



MACKAY
City Centre Strategy
and urban design principles
July 2017

City planning background

Mackay Regional Council commenced with local planning of the City Centre in 2011. This process has involved a number of stakeholder workshops, the development of strategies and initiatives relating to land use, urban design, public realm, and economic development and investment, and the drafting of the Mackay City Centre local plan code (the “local plan”) within the Mackay Region Planning Scheme 2017 (the “planning scheme”).

The development of the City Centre Strategy and urban design principles document (the “strategy”) will provide supporting guidance to the local plan code. The local planning process triggered the development of public realm concepts and principles, which informed and influenced the 2015 completed City Centre revitalisation project.

The strategy outlines a number of key planning strategies, principles and key themes/directives for the development and progression of the Mackay City Centre for the next 20+ years. These strategies and principles contained within this document are considered to be fundamental planning tools for the development of a vibrant, diverse and liveable modern regional city centre. The strategy moves away from single landuse restrictions and acknowledges and fosters the mixed use nature of the city centre. There is a greater focus on built form outcomes that add richness and character to the urban environment.

A number of amendments have been made to the strategy document and local plan code in consideration of issues raised in recent submissions on the proposed planning scheme. The submissions identified a number of issues relating mostly to built form. The resulting amendments improve the workability, legibility and flexibility of the local plan code to better facilitate development across the Mackay City Centre.

The intention of the strategy is to be a supporting document to the local plan code within the planning scheme providing further guidance and background to the principles and provisions of the local plan code. This will assist developers and investors in understanding and embracing the:

- city vision and underpinning strategies
- city built form / public realm elements
- realise unique design responses like rooftop activities
- mixed use nature of the city both horizontally and vertically
- connectivity, access and movement objectives
- heritage and character elements
- city identity and centre role/function within the local and regional context

Disclaimer

The conclusions and recommendations of this document do not represent Mackay Regional Council (“council”) position or policy. Council’s policy on this subject sits within the Mackay Region Planning Scheme 2017. Council reserves the right to accept, reject or alter the recommendations based on further information, consultation, investigations and future planning scheme amendments. This information does not necessarily represent the views of council.

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This strategy forms part of the Mackay City Centre local area planning and is a guideline to the Mackay City Centre local plan code in the planning scheme.

The strategy has been prepared on behalf of council. The document was written and desktop published by Deicke Richards in conjunction with project partner Lat 27 and with assistance from strategic planning staff at council.

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Contents

Chapter 1 - Introduction	1
Chapter 2 - City vision	3
Chapter 3 - City principles	5
Chapter 4 - City sustainability	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

1



Introduction

Mackay is the regional centre for the broader Mackay Isaac Whitsunday region, and is a significant regional capital for commercial, residential, business, educational and industrial services in northern Australia. Council is committed to increasing the liveability of the region and diversifying and strengthening its economy to create a vibrant, prosperous and diverse city and region for future generations.

The Mackay City Centre (the City Centre) will continue to play an important role in the region by accommodating a highly diverse and intensely developed mix of residential and non-residential activities within a more sustainable, consolidated, cohesive and compact urban environment.

This document is part of an integrated approach to city centre planning, which includes urban design, public realm, integrated transport, economic and revitalisation initiatives, and supports the principles of the Mackay City Centre local plan code of the Mackay Region Planning Scheme 2017.

The Mackay City Centre

The Mackay City Centre is the principal economic centre for the broader region, is one of five regional capitals in northern Australia, and the first tropical coastal city to the north along the Queensland coast.

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, recreate and spend time.
- A place of commerce where people work, innovate, learn and invest.
- A recreation place for living, relaxing, enjoying and entertaining.

By embracing these, the City Centre can develop into a place that

engages with its history, its people, its climate and its setting to become an even more liveable, responsive, engaging and memorable city in Australia.

This document sets out fundamental principles for the development of the City Centre and nominates key interventions and structural elements that need to be developed as the city further grows and matures.

The City Centre covers a large area and includes a number of activity and amenity nodes with a broad mix of land uses. The extent of the City Centre is bounded by Mackay showground / Caneland Central (in the west), Shakespeare Street (in the south), the former rail corridor / Chain Street (in the east) and the Pioneer River (in the north).

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 and urban design principles (the “strategy”) is intended to provide a resource as a guide to the Mackay City Centre local plan code, contained within the Mackay Region Planning Scheme. The strategy outlines a number of key planning strategies for the development and progression of the City Centre for the next 20 years. These strategies are considered to be fundamental planning tools for the development of a vibrant, diverse and liveable modern regional city centre in Australia. The strategy moves away from single use restrictions and acknowledges and fosters the mixed use nature of the city centre. There is 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 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.

The document is structured around the key themes of:

- City vision / City principles - setting a vision and principles for the future growth and development of the city.

- City sustainability - 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.

City Centre population and employment

Permanent residential population

The current population within the City Centre is 4,316. This figure is both encouraging and significant for a regional city when compared to permanent resident populations of other regional and metropolitan cities around Australia. This figure has the potential to almost double over the next 20+ years to be approximately 7,700 - this growth is dependent on future market trends. *The current and potential future population figures represent permanent residents only correlating to existing established development, approvals yet to be constructed, and future development potential and opportunities across the local plan area.*

Employment (commercial, industrial and community)

The current number of people working within the City Centre, across retail, commercial, low impact industry and community sectors, is approximately 14,225 (as at 2015). This figure has the potential to increase over the next 20+ years dependent on future demand for office space, retail and low impact industry. There are a number of sites throughout the City Centre with re-development potential for both commercial and low impact industrial activities. The planning scheme encourages most of the region's office activity to be located in the City Centre.

2



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".

A city for people

1. A focus on making a city for people by providing greater activity, spaces and places, and liveability 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 and increasing community involvement, pedestrian activity, centre diversity, as well as new investment potential.
2. A populated City Centre continues to attract and support a strong permanent residential, visitor accommodation base, and commercial services by offering an urban setting for people which attracts and enhances city living, comfortable pedestrian movement, social gathering and interaction, and the city as a place.

An accessible city

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

A culturally vibrant city

4. The City Centre supports a rich cultural environment, the strength of which increases participation by the regional community in a



Blue river city - view of the City Centre from the Pioneer River

wide variety of events and festivals celebrating its multicultural diversity, heritage, tropical lifestyle, regional produce and artistic talent.

An attractive city

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

A regional capital

6. A city that provides, promotes and develops local and regional business, start-ups and innovators, education and employment opportunities, regional administration and commercial services; hosts large scale events; and encourages diversity to promote the economic sustainability of the city beyond mining.

A sustainable city

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 blue river city

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

An innovative city

9. A city that embraces diverse, landmark and innovative responses to building design and architecture that achieves the desired built form and function outcomes for the City Centre, and increases the longevity of, and tenancy diversity within buildings.

A tourism city

10. A city that embraces and promotes Mackay as a must-see tourist destination - a great place to relax on a tropical holiday and experience the region's natural beauty, islands and reef. The city provides, promotes and supports tourism related development and activities at key activity and amenity nodes that showcases and celebrates the city's natural assets like the blue-water Pioneer River.



3

City principles

Mixed use

- The City Centre is the primary centre within the region that has the greatest and most intense 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, commercial and retail space
 - government administration
 - high and medium density apartments (both short term accommodation and permanent residential accommodation)
 - retirement living
 - recreation, sporting, entertainment and exhibition activities
 - community and health services
 - 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 and amenity nodes and experiences which activate the city day and night
- Public transport services connect to the City Centre both locally and regionally

Design a walkable city for people

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

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



Wood Street

Create high quality places for people

- Create a high quality public realm that is reflective of the climate and the city's aspiration as a major regional centre in Australia
- Provide quality and consistent streetscape treatments including landscaping, street furniture and street lighting that add to the character and identify of the city
- Development optimises its relationship with the public realm experienced in the street environment or public space
- Plan for pedestrian oriented streets that are comfortable, generous, convenient and inviting
- Use Crime Prevention Through Environmental Design (CPTED) principles to maximise passive surveillance of public areas
- Encourage after hours activities such as restaurants and cafes in appropriate locations
- maintain a human scale at street level with towers setback from frontages on key public domain streets with high amenity and/or heritage value.



Pioneer Promenade (Bluewater Trail)

Quality and innovative outcomes in built form and architecture

- Built form outcomes reflect and contribute to the character, history, climate (sun, rain and breezes) identify, and context of the city
- Building design:
 - + considers views and vistas of the city and to natural features
 - + caters for a number of interchangeable uses to extend the longevity and usefulness of buildings and the spaces within
- Building design and appearance is characterised by a variety of high quality, innovative and modern urban design outcomes that contribute to the cityscape of Mackay, whilst achieving the desired built form outcomes for the city
- Where there is a departure from development requirements, building design responds with innovative alternative design solutions that mitigates the non-compliance whilst in keeping with the overall outcomes and principles of the city
- Building height reflects and reinforces the built form intensity and prominence of the City Centre as a major regional city in Australia and assists with the legibility of the city from surrounding areas
- Buildings have a presence on the street that reinforces the unique city grid layout and address and overlook streets and public spaces



Highrise development on River Street

- The local plan code and associated policies 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, single person households, etc)
- Provide opportunities for home based offices and start-ups
- Explore opportunities to provide housing choice and affordability.



Markets

Key themes and directions

The following key themes and directions set out some of the principal ideas and issues for the Mackay City Centre. These ideas set a new direction and shape for the city that have informed and influenced policy for the City Centre.

1. The city core

The city core is the traditional financial district 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. The city core will continue to be the city's financial district and 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 permanent residential and short-term accommodation uses able to be accommodated as well, provided they are located in towers above the podium.

The city core has considerable amenity due to its heritage and character façades, street based retail, café life and tropical verdant landscaping, which is further enhanced by the 2015 revitalisation works in Victoria Street and Wood Street. Refurbishment and/or development 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 Chain Street in the east, through the city core and west to Caneland Central. Ultimately Victoria Street will provide a strong mixed use boulevard that links the city core and Caneland Central. Buildings on the street have a 'Victoria Street' built form character where buildings at podium level are built to the front alignment. Awnings along its entire length of buildings ensure pedestrian comfort to maximise 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. The tallest buildings will generally locate north of Alfred Street in order to maximise residential yields, take advantage of views and increase the number of people living in the city. The City Centre provides a unique opportunity for high density residential living that is a short walk to employment, shopping, community facilities, transport and recreational activities thereby decreasing 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.

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



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. The river's edge has begun to be enlivened through the creation of a number of activity and amenity nodes such as the Bluewater Lagoon, Caneland Park, Pioneer Promenade, Bluewater Quay and Sandfly Creek walk. These 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 key activity attractors should be explored, particularly on the Pioneer River frontage east of Brisbane 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 contributes to the riverscape by providing a generous publicly accessible boardwalk on the riverside of development and allows for active uses and public spaces at ground/river level.



Undeveloped public riverside land should remain publicly accessible, allow for physical connections to the water and be further enhanced as usable public spaces allowing a mix of outdoor activities.

5. Building height intensity transition

The City Centre will contain the most intense forms of urban development in the region. High rise buildings will assist with the legibility of the City Centre to create a visual sense of the city from the surrounding suburbs. This means taller buildings closer to the Pioneer River with building heights transitioning down to lower scale buildings at the southern (Shakespeare Street) and eastern (east of Lawson Street) edges of the City Centre.

6. Connectivity

The City Centre is well connected by north, south and west arterial roads 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. Shakespeare/Sydney Streets and Mangrove Road/River Street provide alternative sub-arterial routes around the city.

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

The Bluewater Trail connects the City Centre to the southern suburbs via 22km of sealed paths, with over half being off-road. The Bluewater Trail is further complemented by the Cross City Link pedestrian and cycling trail that connects Alfred Street (City Centre) to Archibald Street (Paget industrial area) via the former rail corridor. The introduction of a northern link trail across the Pioneer River connecting to northern suburbs, and Bluewater Trail connection points at the southern end of



the Ron Camm Bridge 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.



8. Caneland Central

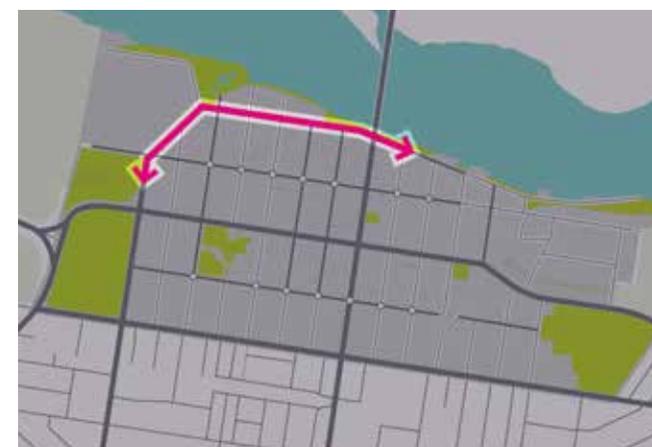
Caneland Central is an internalised mall that attracts significant patronage, both locally and regionally, to the City Centre. The shopping centre creates large amounts of traffic that has little to do with the rest of the City Centre. Shopping centre extensions to the Mangrove Road and Matsuura Drive frontages will encourage buildings to open out these edges with an active frontage. 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. The amenity of the streetscape has been improved through intersection and landscape treatments, and pedestrian crossings. This has improved 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 the City Centre and the Pioneer River and will assist in further calming the traffic movement within the street.



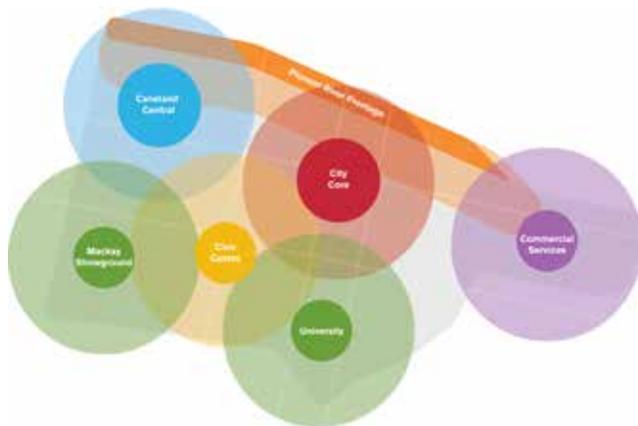
10. City services

The 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. The majority of the area will be retained for low impact industrial activities, 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. This strategy looks to strengthen the links between activity and amenity nodes through public realm enhancements to achieve a more unified, connected and comfortable 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 University City campus to Pioneer River), and Pioneer River riverfront (from Bluewater Quay to Caneland Central).



12. City laneways

The City Centre has an established network of laneways used for rear servicing of buildings. The overall vision is to maintain and enhance a well coordinated fine grain laneway network for pedestrians and vehicles that is safe, well activated, presentable and convenient.

Existing laneways in the City Centre must be retained and where practical, enhanced as public spaces. Development may propose to provide new laneways, including extensions to part laneways, as part of their development. Laneways will continue to provide rear access to sites with street frontage.

Laneways have the potential to contain urban services that are normally located in a street. Laneways must retain existing widths and alignments to accommodate service deliveries and garbage collection. The laneway network will complement the on-street pedestrian pathways further increasing the permeability of, and connectivity within, the city. The benefits provided to pedestrians, business and service vehicles through the existence of laneways ensure the vitality and longevity of the city at street level.





Aerial view of the city centre looking southeast

4

City sustainability

Embedding sustainability

Sustainability is inherent in all aspects of the 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 to increase commuting by

bicycle;

- 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 can deliver renewable electricity for the City Centre and the broader urban area of Mackay as part of its cogeneration facility.

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, has adapted 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. Buildings, public infrastructure and landscaping treatments in the city need to respond to these events to protect both life and property. 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

5



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 principles

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

- The strategic framework for the City Centre tells the story of the city as a place and how it relates internally (i.e. to other parts of the city), and externally (i.e. to the Mackay urban area, the broader region and northern Australia)
- Linking land use, built form, public realm & connectivity outcomes for precincts and activity / amenity nodes
- The structure of the Mackay City Centre local plan code is clear, succinct and avoids duplication
- Only target regulation where it is likely to add value to the process, 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. commercial activities in existing buildings do not require re-assessment) and to encourage and discourage certain land uses - 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

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, accommodation and activities currently located in the City Centre. The City Centre can be formed as an collection of connected neighbourhoods, each with their own focus and function, but work together to achieve a unified city (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 activity and amenity nodes and ample employment opportunities are ideally situated within the City Centre to increase inner city living. It is envisaged that new mixed use commercial, high density residential and short term accommodation will continue to establish within the city core. Development will retain heritage and character buildings and take advantage of potential development incentives to renovate

and rejuvenate city streetscapes. New development not on heritage place sites is encouraged to reflect this character in building facades and detail. It is expected that this will be achieved through modern reinterpretation of character elements rather than simple duplication. The character of the buildings will be representative of the future of Mackay while maintaining respect for the character of the past. Building towers need to consider the character of the heritage facades and public domain by adopting a setback that maintains a wide street profile.

Taller residential buildings (12+ storeys) will be encouraged to develop adjacent to the Pioneer River frontage. These residential uses will most likely gravitate towards the river taking advantage of its amenity. Commercial uses will tend to gravitate towards the city core, Gordon Street and Caneland Central where there is greatest movement of pedestrians and vehicles. However, it is not inconceivable, nor is it undesirable, that high density residential uses occur in the city core or that commercial uses locate outside of the city core.

The City Centre neighbourhood includes the Central Queensland University City campus, Civic precinct and a range of other cultural and community activities that are key elements of a thriving and vibrant City Centre. These elements support the neighbourhood and contribute to the broad range of experiences the City Centre has to offer.

Supporting the City Centre neighbourhood are three other residential neighbourhoods with centres located on Shakespeare Street.

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 including detached houses, low-rise

apartment buildings south of Shakespeare Street and medium-rise (up to 5 storeys) apartment buildings north of Shakespeare Street. With good access to the City Centre, additional medium-rise (5 storeys) residential development north of Shakespeare Street will offer a greater range of housing options in close proximity to the City Centre.

Eastern neighbourhood

The eastern neighbourhood, is centred around local shops 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. Additional medium-rise (5 storeys) residential development west of the former rail corridor will offer a greater range of housing options in close proximity to the City Centre.

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 and low impact industrial uses (including the Gasworks local centre), 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 Mackay Region Planning Scheme 2017 zoning within the City Centre. A single zoning of Principal centre will cover most of the City Centre, with Low impact industry, Mixed use, Medium density residential and Open space zones being used south and east of the Principal centre zone and along the frontage of the Pioneer River.

The entire city is inherently mixed use. That mix occurs both horizontally and vertically. Designating singular use zones of either commercial or residential, to lots or blocks within the city therefore becomes impractical, inflexible and limiting 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 parts of the city does not mean there are no controls over land use. The city can indeed be divided into precincts which sit within the local plan mapping. The precincts set out a preference for certain dominant land uses over others.

Whilst land uses will be mixed and flexible, encouraging a range of activities and services compatible with the needs of a community, the built form will have greater guidance 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 more guidance over built form. Built form controls are specified on a street frontage basis with corresponding building typologies and are discussed further in this document in Chapter 6 - City form.

As part of the planning controls on land uses within the City Centre, a new activity group is included in the planning scheme being 'Centre activities'. This activity group will include a range of uses considered

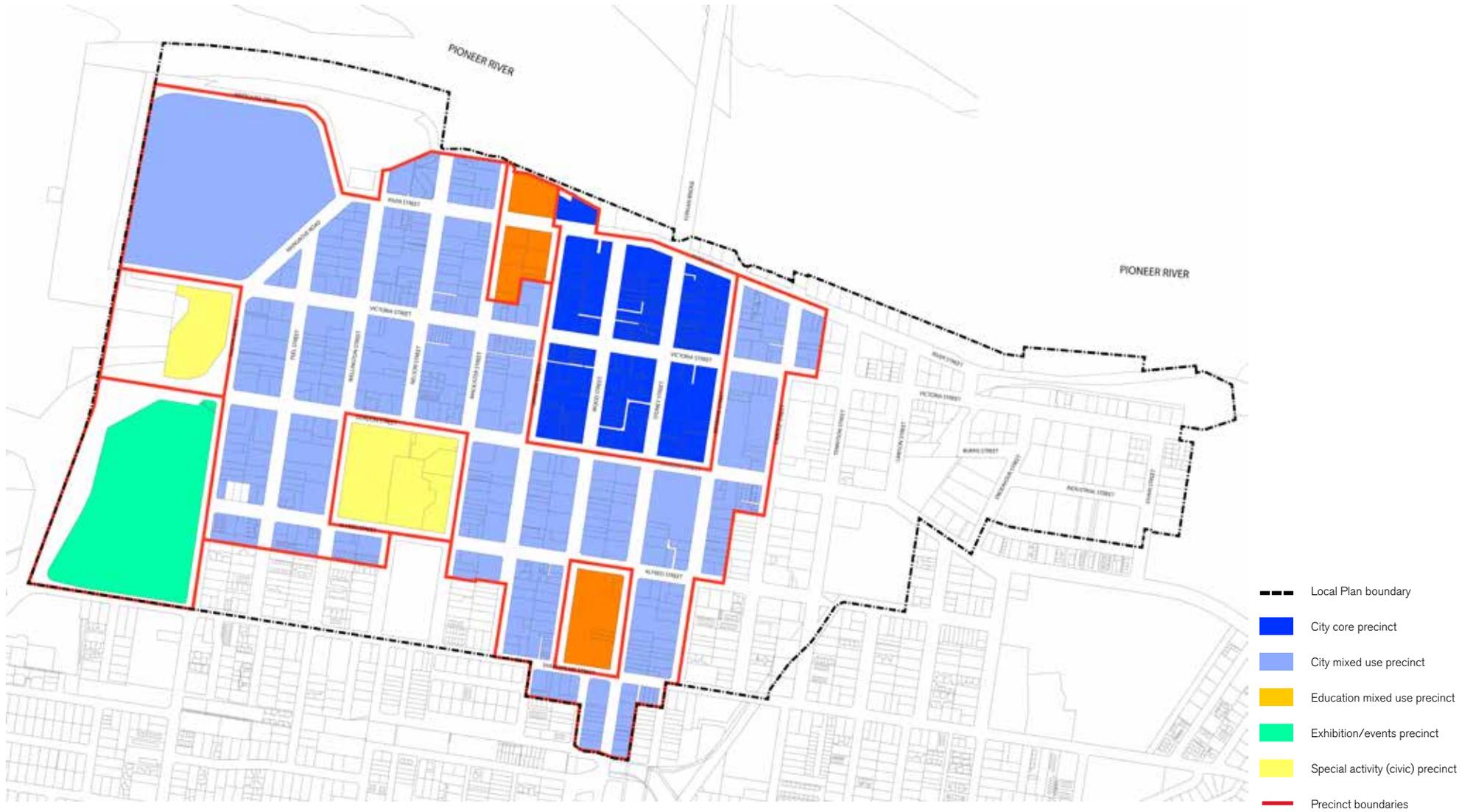


Figure 4: MACKAY CITY CENTRE - LOCAL PLAN PRECINCTS

compatible with and well suited to the City Centre (and other centres). As the City Centre is intended to be inherently mixed use, flexibility has been built into the planning scheme level of assessment to allow commercial 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 'centre activities' 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 each precinct to determine land uses that are compatible and complementary as not all uses will be compatible in all areas. For instance, while nightclubs 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 tenancies within podium levels of mixed use buildings where for instance an office 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 will 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 local plan precinct map. Figure 4 shows the precinct plan for the City Centre. The five precincts, their intents and their relation between one another 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, café's 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, nightclubs, bars and pubs, restaurants and cafes which activate streets both night and day. Permanent residential uses and short-term accommodation may also locate in the city core above podium levels.

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 with opportunities for 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. The built form and public realm achieves high quality, modern urban design that builds on Mackay's unique streetscape and cityscape character.

Gordon Street

Gordon Street is a highly visible road corridor attractive to commercial uses which benefit from high visibility and the movement economy. Therefore, commercial uses with varying building heights along this frontage may continue to predominate this area. However, this should not discount the possibility or opportunity for high density residential or short-term accommodation development to locate on Gordon Street.

Buildings are built up to 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 Civic precinct, Exhibition/events precinct and the City core precinct.

Alfred Street

Development on parts of Alfred Street will be predominantly residential in nature. These residential areas provide an alternative setting from the waterfront area, and will be of a 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.

Caneland Central

Caneland Central is a very important part of the city. It generates considerable economic activity, vehicle movements and patronage within the City Centre. The shopping centres connection to the rest of the city could be enhanced by encouraging the centre to grow towards its edges (Mangrove Road/Matsuura Drive) rather than remain completely internally focused. The Caneland Central site can accommodate commercial retail and accommodation activities.

City living

There is a vast area within the precinct which is conducive to high density residential development, particularly if located adjacent to the Pioneer River.

The northern areas the City Centre will be dominated by more intense built form that capitalises on the considerable amenity the Pioneer River offers, maximises residential yields, and supports city employment and services. Taller thinner buildings up to a maximum of 49m AHD north of Gordon Street and 10 storeys south of Gordon Street will allow development to achieve 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.

Precinct 3 - Education mixed use

The Education mixed use precinct recognises the role that existing educational institutions play in the future of the City Centre. The precinct includes the Central Queensland University City campus (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 and region.

Significant investment in upgrading the facilities at the Mackay showground will continue to occur 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 provide an active interface with the city's western gateway that establishes a memorable sense of arrival into the city.

The relationship 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, major sport and entertainment, and recreation establish within the city - excellent examples can be found in Brisbane and Melbourne and are an important asset and attractor for these cities.

Precinct 5 - Civic

The Civic precinct covers the 'Mackay civic precinct' (includes the Council Administration Building, Artspace regional art gallery, Senior Citizens Hall, Mackay Entertainment and Convention Centre (MECC), Jubilee Park and other associated public space), and the Memorial pool site. It is expected that similar municipal 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. This is supported by council's commitment to upgrading 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 public 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 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 and west 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 Pioneer River may be redeveloped over time for higher uses that take advantage of the scenic amenity provided by the Pioneer River.

The built form within this low impact industrial area will differ from other industrial areas across the 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 / river 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 and experience. This area could potentially be contained within its own precinct once further detailed planning of the area is progressed.

The area south of Gordon Street 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.

Medium density residential zone

There are two areas south of Alfred Street, one to the east of Wood Street and the other to the west of Brisbane Street, which are zoned Medium density residential, Multi-storey medium density precinct (MD3). These areas are predominantly residential in nature with buildings heights up to 17 metres (storeys).

The Medium density areas further support services within the City Centre and contribute towards providing a greater range of housing choice and diversity in close proximity to the City Centre.



6



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*

Built form 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 developed (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 framing 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 streetscape rhythm. Towers in the city core precinct are setback to maintain a wide street profile within key public domain and reduce visual impact to heritage places
- 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 considered 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.
- Thinner buildings – as a response to Mackay's tropical climate, thinner buildings which encourage cross ventilation and access to breezes
- Towers make use of the roof space (including podium roofs) for unique open space and/or recreation purposes such as roof top gardens, restaurants, bars and/or public observation facilities.

City image

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

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

There is considerable potential for further redevelopment along the Pioneer River riverfront, which has a high level of amenity for residential uses given its outlook, location and range of services and activities in close proximity. Council has foreseen this development interest and have been proactive in developing a range of activity nodes along the riverfront connected by the Bluewater Trail. Given the high interest 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 with an eclectic mix of uses. Built forms promote this mix encouraging a range of uses particularly on the ground floor along key movement streets.

A street frontages plan, shown in Figure 8, details built form solutions for the City Centre. The street frontages plan notes where buildings will be required to be built to the street alignment and required public realm treatments (i.e. weather protection over the public footpaths).

Building heights

The building heights represented in Figure 5 reflect the level of potential progression and intensity of the City Centre over the next 20 years.

There are 4 building height areas across the City Centre that rationalises the building heights plan under the superseded Mackay City Planning Scheme 2006. As a general rule, building height decreases with distance away from the Pioneer River. This will see more intense development forms in areas along and adjacent to the Pioneer River and generally north of Alfred Street. 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.

Development is encouraged to maximise opportunities on each site/s and realise the full development potential allowed by the planning scheme - i.e. maximising building height. This will greatly assist in accommodating both high density residential and short term accommodation uses in the City Centre (and region) and achieve a compact, consolidated, sustainable and liveable urban environment within the city.

However, it is also acceptable for development to propose a more modest development that is well below the maximum allowable building height. Small and medium sized developments represent good development outcomes for the city as it contributes employment options and activity.

As the City Centre continues to collect high rise towers, the emerging skyline will become even more visible from the many view points, corridors and vistas in surrounding areas creating a visual attraction. The visual attraction of the city skyline is what often draws people into the city as it creates a sense of curiosity, wonder, vibrancy, activity and excitement.

The maximum building height in the City Centre, set at 49m AHD, is the height of the obstacle limitation surface (OLS) set by the aviation authorities for the Mackay Airport. As the City Centre develops and matures over time, building heights may be reviewed where there is greater developer / market interest to delivering taller buildings and higher yields, but keeping within the 'regional city' context. Developers are required to approach the Mackay Airport operator for further discussions relating to the operational safety of the airport where proposed towers and/or construction cranes exceed the OLS height.

High rise development above 4 storeys does not occur on State Heritage places. Any development on a State Heritage place will be referred to the Department of Environment and Heritage Protection (DEHP).

High rise buildings

High rise buildings are located in areas north of Alfred Street that primarily facilitates the establishment of the City Centre's high density residential, commercial and short-term accommodation 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 32 metres (10 storeys) between Alfred Street and Gordon Street including the city core and Caneland Central, and 49m AHD (12+ storeys) generally north of Gordon Street (to the west of the city core) and Victoria Street (to the east of the city core).

Buildings with heights that exceed 49m AHD will require referral to the Mackay Airport operator and CASA regarding encroachment of the OLS. Buildings and structures cannot breach the Procedure for Air Navigation Services - Aircraft Operations height (PANS-OPS). The PANS-OPS heights for the Mackay Airport can be obtained from the Mackay Airport operator.

Towers above the podium in the city core are setback to:

- highlight podium 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 streets.

Medium rise buildings

Medium-rise buildings are located south of Alfred Street, including the Mackay showground, to provide a built form transition between high rise buildings adjacent to the Pioneer River and low rise buildings south of Shakespeare Street. It is intended that building heights are up to 17 metres (5 storeys) .

Low rise buildings

Low rise buildings are located in the eastern (east of Carlyle Street) low impact industry area 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 south of East Gordon Street. It is intended that buildings heights are up to 12 metres (3 storeys).

Landmark building design

Developers and architects are encouraged to design and provide landmark building/s at prominent locations that fulfils one or more of the following cityscape functions:

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

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 or location making a positive contribution to the street grid layout, riverscape and urban form of the City Centre.

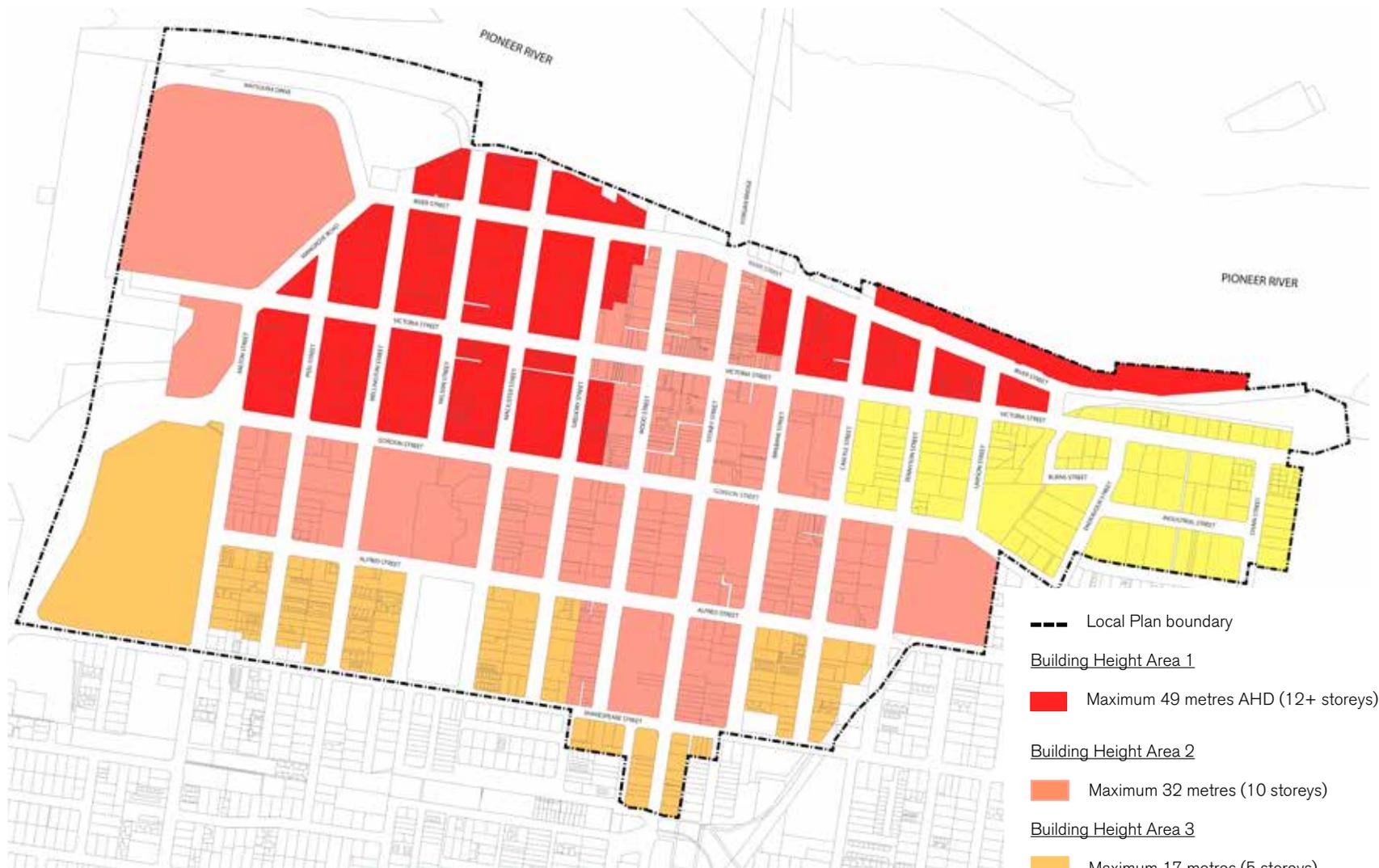


Figure 5: MACKAY CITY CENTRE BUILDING HEIGHTS

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 6.

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 best practice, the separation distance between towers (balcony to balcony) should consider the mitigation of issues such as potential for overlooking, 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 6, 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.

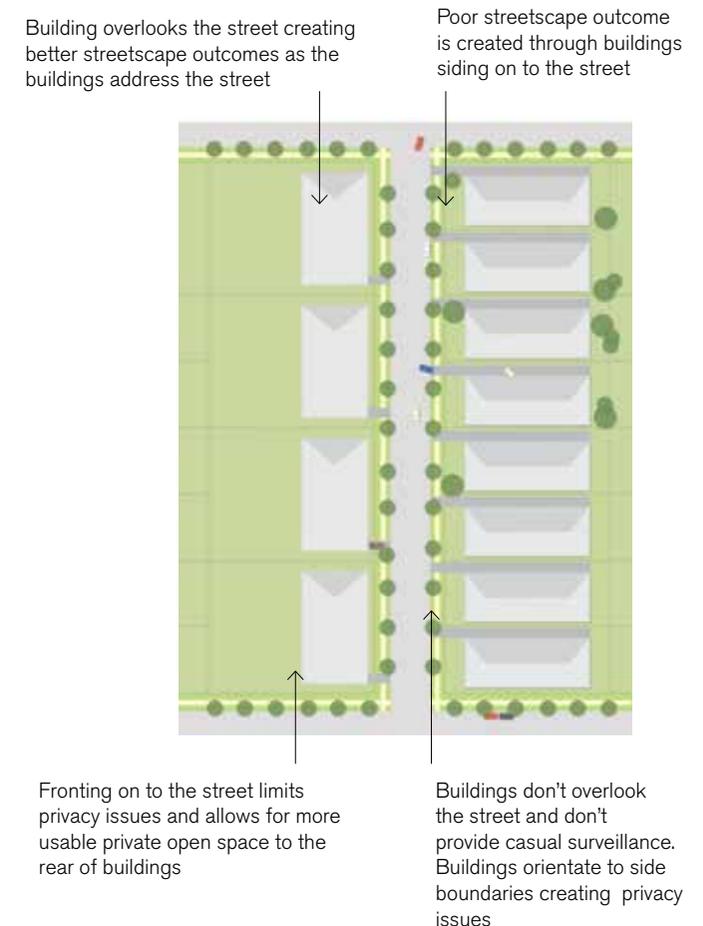


Figure 6: BUILDING FRONTAGE ANALYSIS

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 4m (floor to floor) as shown in Figure 7.

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.

There are 4 frontage types being:

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

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

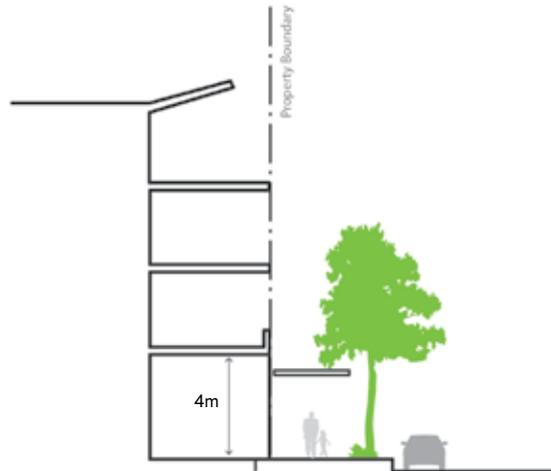


Figure 7: ACTIVE FRONTAGES

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 extends west along Victoria Street. 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 throughout the city core and west along Victoria Street.

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

Victoria Street

- Key link between the city core and Caneland Central
- 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.

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 Pioneer River 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 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

Pioneer River riverfront (east of Carlyle Street)

- Development provides a publicly accessible boardwalk on the riverside of buildings at river level that connects to the Bluewater Trail. The boardwalk is wide enough to allow outdoor dining, through pedestrian movement and other ephemeral activities
- Active uses (shops, restaurants, cafes and the like) are provided at boardwalk level

Wood and Sydney Streets (south of Gordon Street)

- Key link between the city core and the Central Queensland University City 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 University City 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 front 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 Milton, Peel, Wellington, Nelson, Macalister, Gregory, Wood, Brisbane, Carlyle, Tennyson, River, Victoria, Gordon, Alfred and Shakespeare 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



Sydney Street - Town Hall in background



Figure 8: MACKAY CITY CENTRE STREET FRONTAGES

Built form character elements

Character is a complex issue informed by history, economic trends, land use, building function, lot size, and other like factors. What happens in 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: corner chamfers, recessed and sheltered balconies, colonnades, design symmetry, building entrances, continuous streetscape facades and parapets, windows, roofs, materials, awnings and small frontages.

The following section puts some meaning and context into the built form character elements / responses that are found in the city. These elements have contributed to the identity of the city over the decades and it is important to recognise that some still have a place in modern building design and architecture that positively contributes to the Mackay character, identity and sense of place. 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 to guide and inspire modern building design in future city development.

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, by reinterpreting character elements into modern design, 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 prominent elements as an example of appropriate built form responses.



River end of Nelson Street

Chamfered 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 element. This quirk in building technique in some cases does not follow cadastral boundaries. This well established built form character has been included in the building controls of the Mackay City Centre local plan code as a desired built form response. This requirement will apply buildings on all corners throughout the majority of the City Centre 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.



Commercial Building - Cnr Sydney and Victoria Streets



Taylors Hotel - Cnr Wood and Alfred Streets



Australian Hotel - Cnr Wood and Victoria Streets

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. This built form character element may be incorporated in building design within the city core and encouraged in other areas of the City Centre to provide articulation to building facades, particularly on podium levels.



Australian Hotel - Wood Street



McGuires Hotel - Wood Street



Wide Bay Australia House - 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. Colonnades may not be practical under the current legislative regime as it will require the air-space above the road to be closed in strata to allow the building to project into the road reserve. The majority of colonnade examples can be found in the city core. This built form element may 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 office space in the area above the road reserve.



Wilkinson's Hotel - Sydney Street



The Austral Hotel - Victoria Street



McGuires Hotel - Wood 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. This built form character element is encouraged to be incorporated in building design within the city core to continue west along Victoria Street and also in other areas of the City Centre at prominent locations. Building entries should form an important design element in all new development to minimise the need for entrance signage.



Former Post Office - River Street



The Ambassador Hotel - Sydney Street



Old Town Hall - Sydney Street

Streetscapes and parapets

Parapets provide a rich diversity, articulation, visual interest and a human scale to the streetscape. They tend to be highly varied and break up the line of the second storey podium 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. This built form character element is encouraged to be incorporated in building design within the city core continuing west along Victoria Street from the city core, in Gordon Street and in other prominent/landmark areas of the City Centre.



Wood Street looking south



Modern parapet - Wood Street



Hamilton's Building - Victoria 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. This built form character element is encouraged to be incorporated in building design, particularly on podium levels, within the city core and continue along the western extension of Victoria Street to Milton Street, and in Sydney Street (from Gordon Street to River Street). Windows, doors and other openings overlooking the street or public space are a general built form requirement of the local plan code in all circumstances.



Residential units in Peel Street



Catholic Presbytery - River Street



T&G Building - Cnr Wood and Victoria Streets

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.



TAFE Building - Alfred Street



Nelsons - Nelson Street



Latitude apartments - Gordon Street

Awnings

Awnings project over footpaths providing both shade, shelter and most importantly, pedestrian comfort. They are required where pedestrian movement is greatest (i.e. key active frontage streets) 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. Footpath awnings are mandatory for all new developments located on a key active frontage street, and particularly within the city core and the full extent of Victoria Street to Caneland Central.



Hotel Mackay - Cnr Victoria and Wellington Streets



Palace Hotel - Corner of Sydney and Victoria Streets



DGL 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. Roofs on new development must be designed to minimise the visual impact of all mechanical plant and/or lift shafts.



Lanai apartments - River Street



T & G building - Victoria Street



Mackay Court House - Victoria Street

Utilising rooftop spaces

Rooftop space (both top of building and top of podium) is in some cases the least designed and utilised feature of a building - this is more common with high rise development. It is important to realise the value of rooftop spaces as highly desirable, innovative and unique recreation spaces for the building occupants and/or general public to use and enjoy, where large areas at ground level for recreational uses is limited. The Mackay City Centre local plan code encourages the activation of rooftop spaces that incorporates either open space / recreation facilities for the building's occupants; gardens and vegetation; and/or where appropriate and practical, publicly accessible uses such as restaurant, bar, function and/or observation facilities. Recreation opportunities on the rooftops of high rise buildings in the Mackay City Centre can capitalise on the unique views and vistas to the river, coastline and hinterland mountains, and will create a memorable experience as well as being a key point of difference to other regional city centres in Australia.



Rooftop recreation at Lanai apartments - River Street



Rooftop recreation at Fusion apartments - Nelson Street



Rooftop function at the Riviera apartments - Nelson Street

Response to climate

Buildings should represent a genuine response to their setting, climate and context. Buildings must contribute to the Mackay identify 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 at ground level, on roof tops, 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
- 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

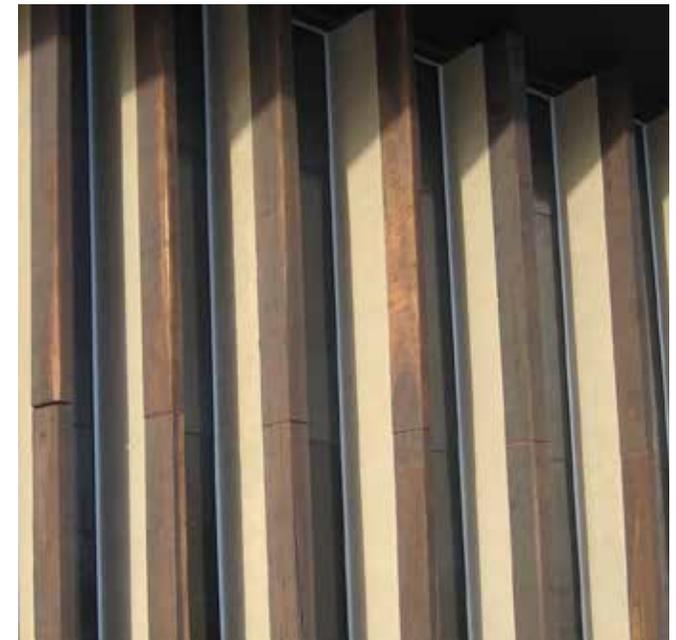
- Design buildings with a relatively narrow plan form across the prevailing wind direction, to facilitate the passage of air through the building
- Windows facing north and east are suitably shielded to exclude the summer sun while permitting the entry of the winter sun
- Windows and balconies facing 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 4 general building typologies as shown in Appendix 2.

The 4 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"

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 5) and street frontage type (shown in Figure 8) 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 maximum building height is 32 metres (10 storeys) above ground level with a combination of shade trees and/or shelter (at pedestrian entrance points) on the footpath.

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 the maximum building height is 32 metres (10 storeys) above ground level 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) above ground level.

Example 3

For development the southwest corner of Alfred and Nelson Streets, the building typology will be Type 3 - "secondary active frontage". The maximum building height is 17 metres (5 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 maximum building height is 49m AHD (12+ storeys) with a footpath awning required.

Example 5

For a building on the southwest corner of Victoria and Tennyson Streets, the building typology will be Type 4 - "low impact industry". The maximum building height is 12 metres (3 storeys) with a footpath awning required.



Figure 9: PERSPECTIVE ILLUSTRATION OF NELSON STREET LOOKING NORTH FROM GORDON STREET TOWARDS VICTORIA STREET



Figure 10: PERSPECTIVE ILLUSTRATION OF VICTORIA STREET LOOKING EAST FROM NELSON STREET TOWARDS THE CITY CORE



Example of built form in the City Centre

Murphy City Centre - Strategy and urban design principles July 2017

7



City movement

Movement strategy and principles

The transport network of Mackay is dominated by private car usage. This is typical of many regional centres 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 as commuting by private car is still convenient with tolerable (small) travel times between destinations.

Mackay's transition to a more sustainable city includes reprioritising movement in the city, placing more emphasis on alternate modes of transport including pedestrian, cycle and bus 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
 - encourages and increases visitation to the City Centre
 - 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 (effective wayfinding)
 - provide safe, comfortable and attractive walking 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 for both commuters and patrons
 - 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

Movement within the City Centre 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

Movement to, from and within the City Centre is based on the following 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 being the highest priority and 5 being the lowest priority):
 1. Pedestrians
 2. Cyclists
 3. Public transport
 4. Service vehicles
 5. 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 on pages 58-63)
- 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.

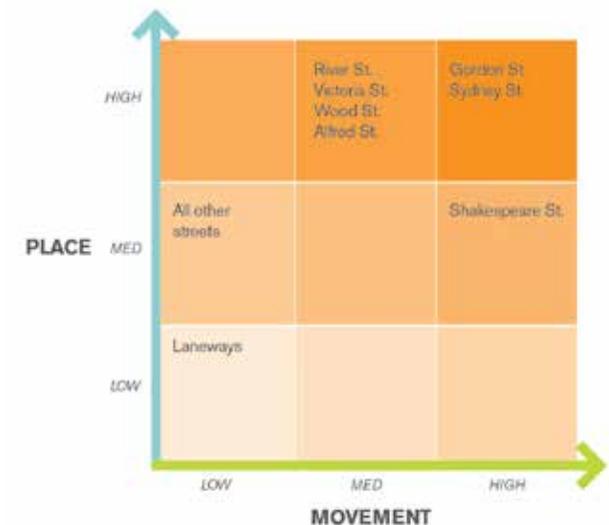


Figure 11: STREET FUNCTION BASED ON PLACE AND MOVEMENT

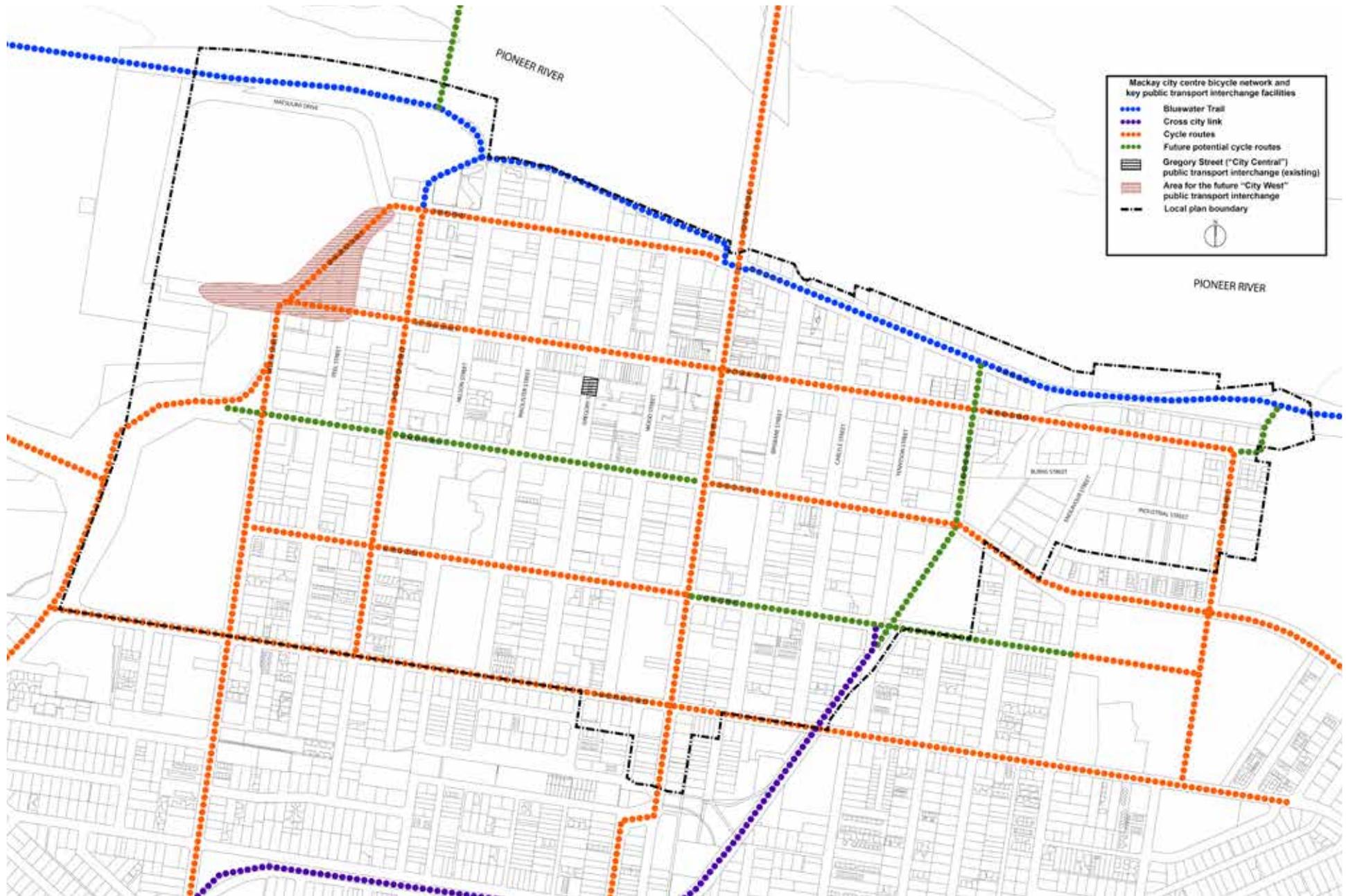


Figure 12: MACKAY CITY CENTRE BICYCLE NETWORK AND KEY PUBLIC TRANSPORT INTERCHANGE FACILITIES

Alternative modes of transport

Given the relatively flat topography of Mackay, the city is an ideal location to be encouraging alternative modes of transport, particularly for both cycling and pedestrian movement. Mackay's hot humid climate, typically from November to April, can however make these alternative forms of transit uncomfortable particularly for walking. Despite this, Mackay has a history of cycling, it just seems that the city has forgotten this in recent times.

Pedestrian movement

Walking will be encouraged as the preferred mode for trips within the City Centre. Everything within the City Centre is 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 shade 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 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 planning scheme provisions and public realm standards for the City Centre.

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 13. 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 other associated integrated transport strategies, initiatives and events seeks to turn this around and get the community back into cycling for both commuting and recreation.



Figure 13: BICYCLE PARKING CNR WOOD & VICTORIA STREETS CIRCA 1950



Figure 14a and 14b: EXAMPLE OF CYCLING ROAD SIGNAGE

The approach to increasing cycle movement is to identify cycling routes to, from and within the City Centre. As a general practice, dedicated cycling lanes are provided where the street layout allows. Where the road layout does not allow for the creation of a dedicated cycle lane, 'share the road' road signs (Figure 14a) and 'cyclist may use full lane' on multi-lane roads, should be installed to increase motorists' awareness and alertness to watch for cyclists on the road. The Queensland road rules allow cyclists to ride within travel lanes, therefore signs like the example given above are warranted.

The Bluewater Trail offers an excellent opportunity to walking and cycling between the City Centre and southern suburbs. The Bluewater Trail is further complemented by the Cross City Link within the former rail corridor connecting the city to Archibald Street. Similarly, the Goosepond Trail offers an off-road cycling route to the City Centre via the Forgan Bridge to Glenella, Mount Pleasant and North Mackay.

A centrally located northern pedestrian / cycling bridge 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. 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

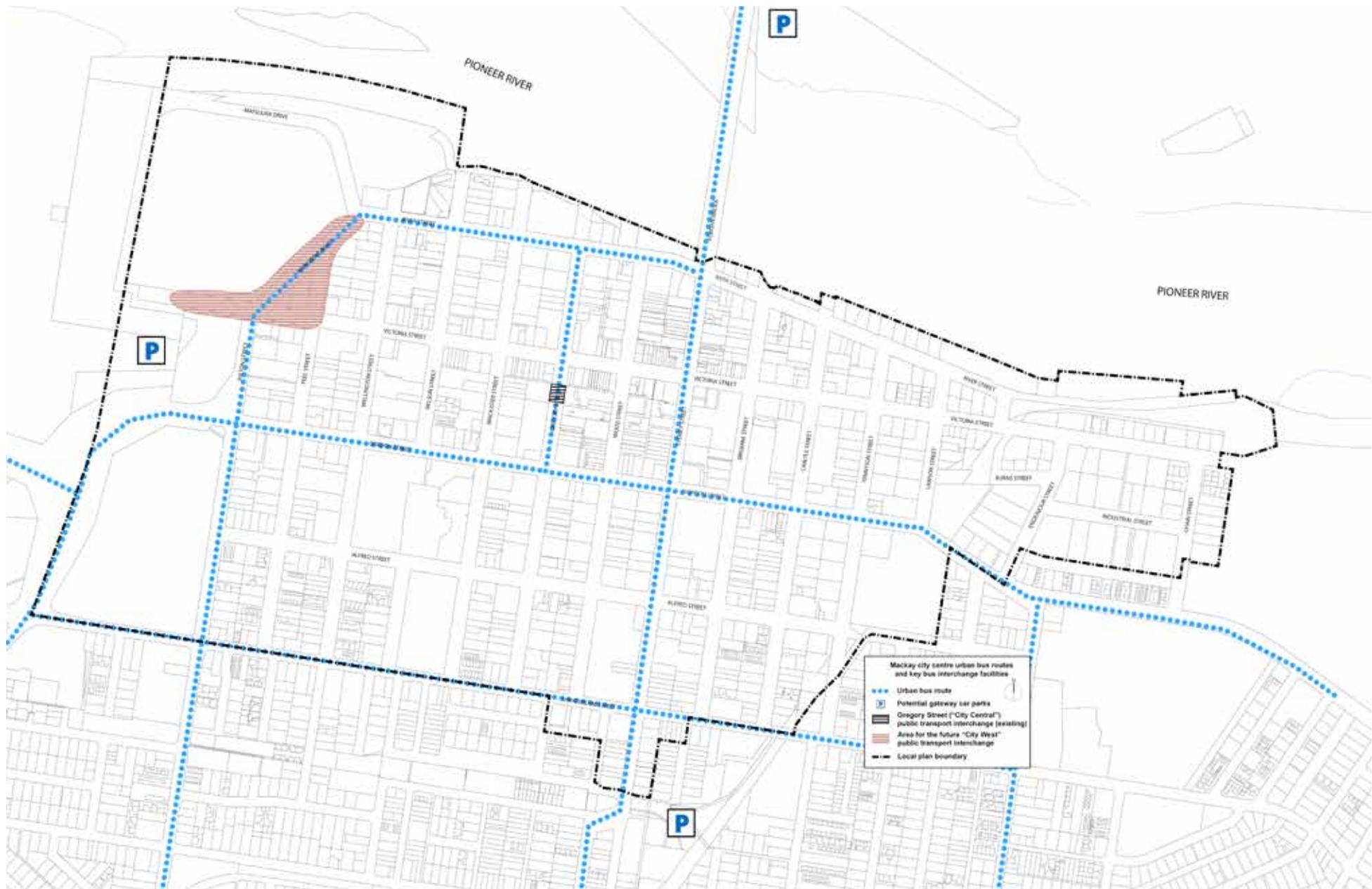


Figure 15: PROPOSED BUS ROUTES AND KEY BUS INTERCHANGE FACILITIES

roads and bridges.

The construction of such a pedestrian / cycle bridge is viewed as a medium to long term project by the Queensland Government.

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 Australian Standards and the Queensland Development Code (QDC). Council has recently opened 2 bicycle storage and end of trip facilities located at the Memorial pool and Bluewater Quay with more facilities planned across the city.

Bicycle facility requirements for residential development is to have at least one secure space per dwelling.

Bicycle facility requirements for non-residential development are:

- 1 secure bicycle space per 250m² of gross floor area. (Secure bicycle parking involves a bicycle locker or bicycle rail in a locked compound/cage). Bicycle parking areas are properly signposted and located adjacent to a safe entrance to the building.
- 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 to cater for walkers, cyclists and other active users.

DTMR have completed improvements to pedestrian / cycle connectivity at the intersections of Shakespeare Street / Nebo Road, at the Mackay showground (Gordon Street / Nebo Road / Bruce Highway). Future connections between the Ron Camm Bridge and the Bluewater Trail will provide safer connectivity on and off the Ron Camm Bridge and an

alternative cycling route to the City Centre avoiding the showground intersection. Further connectivity improvements can be achieved between trails and roads, particularly where the Goosepond Trail underpasses with the Bruce Highway at Mount Pleasant, Bluewater Trail underpasses with the Glenella Connection Road at West Mackay, and from the Peak Downs Highway on to the Ooralea/Botanical Gardens Trail.

Some of the initiatives that have been established and provided by Council / Queensland State Government include:

- regular street sweeping on high bicycle usage roads to ensure safety and convenience for commuters
- Walking and Cycling Advisory committee that looks into issues, events the overall promotion of active modes of transport
- Active Towns project which delivers public bicycle end of trip facilities, off-road paths and a variety of promotional cycling events

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 activity and amenity 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 parking stations. The city circuit bus service can capitalise on the existing urban bus routes 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, city core, Central Queensland University City 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 located on Gregory Street (between Gordon and Victoria Streets) and at Caneland Central (at the 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 Central 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 transit facility to a more central and conveniently accessible location. DTMR in conjunction with Council are in the process of investigating a suitable location / site for the transit facility that is convenient and accessible for users, does not exacerbate traffic issues and has high connectivity to bus service routes both locally and regionally.

Continued improvement to the overall bus service route network, public awareness campaigns, and increases to convenience in terms of travel times and frequency of services to meet the needs of commuters can in turn make public transport a viable, convenient and attractive option of daily commuting in Mackay.

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, built form, land use, public realm and integrated transport strategies. 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
- access and treatment of cyclists
- access and treatment of pedestrians
- coordination for bus and taxi usage and after hours service/movement
- signage of car parking provisions (both on and off street)
- management of congestion and traffic flows.

On street parking

The non-availability of on-street parking is perceived as an issue for the City Centre. To ensure adequate availability of on-street parking in the City Centre, regular reviews of regulated time limits will ensure times meet 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 commercial activity.

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;
- balance long stay and short stay requirements including locational requirements for both;
- in the long term, investigating long stay parking options for the City Centre, intended for all day commuter parking that is serviced by the frequent city circuit bus service.

A possible modified parking regime incorporating the establishment of long stay parking stations on the periphery of the city as shown in Fig. 16, which may require further refinement.

The longer term parking strategy to 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 1-3 hours in the city core and 3 hours within other areas of the City Centre
- convert Council parking stations within the city core to benefit short stay parking (3 hours max), with paid parking targeted at longer stays
- 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

Council operates an effective electronic parking regulation system using number plate recognition software with a camera mounted to a car.

Off street 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.

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 areas. 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 a longer time period.

Townsville in comparison is proposing a rate of 1 space per 50m² 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 use public transport.

Parking rates within the City Centre have been standardised across uses and in some cases reduced. Accordingly, the following car parking rates are prescribed in the Mackay City Centre local plan code (Mackay Region Planning Scheme).

Centre activities, low impact industry and service industry

1 space per 50m². For uses in existing buildings where no additional floor space is proposed, no additional parking will be required from what currently exists on site.

Residential

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

Short term accommodation

- 1 space per 2 accommodation units, or
- for serviced units containing kitchen and/or laundry facilities:
 - + 1 space per unit / key containing 1 or 2 bedrooms
 - + 1.5 spaces per unit / key containing 3 or more bedrooms

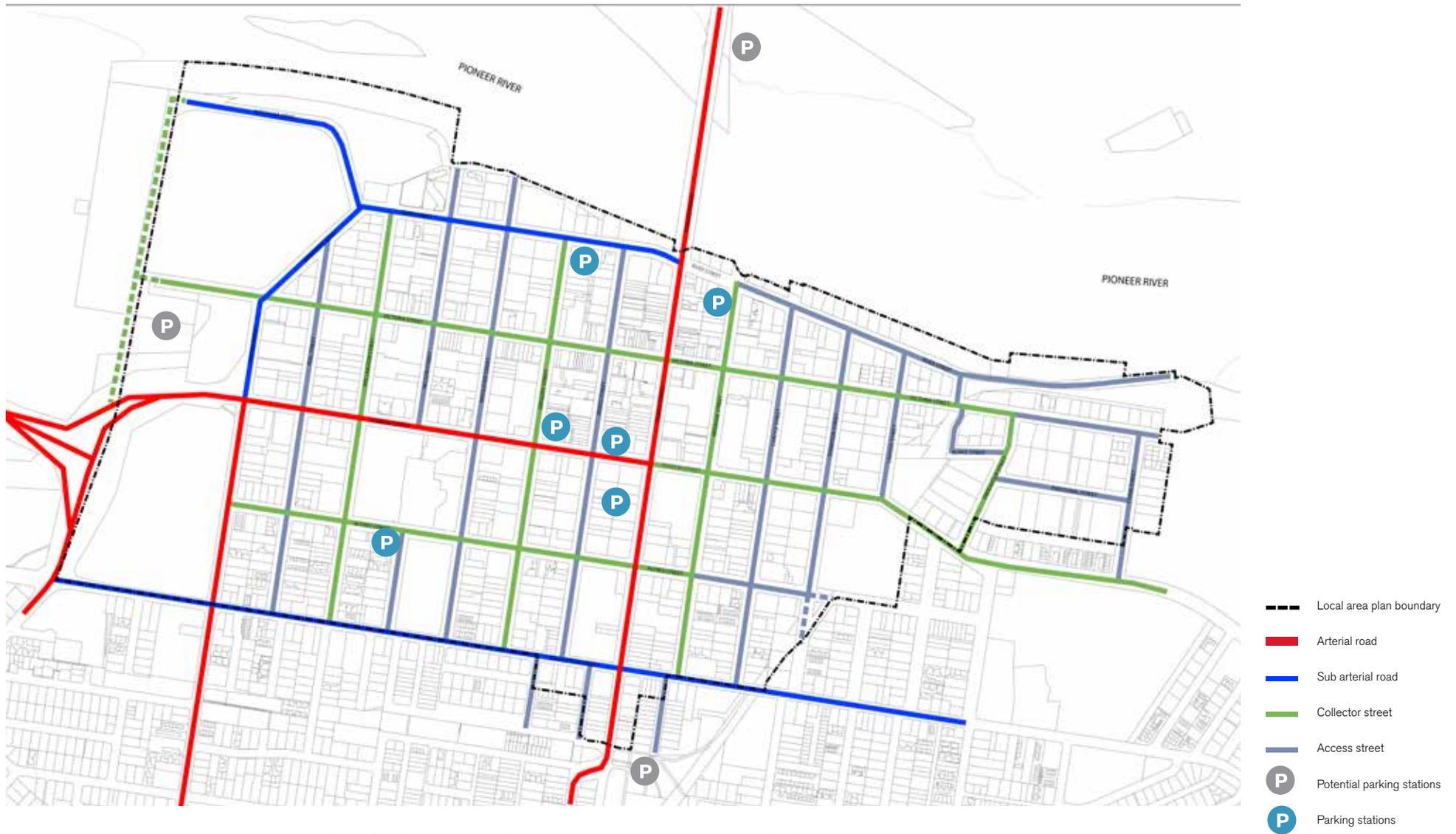


Figure 16: MACKAY CITY CENTRE STREET CLASSIFICATION & EXISTING/POTENTIAL PARKING STATIONS

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 provided solely for the movement of vehicles, 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 access and comfort is an important part of the design philosophy for streets in the City Centre.

To assist pedestrian movement, all streets within the City Centre have footpaths on both sides of the road reserve. Footpaths have adequate ramps at all kerb corners for pram access and cater for people with disabilities. Signalised scramble crossings at the intersections of Sydney/Victoria, Wood/Victoria, Gregory/Victoria, Sydney/Gordon and Wood/Gordon should be installed to assist with omni-directional pedestrian flow across these intersections.

Street lighting that adequately lights the footpaths is 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, is designed to encourage the activities intended to take place within it. Streets are 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. 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.

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 - this may extend to Sydney Street (between Gordon and River Streets); 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 16 on page 53 for relevant street classifications). The road cross-sections on pages 58-63 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



Bicycles parked in Wood Street

City Centre laneways

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, parking and in some instances after hours recreational / entertainment activities.

Laneways in the City Centre are viewed as important finer grain elements that can provide many functions and experiences. Therefore, it is important to retain existing laneways with the potential to explore secondary uses that introduce new experiences within the city. The overall vision for laneways is to maintain the existing fine grain network of laneways for pedestrians and vehicles that is safe, well activated, presentable and pleasant to use. Development may opt to extend the network of laneways across the City Centre as part of the proposed development.

The existence 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. This allows street frontages to be continuous along important pedestrian routes without the interruption of access driveway crossovers. The streetscape is more attractive when it is not broken up by driveways. 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.

Principally, the strategy is to:

- retain existing laneways - width, alignment and primary function
- allow rear access, servicing, loading and collecting to continue
- allow permeability of, and connectivity within, the City Centre via use of laneways that promotes pedestrian use and activity
- provide 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).

Where laneways are proposed by development, the following principles apply:

- the width of a laneway is no less than 4m and no greater than 5 metres. In the case of an extension to an existing laneway, the extension width matches the existing laneway
- 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 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.

As the City Centre grows and matures over time, 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 patronage increases.



Eighth Lane - off Wood Street

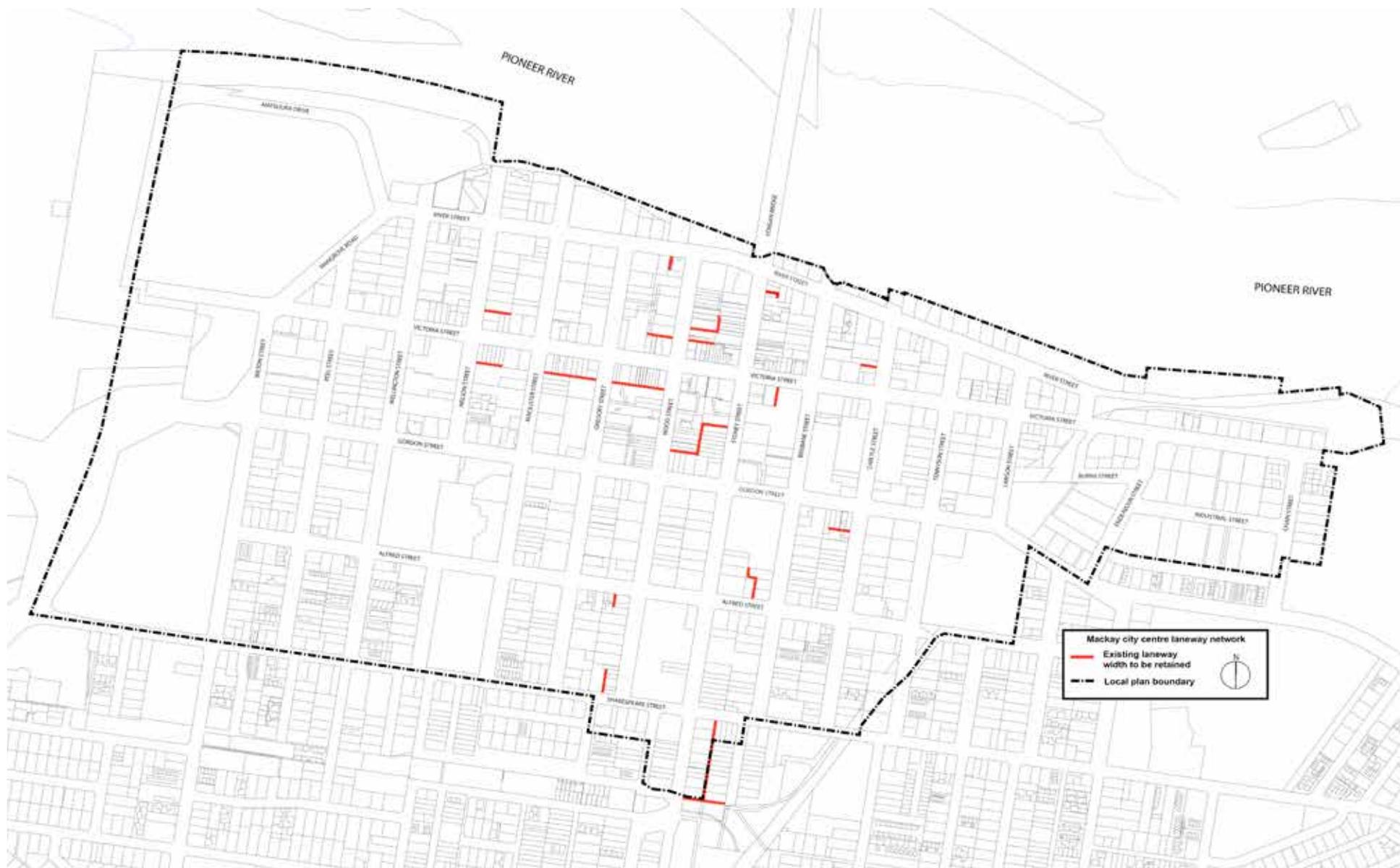


Figure 17: MACKAY CITY CENTRE LANEWAY NETWORK

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 duplication of the Forgan Bridge and additional lanes into the city off the Ron Camm 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 scramble crossings at key intersections to improve pedestrian movement across these streets.

Buildings along these streets are generally built to the alignment with continuous frontages and awnings over footpaths. Building design at ground level may opt to set back the ground floor to achieve a wider footpath / building entrance and facilitate footpath trading. The existing road layout cannot accommodate a cycle lane in each direction, however cycling awareness signage can alert motorists to the likely presence of cyclists and increase safety.

Access from side streets will be encouraged to gain access to properties fronting arterial roads like Gordon Street. This is a highly ceremonial and visually important street with a 4 metre median allowing for turning lanes and deep planting and pedestrian refuge when informally crossing mid block.

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 kerb side lanes
Bus route	Yes
Pedestrian crossings	Intersections
Posted speed	60 kph

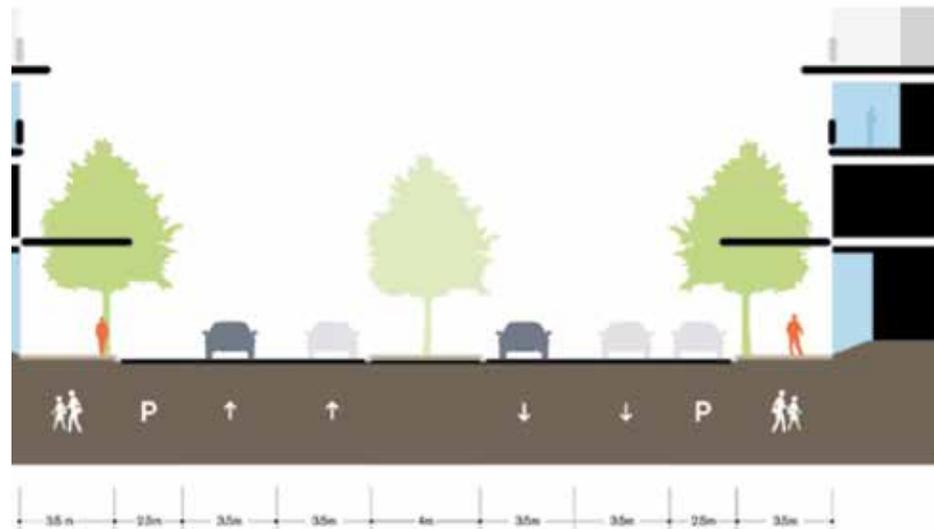
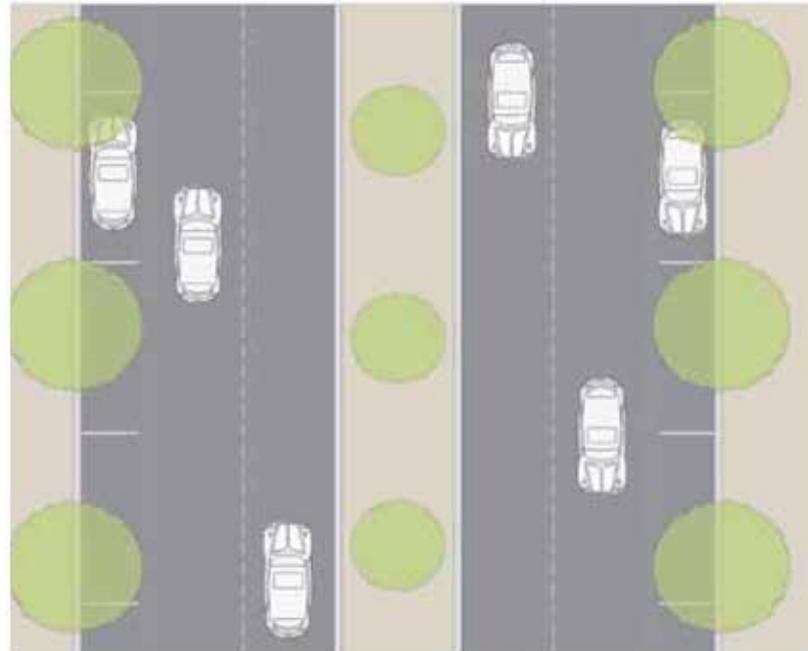


Figure 18: ARTERIAL ROAD CROSS-SECTION

Alternative cross-section to achieve wider footpaths

This street cross-section can apply to streets where there is a greater desire to facilitate footpath trading, activate of the streetscape, provide a verdant tropical landscape character particularly within the median strip, whilst maintaining some on-street parking.

The street layout includes generous 5 metre wide footpaths on either side of the street with parallel parking. There should be enough room for a dedicated cycling lane in either direction.

Reserve width	30 m
Designated cycle lanes	Yes (in each direction of travel)
Median	5 m
Median strip treatment	Landscaped
Footpath	5 m
On street parking	2.5 m wide kerb side lanes or 6 m centre median
Bus route	No
Pedestrian crossings	Corners and intermediate
Posted speed	30 kph

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

Centre median parking with larger shade trees may be provided in lieu of parallel parking. This would be more conducive to footpath trading as it increases the separation between trading and parking vehicles and creates a more pleasant footpath dining experience by decreasing vehicle noise and exhaust fumes next to the footpath. The cycle lane is included on the far left of each travel lane.

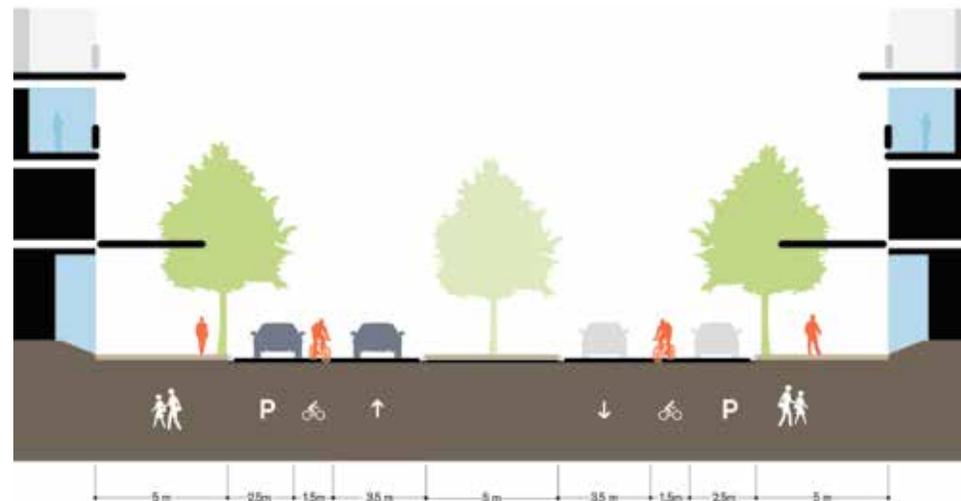
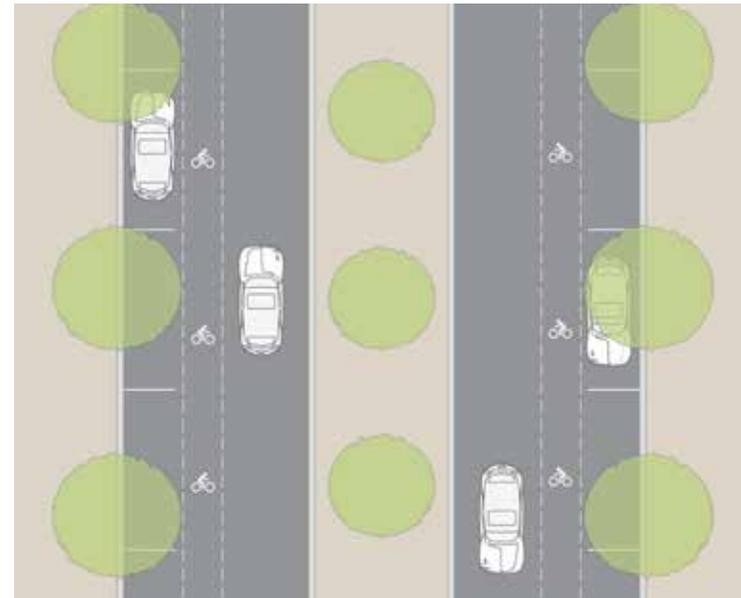


Figure 19: ALTERNATIVE ROAD CROSS-SECTION TO ACHIEVE WIDER FOOTPATHS

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.

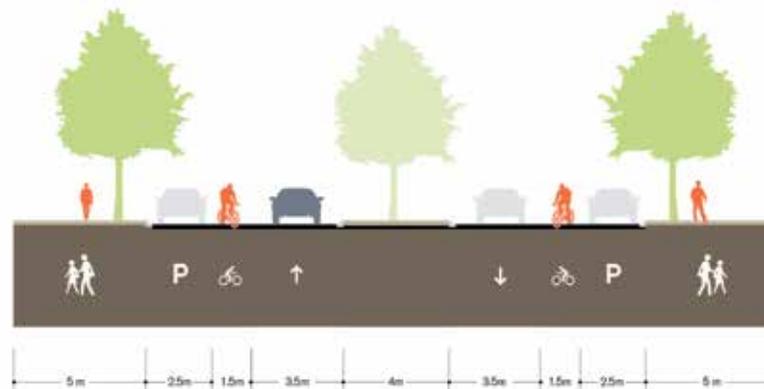
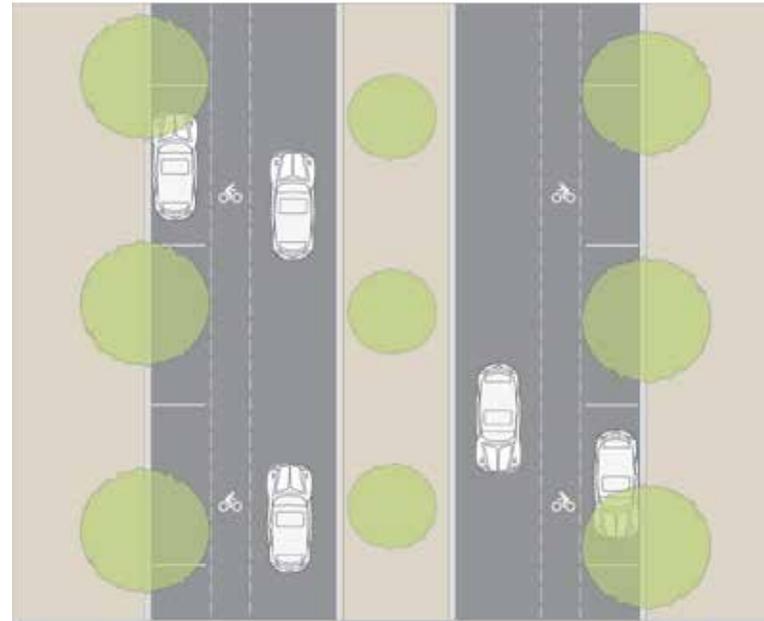


Figure 20: SUB-ARTERIAL ROAD CROSS-SECTION

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 kerb side lanes and 6.0m centre median parking
Bus route	Yes
Pedestrian crossings	Corners and intermediate
Posted speed	40 kph (30 kph on Victoria Street between Brisbane and Milton Streets)

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.

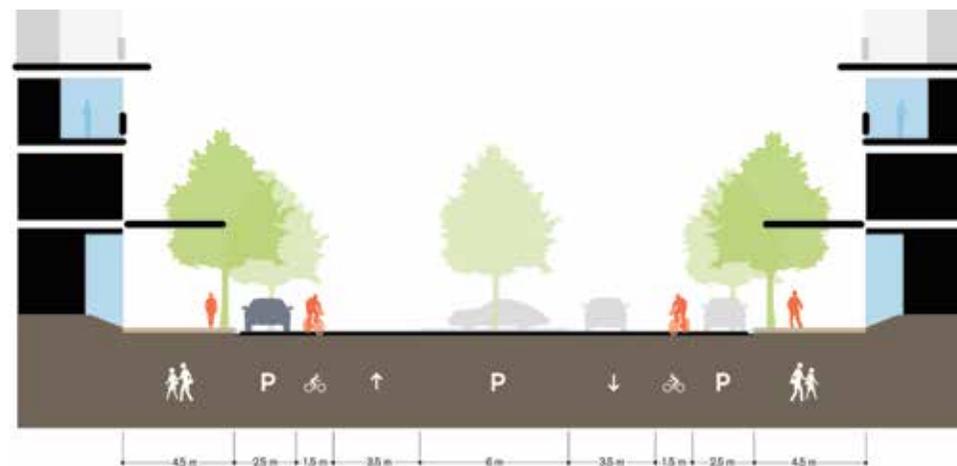
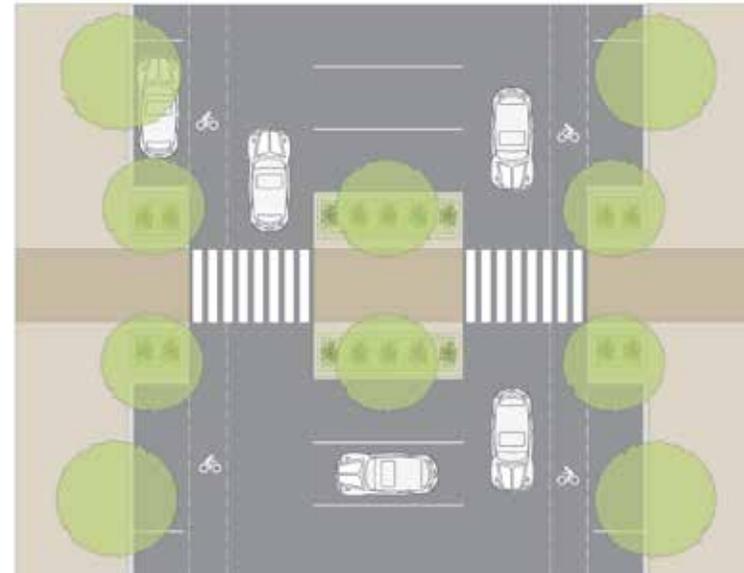


Figure 21: COLLECTOR STREET CROSS-SECTION

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 kerb side lanes and 6.0m centre median parking
Bus route	No
Pedestrian crossings	Corners and intermediate
Posted speed	40 kph (30 kph for streets in the city core)

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.

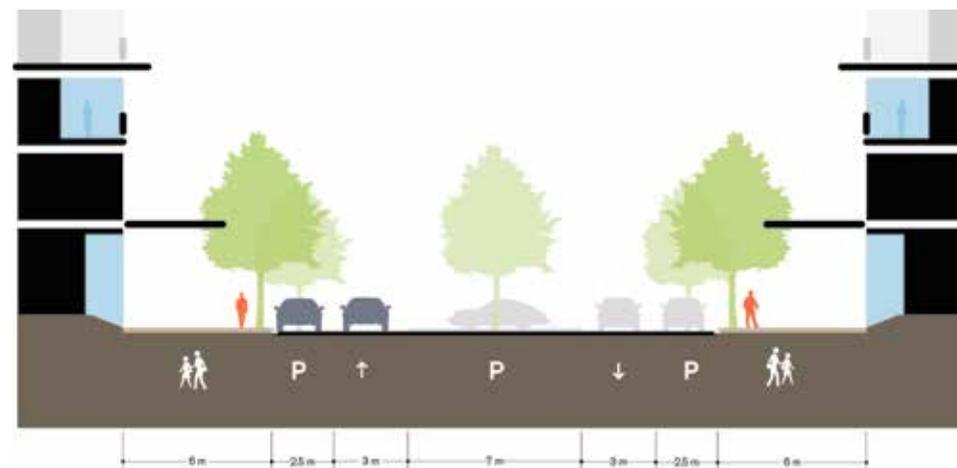
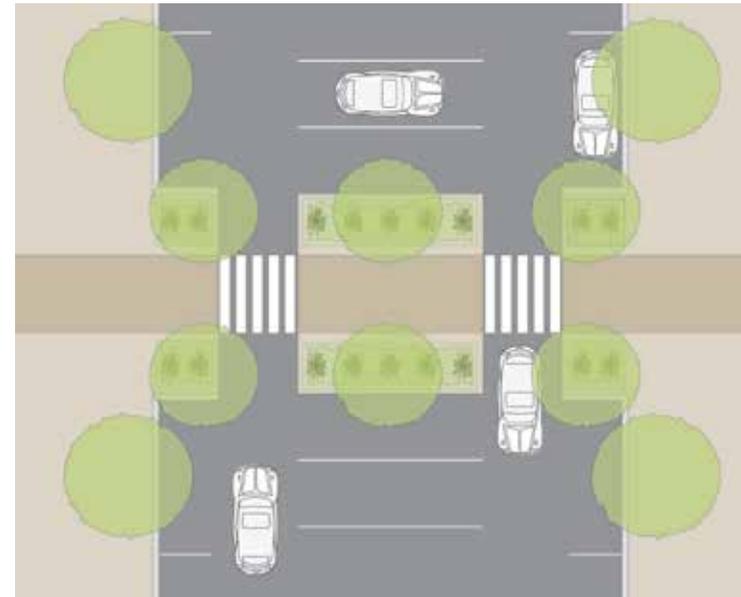


Figure 22: ACCESS STREET CROSS-SECTION

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.

Development provides openings to laneways and minimises blank walls.

Reserve width	Between 4 and 5 metres
Movement lanes	Single lane
Designated cycle lanes	No
Median	No
Footpath	Shared space
On street parking	No
Bus route	No
Pedestrian crossings	Shared space
Posted speed	10 kph

Existing laneways will be retained as they play an important servicing role within the City Centre. Existing laneway width and alignment must be retained. It is unlikely for existing laneways to be widened due to heritage facades.

Development may opt to provide a new laneway. New laneway width is a minimum of 4 metres, maximum 5 metres.

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Appendix 1 – Glossary of other terms and acronyms

Active building facade – relates to built form elements such as doors, windows, balconies, awnings and the like. 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 activities – the following QPP land uses form a land use cluster for centre activities. These land uses include:

- Bar
- 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
- 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 23).

Dedicated road – any road dedicated to be road reserve 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. All zones mentioned in this document are compliant with the latest version of QPP.

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 8 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 that minimise disruptions / impacts to the public realm or where possible access from rear laneways.

Secondary active frontages - means buildings with a secondary active frontage as noted on *Figure 8 Mackay city centre street frontages* that:

- orientate toward and 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 a combination of shade (street trees) and shelter (particularly at pedestrian entrances)
- must be respectful of the public realm
- incorporate car parking that is located below ground or where car parking is provided at grade or within the podium, the building is to be well-designed to soften the visual impacts of parking areas.
- 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.

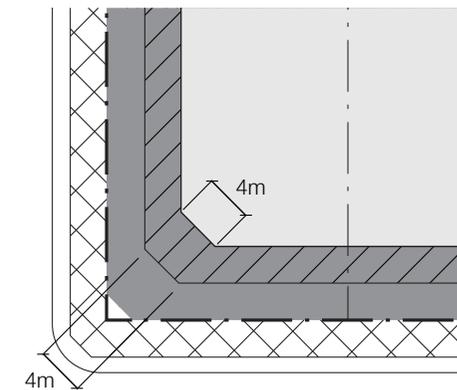


Figure 23: BUILDING CHAMFER DETAIL

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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 of the 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, building towers 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 and human scale of the city core and Victoria Street.

A building height of up to 10 storeys may be achieved within the city core precinct. Some areas allow building height up to 49m AHD.

Building design:

- respects and has minimal visual impact on heritage buildings;
- on prominent sites (at street intersections) built form presents higher quality architecture and design.

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

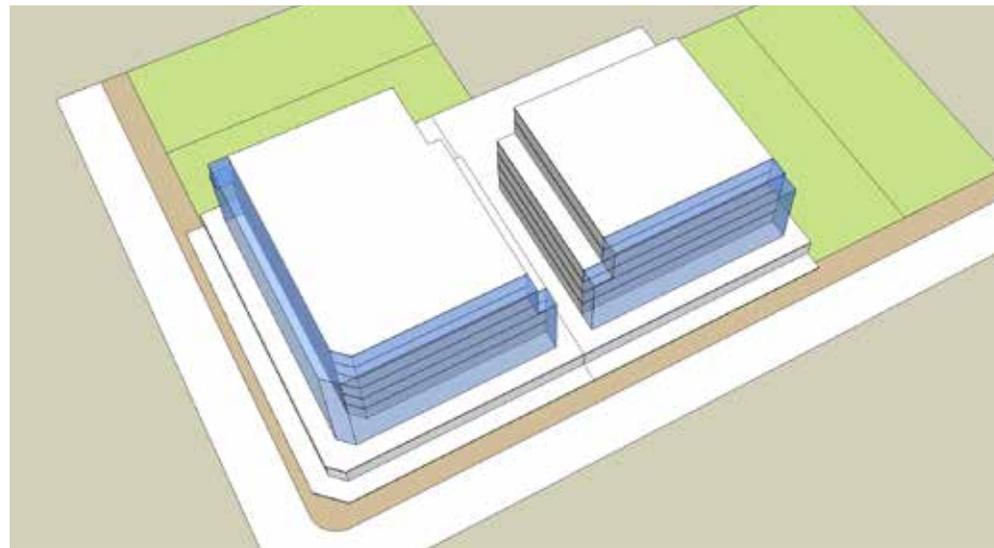
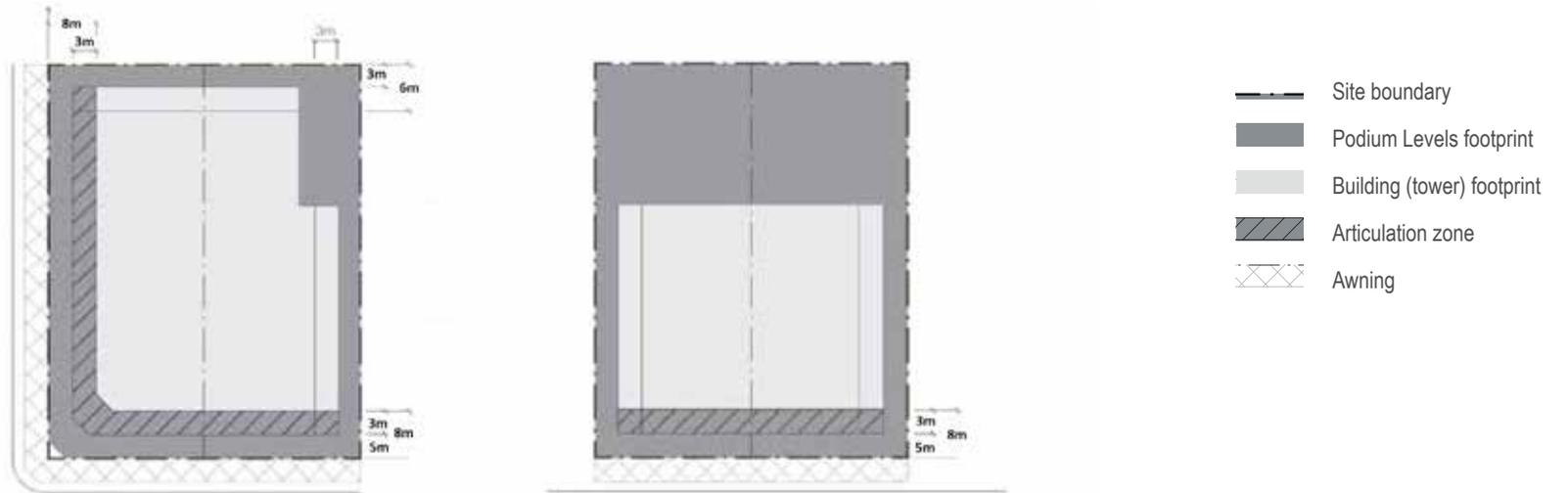
High rise development above 4 storeys does not occur on state heritage listed buildings/sites.

Sites with frontage to Victoria Street (between Gregory Street and Milton Street) can have a maximum building height of 49m AHD (12+ storeys).

Development Standards

Building setbacks		
Podium levels (maximum 2 storeys)	Front	0m
	Side	0m
	Rear	0m
Levels 3-6	Front	5m (outermost projection - OMP) and 8m (wall)
	Side	3m (OMP or wall)
	Rear	3m (OMP or wall)
	Laneway	3m (OMP or wall)
Levels 7 and above	Front	5m (OMP) and 8m (wall)
	Side	6m (OMP or wall)
	Rear	3m (OMP or wall)
	Laneway	3m (OMP or wall)
Building height (does not include any basement levels)		
Maximum building height	32m (10 storeys) above ground level to 49m AHD (12+ storeys)	Building height up to 49m AHD may be achieved in the City Core precinct dependant on design merit and consideration of local and state heritage places (buildings). Refer to the relevant building height provisions in Figure 5: Mackay City Centre Building Heights to determine the maximum building height.
Maximum building height if involving a state heritage place	14m (4 storeys) above ground level	
Recommended lot size and dimension		
Minimum lot size	1500m ²	
Minimum frontage	25m	
Miscellaneous		
Floor height (floor to ceiling)	Ground level	minimum 4m
	Level 1	minimum 3.3m
	Level 2 and above	Determined by building designer
Maximum building length	60m (OMP)	
Maximum floor plate (above podium)	Commercial	1,500m ² (in any single tower)
	Residential	1,500m ² (in any single tower)
Awning	Continuous	All frontages (min awning width of 3m)
Corner truncation	All street corners	4m x 4m to be dedicated as road reserve

TYPE 1 BUILDING AREA PLANS



TYPE 1 BUILDING ENVELOPE ELEVATIONS

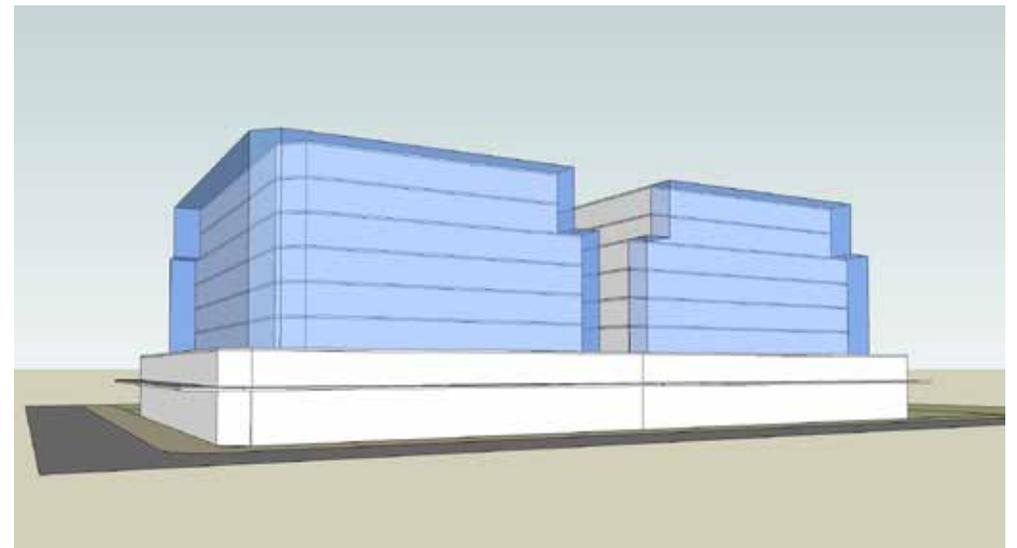




Figure 24: T&G BUILDING ON THE CORNER OF WOOD AND VICTORIA STREETS



Figures 25: EXAMPLE OF HERITAGE BUILDING REDEVELOPMENT - POTENTIAL REDEVELOPMENT OF T&G BUILDING

Type 2 Key active frontage - city centre frame

Description

This building typology applies to key active streets in the City Centre area framing the city core precinct. 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 Lawson Street and Milton Street) and Sydney Street (south of Gordon Street), Alfred Street (between Wood Street and Brisbane Street), Victoria Street (between Brisbane and Burns Street), southern side of River Street west (between Gregory Streets and Mangrove Road), River Street east (between Brisbane Street and Lawson Street), Pioneer River frontage (between Carlyle Street and River Street boat ramp), 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 49m AHD (12+ storeys) in order to maximise residential density and take advantage of the scenic amenity of the Pioneer River and nearby coastline.

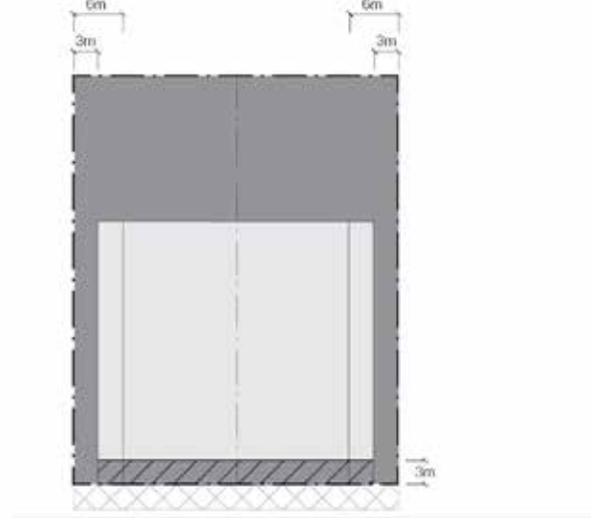
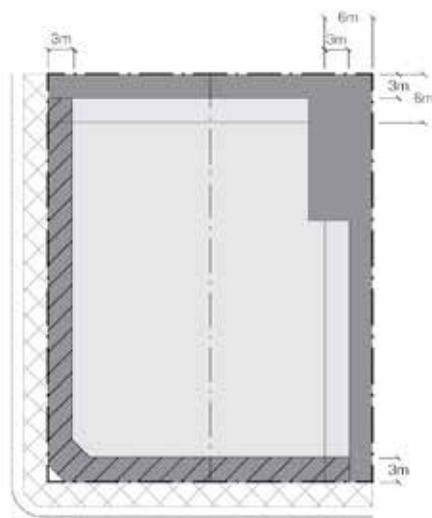
Buildings located on the southern frontages of the City Centre particularly north of Shakespeare Street may have a maximum of 5 storeys in height with a single level podium which defines the base of the buildings.

Maximum buildings heights for this building typology are dependent on the height provisions *Figure 5: Mackay City Centre building heights*.

Development Standards

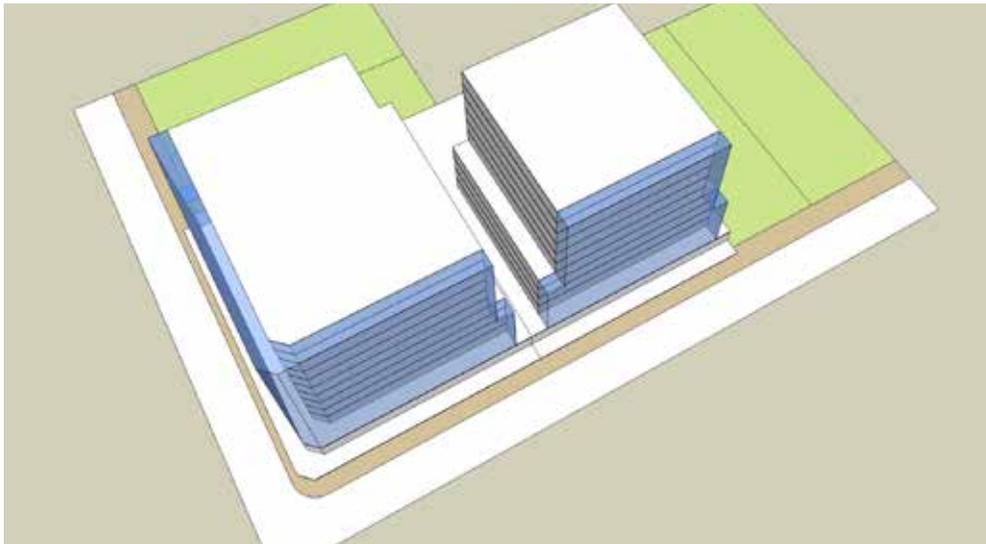
Building setbacks		
Podium levels (maximum 2 storeys)	Front	0m
	Side	0m
	Rear	0m
Levels 3-6	Front	0m (OMP) and 3m (wall)
	Side	3m (OMP or wall)
	Rear	3m (OMP or wall)
	Laneway	3m (OMP or wall)
Levels 7 and above	Front	0m (OMP) 3m (wall)
	Side	6m (OMP or wall)
	Rear	3m (OMP or wall)
	Laneway	3m (OMP or wall)
Building height (does not include any basement levels)		
Maximum building height	32m (10 storeys) above ground level to 49m AHD (12+ storeys)	Refer to the relevant building height provisions in <i>Figure 5: Mackay City Centre building heights</i> to determine the maximum building height.
Recommended lot size and dimension		
Minimum lot size	1500m ²	
Minimum frontage	25m	
Miscellaneous		
Floor height (floor to ceiling)	Ground floor	Minimum 4m
	Level 1	Minimum 3.3m
	Level 2 and above	Determined by the building designer
Maximum building length	60m (OMP)	
Max floor plate (above podium) - for buildings greater than 4 storeys	Commercial	1,500m ² (in any single tower)
	Residential	1,500m ² (in any single tower)
Awning	Continuous	All frontages (min awning width of 3m)
Corner truncation	All street corners	4m x 4m to be dedicated as road reserve

TYPE 2A BUILDING AREA PLAN (2 storey podium)

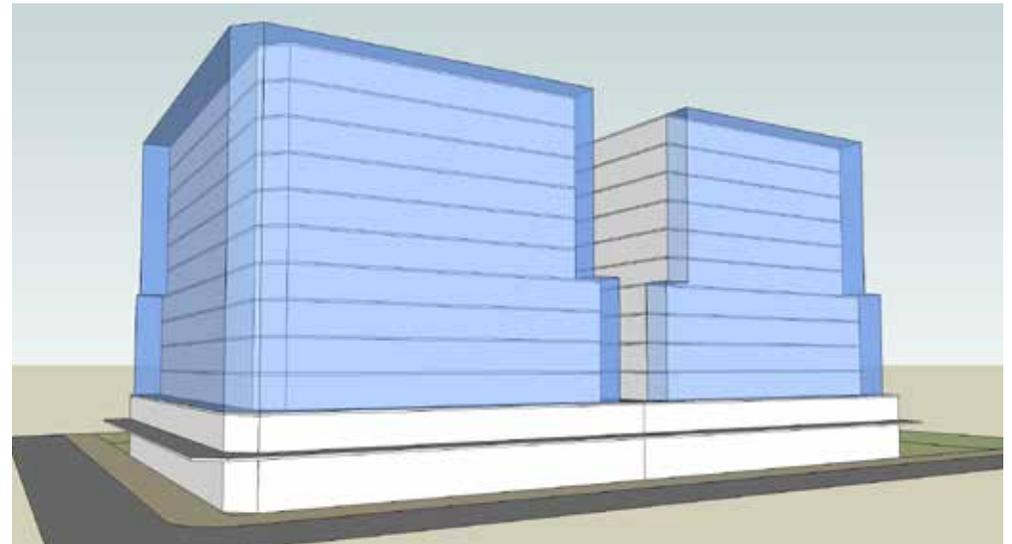


LEGEND

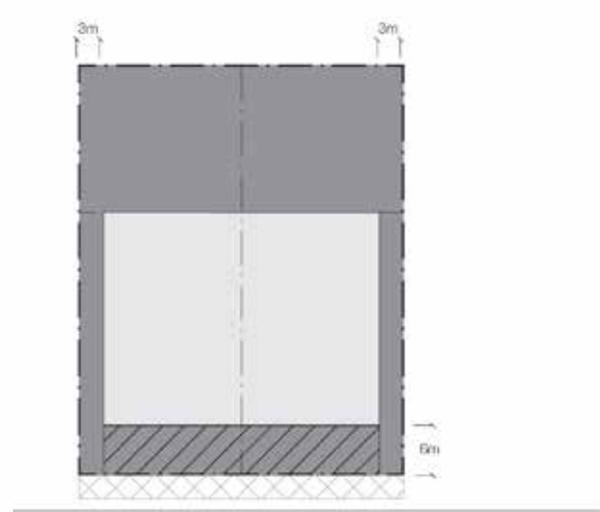
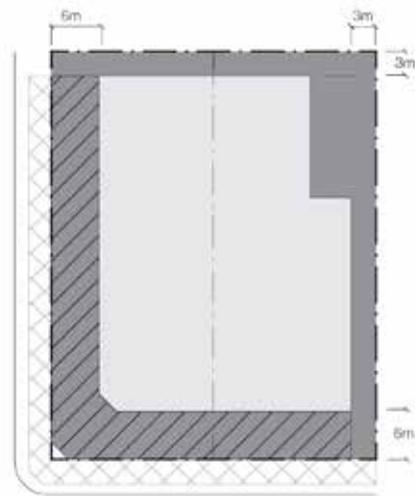
-  Site boundary
-  Podium Levels (max 2 storeys)
-  Building (tower) footprint
-  Articulation zone
-  Awning



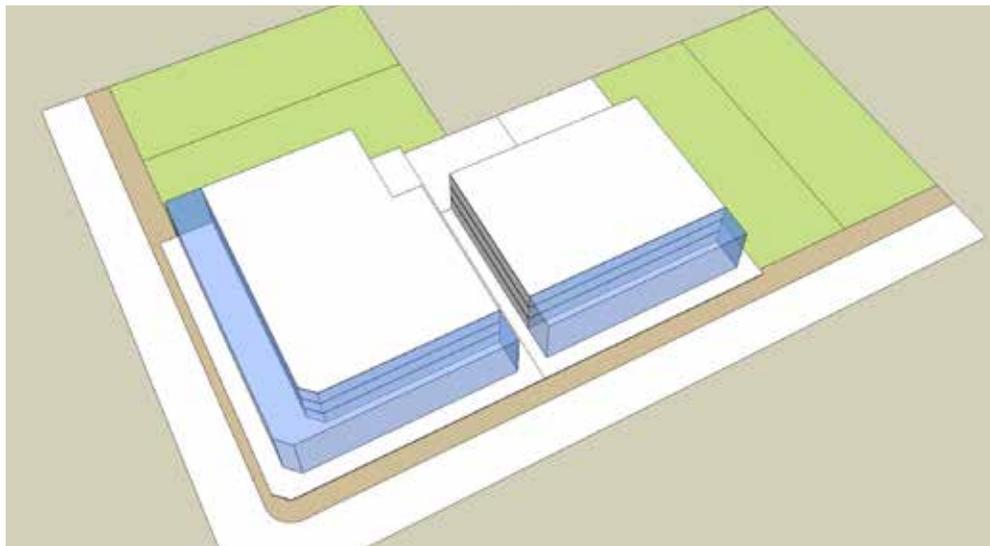
TYPE 2A BUILDING ENVELOPE ELEVATIONS



TYPE 2B BUILDING AREA PLAN



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



TYPE 2B BUILDING ENVELOPE

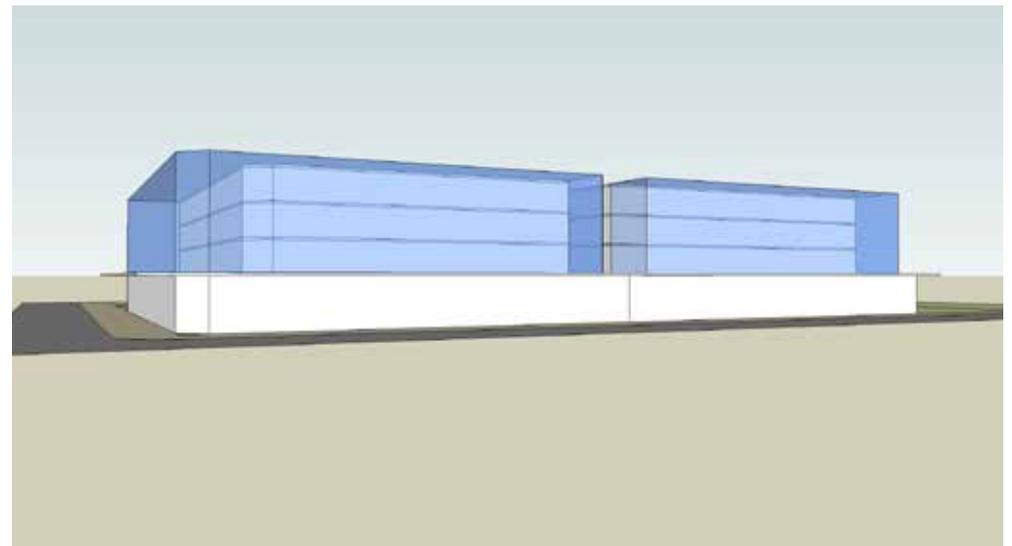




Figure 26: ILLUSTRATIVE PERSPECTIVE OF TYPE 2 BUILDINGS - INTERSECTION OF VICTORIA STREET AND NELSON STREET

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 27: 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 28: 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 29: TYPE 2 BUILDING STUDY (8 STOREYS)



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 30: 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:

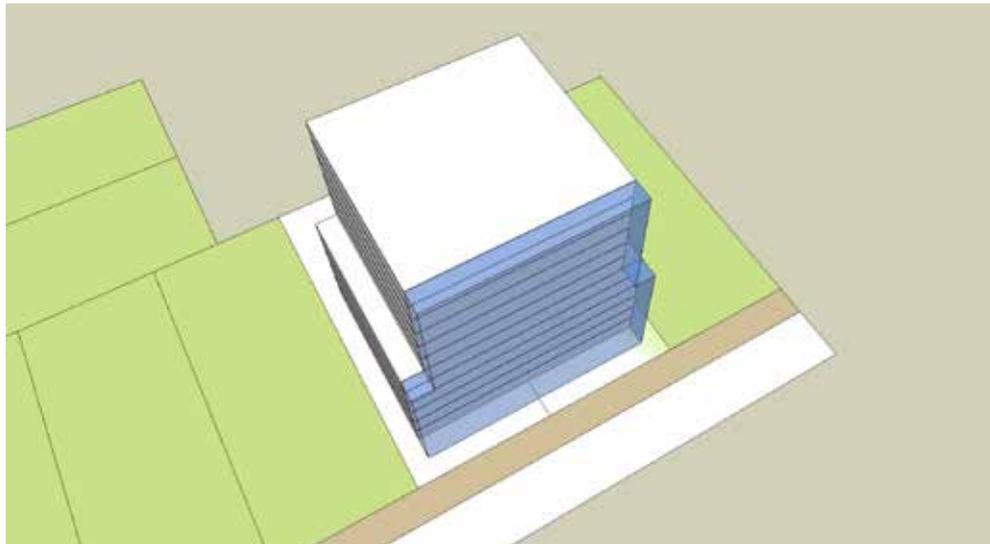
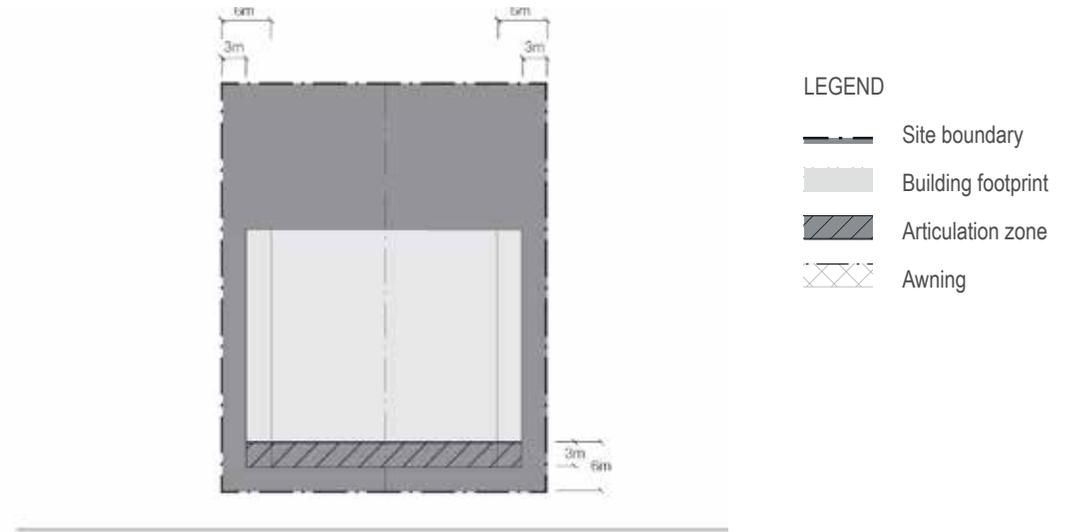
- provide an interesting building facade and address the street frontage by providing windows, doors, balconies and the like; and
- provide a combination of shade vegetation and footpath awnings (particularly at pedestrian entrances) for the full frontage of sites.

Maximum building heights for this building typology can be determined by referring to *Figure 5: Mackay City Centre building heights*.

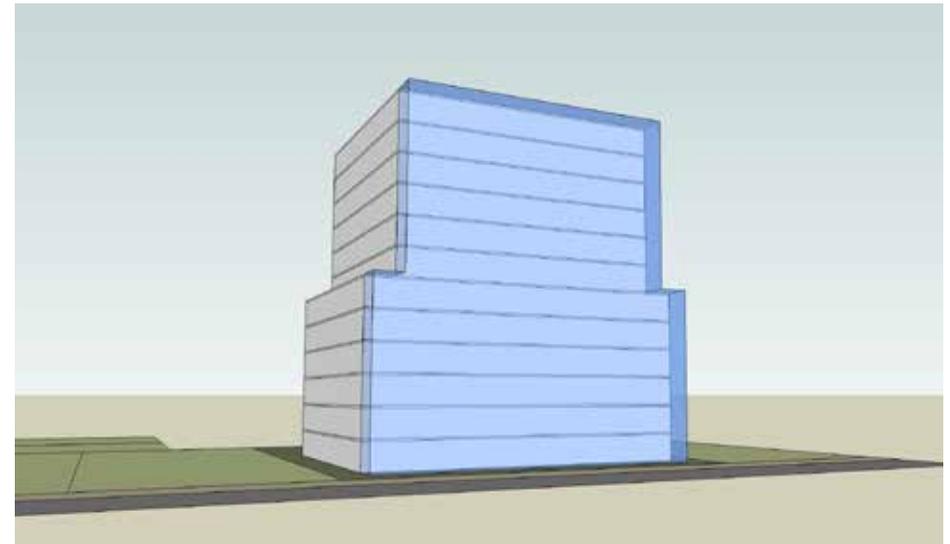
Development Standards

Building setbacks		
Levels 1-6	Front	3m (OMP) and 6m (wall)
	Side	3m (OMP or wall)
	Rear	3m (OMP or wall)
	Laneway	3m (OMP or wall)
Levels 7 and above	Front	3m (OMP) and 6m (wall)
	Side	6m (OMP or wall)
	Rear	3m (OMP or wall)
	Laneway	3m (OMP or wall)
Building height (does not include any basement levels)		
Maximum building height	17m (5 storeys) above ground level to 49m AHD (12+ storeys)	Refer to the relevant building height area in <i>Figure 5: Mackay City Centre building heights</i> to determine the maximum building height.
Recommended lot size and dimension		
Minimum lot size	1500m ²	
Min frontage	25m	
Miscellaneous		
Floor height	All levels	Determined by the building designer
Maximum building depth	60m (OMP)	
Max floor plate (above podium)	Commercial	1,500m ² (in any single tower)
	Residential	1,500m ² (in any single tower)
Shade and shelter	Yes	Combination of shade trees and awnings. Awnings will generally be located at pedestrian entrances (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



TYPE 3 BUILDING ENVELOPE ELEVATIONS



Type 4 Low impact industry frontage

Description

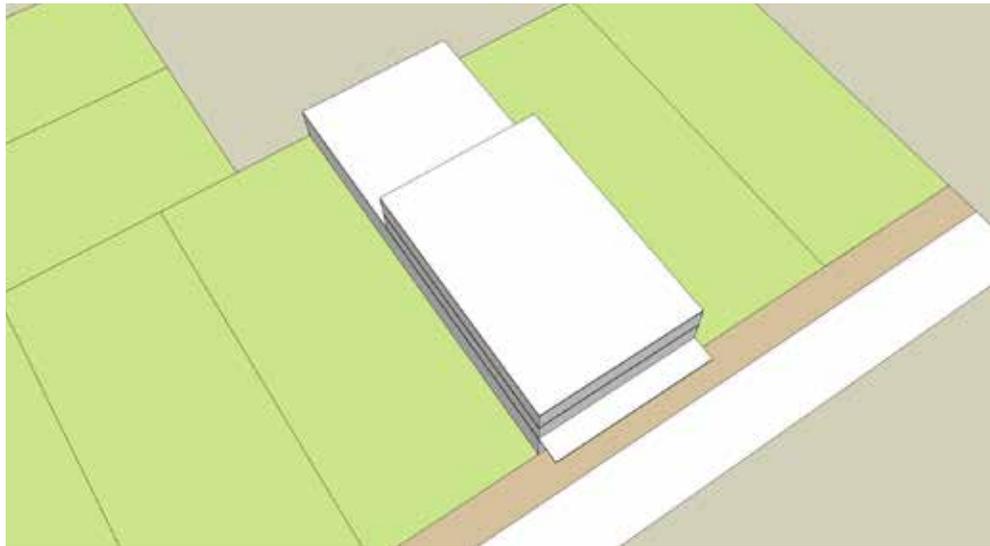
This building typology is for the Low impact industry zone area east of the Principal Centre zone and is a simple functional building which can be adapted to a number of uses including warehousing, showroom, light industry and the like. Buildings are built to the street alignment and will require a footpath 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 5: Mackay City Centre building heights*.

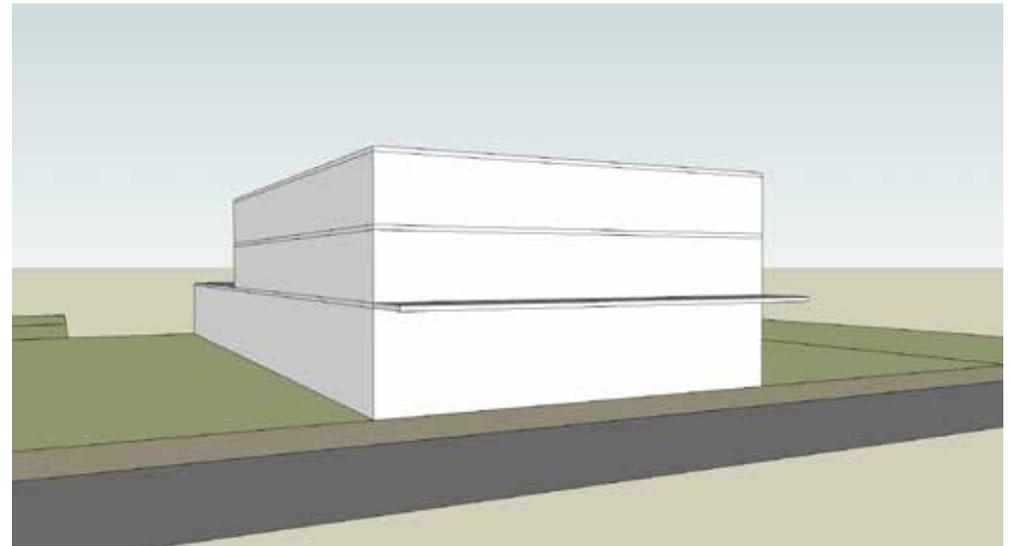
Development Standards

Building setbacks		
Podium (1 level only)	Front	0m
	Side	0m
	Rear	0m
Levels 2-3	Front	0m
	Side	0m
	Rear	3m (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 5: Mackay City Centre building heights</i> to determine the maximum and/or minimum building height.
Recommended lot size and dimension		
Minimum lot size	1000m ²	
Min frontage	20m	
Miscellaneous		
Floor height (floor to ceiling)	Ground floor	Minimum 4m
	All levels above the ground floor	Minimum 3.3m
Maximum building depth	30m (OMP)	
Awning	Continuous	All frontages (min 3m)
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





Get in touch

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MACKAY City Centre Strategy and urban design principles

The logo features the word 'MACKAY' in a bold, green, sans-serif font. Below it, 'City Centre Strategy' is written in a blue, sans-serif font, and 'and urban design principles' is in a smaller, blue, sans-serif font. To the left of the text is a stylized graphic element consisting of a blue square with a white cutout, resembling a building or a map outline.