 50m AHD.

Development Standards

Building setbacks		
Podium levels (maximum 2 storeys)	Front	0.0m
	Side	0.0m
	Rear	0.0m
Levels 3-6	Front	6.0m (to main face - does not include 3.0m articulation zone)
	Side	3.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Levels 7 and above	Front	6.0m (to main face - does not include 3.0m articulation zone)
	Side	6.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Building height (does not include any basement levels)		
Minimum building height	14m (4 storeys) to 26m (8 storeys) above ground level	Building height may be up to 10 storeys may be achieved in the City Core precinct dependant on the location of the site in relation to registered local and state heritage places (buildings). Refer to the relevant building height provisions in <i>Figure 6: Building Heights Plan</i> on page 30 to determine the maximum and/or minimum building height.
Maximum building height	26m (8 storeys) above ground level to 50m AHD	
Maximum building height if involving a state heritage place	14m above ground level (4 storeys)	
Lot size and dimension		
Minimum lot size	1500m ²	
Minimum frontage	25m	
Miscellaneous		
Floor height (floor to ceiling)	Ground floor	minimum 4.5m
	All levels above ground floor	minimum 3m
Maximum building depth	32m (OMP)	
Maximum floor plate (above podium)	Commercial	1200m ² (in any single tower)
	Residential	1000m ² (in any single tower)
Awning	Continuous	All frontages (min awning width of 3.0m)
Corner truncation	All street corners	4m x 4m to be dedicated as road reserve

TYPE 1 BUILDING AREA PLANS



TYPE 1 BUILDING ENVELOPE ELEVATIONS

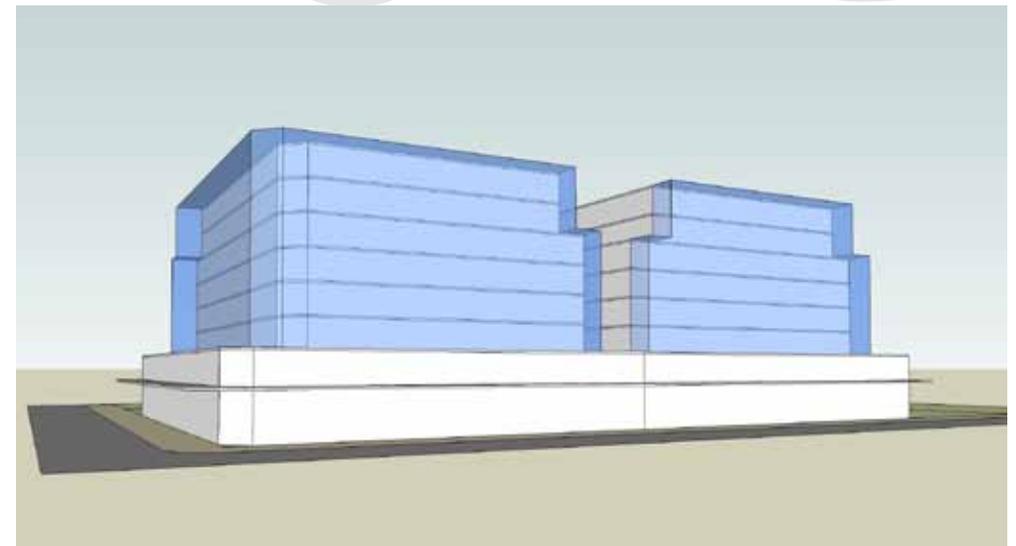




Figure 26: T&G BUILDING ON THE CORNER OF WOOD AND VICTORIA STREETS



Figures 27 & 28: EXAMPLE OF HERITAGE BUILDING REDEVELOPMENT - POTENTIAL REDEVELOPMENT OF T&G BUILDING

Type 2 Key active frontage - city centre frame

Description

This building typology is for the commercial and residential mixed use areas surrounding the city core. Buildings are required to be built to the street alignment and have awnings which extend over footpaths for the full frontage of the site.

This building type is generally located on high pedestrian linkage streets such as Gordon Street (between Carlyle Street and Milton Street) and Sydney Street (south of Gordon Street), Alfred Street (between Wood Street and Brisbane Street), Victoria Street (between Brisbane and Carlyle Street), southern side of River Street west (between Gregory Streets and Mangrove Road), River Street east (between Brisbane Street and Lawson Street), Mangrove Road, western side of Milton Street (between Victoria Street and Gordon Street), Wellington Street (between Gordon Street and Alfred Street), Macalister Street (between Gordon Street and Alfred Street), Wood Street (between Shakespeare Street and Gordon Street) and Gregory Street (between Gordon Street and Second/Fifth Lanes).

In areas adjacent to the Pioneer River (east and west of the City Core), buildings can have a maximum height of 50m AHD in order to maximise residential density and take advantage of the scenic amenity of the Pioneer River and nearby coastline.

Buildings located on the southern frontages of the City Centre particularly in the vicinity of Shakespeare Street are a maximum of 4 storeys in height with a single level podium which defines the base of the buildings.

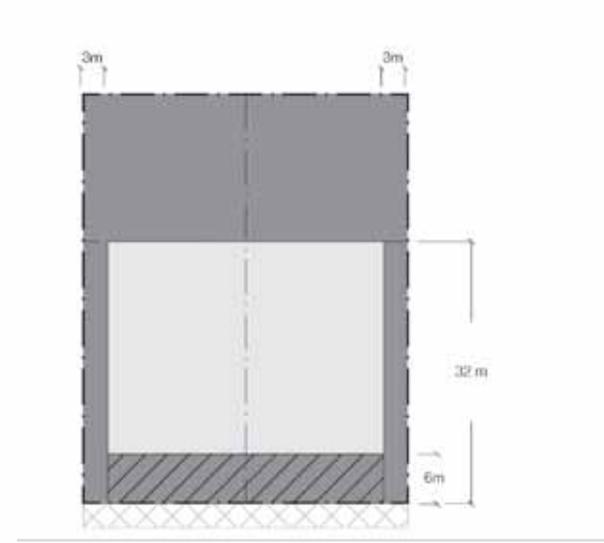
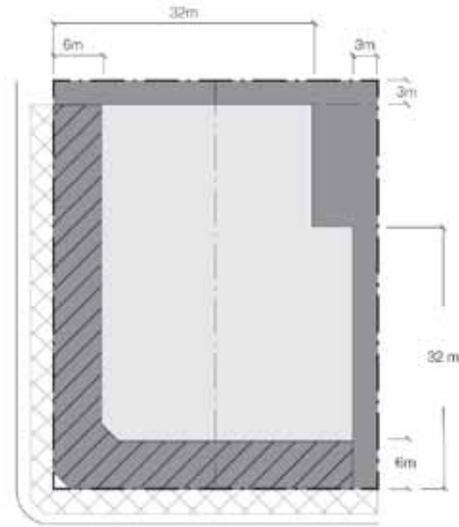
Minimum and maximum buildings heights for this building typology are dependent on the height provisions *Figure 6: Mackay city centre building heights* on page 25.

Development Standards

Building setbacks		
Podium levels (maximum 2 storeys)	Front	0.0m*
	Side	0.0m
	Rear	0.0m
Levels 3-6	Front	3.0m* (to main face - does not include articulation zone)
	Side	3.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Levels 7 and above	Front	3.0m* (to main face - does not include articulation zone)
	Side	6.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Building height (does not include any basement levels)		
Minimum building height	14m (4 storeys) to 26m (8 storeys) above ground level	Refer to the relevant building height provisions in <i>Figure 6: Mackay city centre building heights</i> on page 26 to determine the maximum and/or minimum building height.
Maximum building height	26m (8 storeys) above ground level to 50m AHD	
Lot size and dimension		
Minimum lot size	1500m ²	
Minimum frontage	25m	
Miscellaneous		
Floor height (floor to ceiling)	Ground floor	Minimum 4.5m
	Levels above the ground floor	Minimum 3m
Maximum building depth	32m (OMP)	
Plot ratio (for buildings with a max of 4 storeys or less)	1.8 where the site is 2000m ² or greater	Otherwise 1.0
Max floor plate (above podium) - for buildings greater than 4 storeys	Commercial	1200m ² (in any single tower)
	Residential	1000m ² (in any single tower)
Awning	Continuous	All frontages (min awning width of 3.0m)
Corner truncation	All street corners	4m x 4m to be dedicated as road reserve

*Note: Add an additional 1.0m for all front setbacks along Gordon Street if the alternative arterial road cross-section for Gordon Street is adopted.

TYPE 2B BUILDING AREA PLAN



LEGEND

-  Site boundary
-  Podium Level (max 1 storey)
-  Building (tower) footprint
-  Articulation zone
-  Awning



TYPE 2B BUILDING ENVELOPE

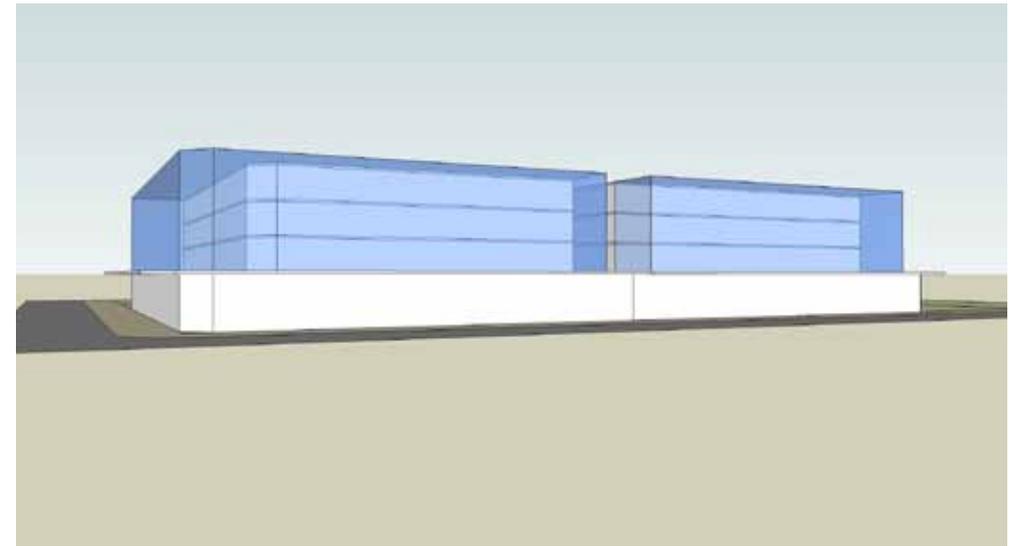




Figure 29: ILLUSTRATIVE PERSPECTIVE OF TYPE 2 BUILDINGS - INTERSECTION OF VICTORIA STREET AND NELSON STREET

Skillion roof forms extend into the articulation zone

Corner building chamfer extends the full length of the building façade

Balconies overlook the street providing interaction with and surveillance of the street below

Two levels of podium is consistent with existing retail/commercial development on main streets

Ground level activated by finer grain retail and commercial uses



Figure 30: TYPE 2 BUILDING STUDY



Balconies orientate to front and back rather than side to side ensuring privacy is maintained

Sliding screens to balconies provide weather / sun protection and assist in articulating the facade

Sliding screens to balconies provide weather/sun protection and assist in articulating the facade

Figure 31: TYPE 2 BUILDING STUDY (12 STOREYS)

Skillion roof forms extend into the articulation zone

Balconies overlook the street providing interaction with and surveillance of the street below

Corner chamfer extends the full length of the building façade

Two levels of podium is consistent with existing retail/commercial development on main streets

Ground level activated by finer grain retail and commercial uses



Figure 32: TYPE 2 BUILDING STUDY (8 STOREYS)



aft

Balconies orientate to front and back rather than side to side ensuring privacy is maintained

Sliding screens to balconies provide weather/sun protection and assist in articulating the facade

Figure 33: TYPE 2 BUILDING STUDY (8 STOREYS)

Type 3 Secondary active frontage

Description

This building typology is for the commercial and residential mixed use areas surrounding the city core. Typically, buildings do not have podium levels and are not required to be built to the alignment, but however are still required to:

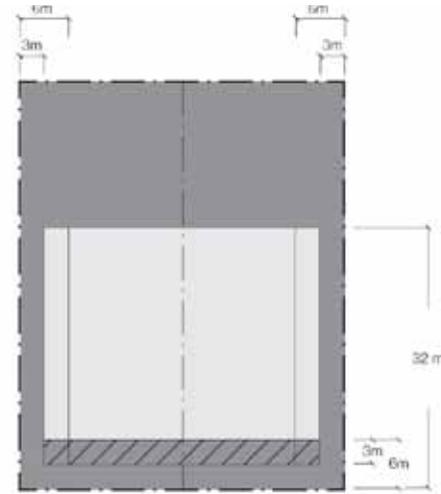
- provide an interesting building facade and address the street frontage by providing windows, doors, balconies and the like; and
- provide a combination of shade vegetation and footpath awnings for the full frontage of sites.

Minimum and maximum building heights for this building typology can be determined by referring to *Figure 6: Mackay city centre building heights* on page 25.

Development Standards

Building setbacks		
Levels 1-6	Front	3.0m (to the articulation zone) 6.0m (to the main face of the building)
	Side	3.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Levels 7 and above	Front	6.0m* (to main face - does not include articulation zone)
	Side	6.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Building height (does not include any basement levels)		
Minimum building height	8.5m (2 storeys) to 26m (8 storeys) above ground level	Refer to the relevant building height area in <i>Figure 6: Mackay city centre building heights</i> on page 26 to determine the maximum and/or minimum building height.
Maximum building height	11 m (3 storeys) above ground level to 50m AHD	
Lot size and dimension		
Minimum lot size	1500m ²	
Min frontage	25m	
Miscellaneous		
Floor height	All levels	Minimum 3m
Maximum building depth	32m (OMP)	
Max floor plate (above podium)	Commercial	1200m ² (in any single tower)
	Residential	1000m ² (in any single tower)
Awning	Continuous	All frontages (min awning width of 3.0 m). Awnings can be attached or freestanding.
Corner truncation	All street corners	4m x 4m to be dedicated as road reserve

TYPE 3 BUILDING AREA PLAN

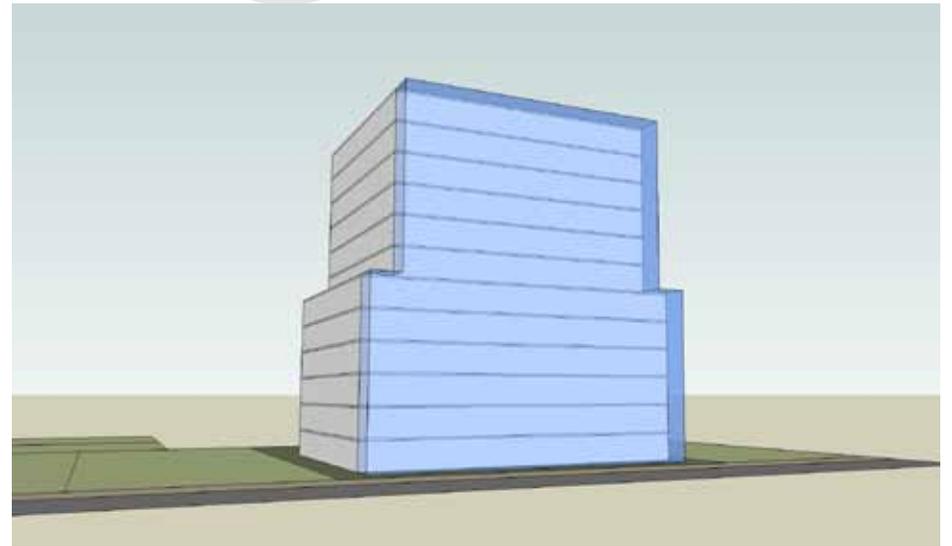


LEGEND

-  Site boundary
-  Building footprint
-  Articulation zone
-  Awning



TYPE 3 BUILDING ENVELOPE ELEVATIONS



Type 4 Low impact industry frontage

Description

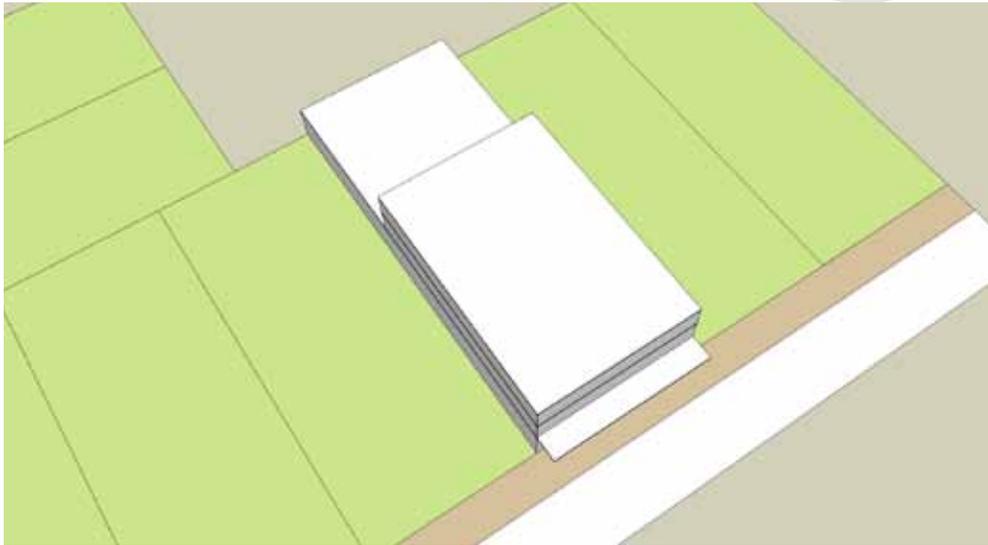
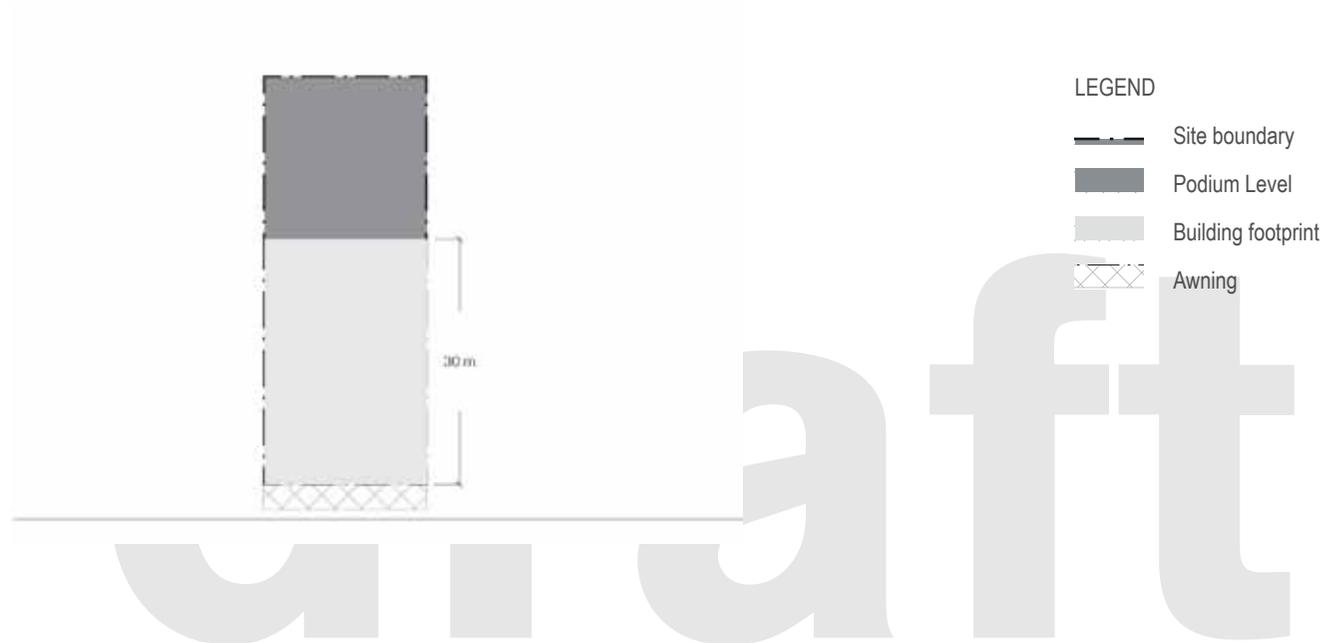
This building typology is for the Low impact industry zone area east of the Principal Centre zone and is a simple functional building which can be adapted to a number of uses including warehousing, showroom, light industry and the like. Buildings are built to the street alignment and will require a footpath awning if the site has frontage to Victoria Street and Gordon Street. These buildings have a maximum height of 3 storeys with a one storey podium that defines the base of the building. Levels above the podium are built to the front boundary alignment.

Building heights for this building typology can be determined by referring to *Figure 6: Mackay city centre building heights* on page 25.

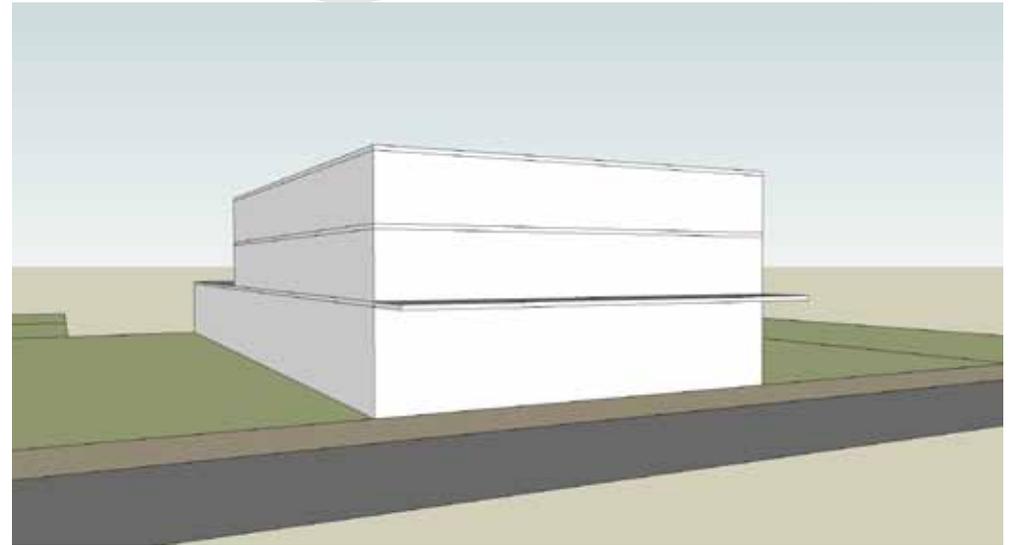
Development Standards

Building setbacks		
Podium (1 level only)	Front	0.0m
	Side	0.0m
	Rear	0.0m
Levels 2-3	Front	0.0m
	Side	0.0m
	Rear	18m (OMP)
Building height (does not include any basement levels)		
Maximum building height	11 m (3 storeys) above ground level	Refer to the relevant building height area in <i>Figure 6: Mackay city centre building heights</i> on page 26 to determine the maximum and/or minimum building height.
Lot size and dimension		
Minimum lot size	1000m ²	
Min frontage	20m	
Miscellaneous		
Plot ratio	1.2	
Floor height (floor to ceiling)	Ground floor	Minimum 4.5m
	All levels above the ground floor	Minimum 3m
Maximum building depth	32m (OMP)	
Awning	Continuous	All Frontages (min 3.0m)
Corner truncation	All street corners on Victoria Street and Gordon Street	4m x 4m to be dedicated as road reserve

TYPE 4 BUILDING AREA PLAN



TYPE 4 BUILDING ENVELOPE ELEVATIONS



Type 5 Low intensity frontage

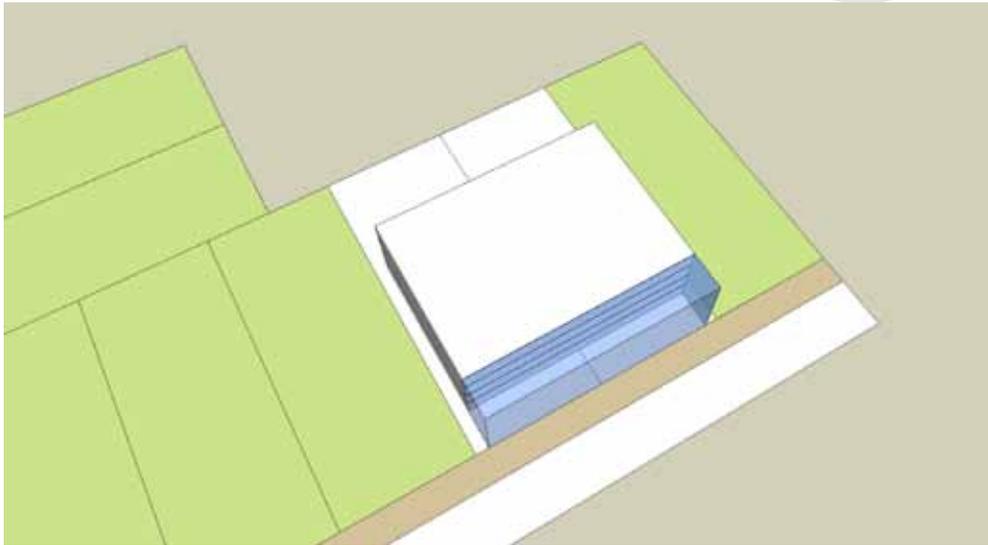
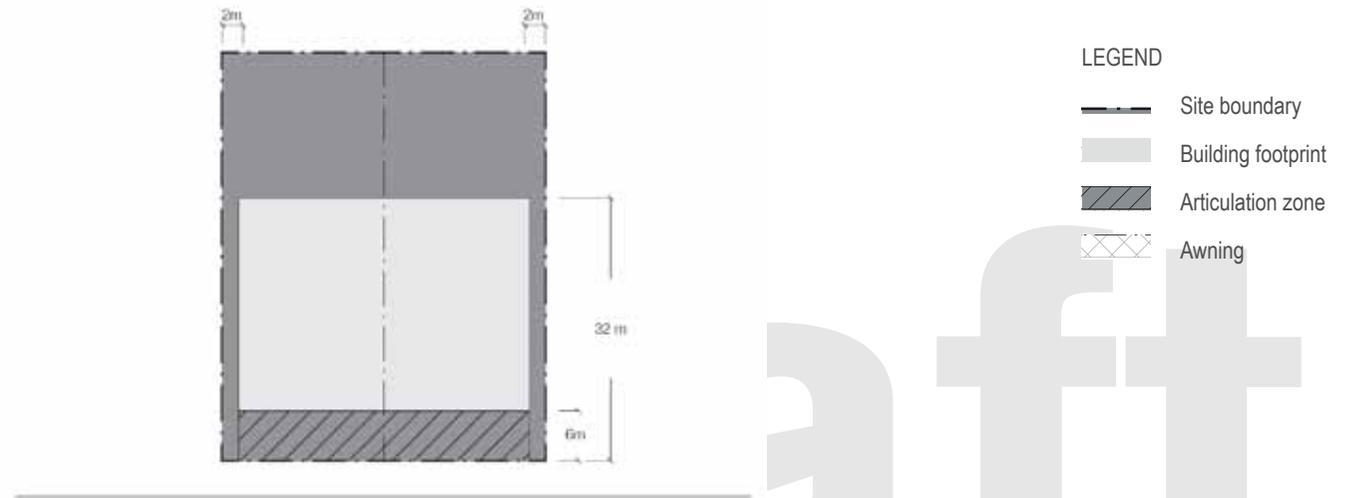
Description

This typology occurs generally in residential areas on the southern and eastern frontages of the City Centre where buildings are not required to be built to the alignment and have a podium level. Building heights for this building typology can be determined by referring to *Figure 6: Mackay city centre building heights* on page 25.

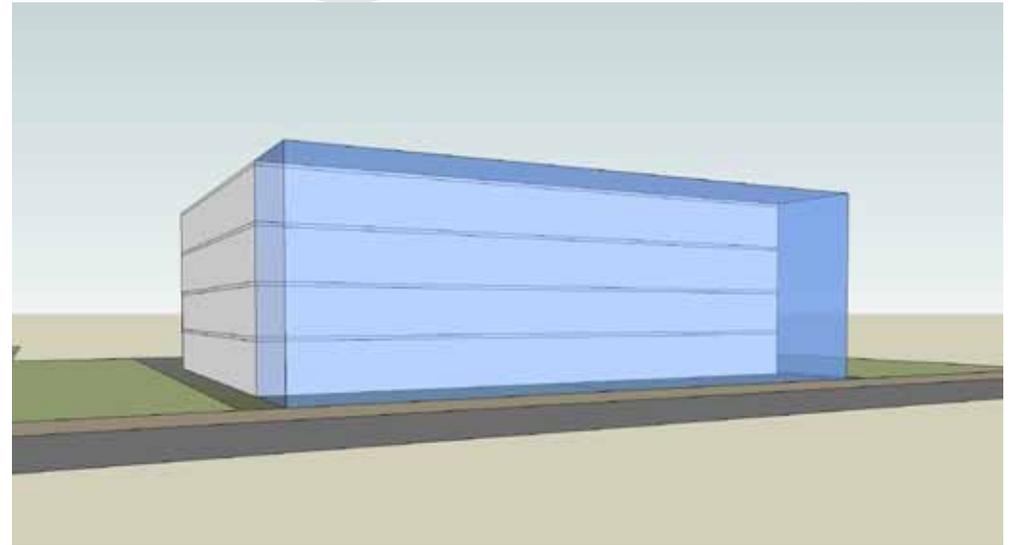
Development Standards

Building setbacks		
Levels 1-4	Front	6.0m (to main face - does not include articulation zone)
	Side	2.0m (OMP or 9.0m where balconies overlook side boundary)
	Rear	18m (OMP)
Building height		
Minimum building height	8.5m (2 storeys) above ground level)	
Maximum building height	14m (4 storeys) above ground level	Refer to the relevant building height area in <i>Figure 6: Mackay city centre building heights</i> on page 26 to determine the maximum and/or minimum building height.
Lot size and dimension		
Minimum lot size	1500m ²	
Minimum frontage	25m	
Miscellaneous		
Plot ratio	1.5	where the site is 2000m ² or greater otherwise 1.0
Floor Height (ceiling to floor)	All levels	Minimum 3m
Maximum building depth	32m (OMP)	
Awning		Footpath awning is not required and shade vegetation is provided in lieu

TYPE 5 BUILDING AREA PLAN



TYPE 5 BUILDING ENVELOPE ELEVATIONS



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