

MOUNT PETER STRUCTURE PLAN

SUMMARY REPORT



DISCLAIMER

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Document Control					
Version	Date	Author		Reviewer	
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<u>Ver A</u>	<u>April 2010</u>	<u>Kerry Nisbet</u>	<u>KN</u>	<u>Adrian Sains</u>	<u>AS</u>
Ver <u>A2B1</u>	<u>April May</u> <u>Nov 2010</u>	Kerry Nisbet	KN	Adrian Sains	AS
<u>Ver C</u>	<u>Sept 2012</u>	<u>Adrian Sains</u>	<u>AS</u>	<u>Adrian Sains</u>	<u>AS</u>

MOUNT PETER MASTER PLANNING GROUP



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FORWARD

The Mount Peter Structure Plan presents a once in a lifetime opportunity to shape a sustainable future for Queensland's Far Northern region's growth area over the next 25 years. It also enables safeguarding of the unique qualities of our environment, scenic amenity and the cultural history of the Mount Peter area.

In 2008, the Cairns Regional Council and the State Government committed to the development of a strong planning framework for Mount Peter, based on a shared Vision and in collaboration with the community, industry and all levels of government.

The Mount Peter area is held as a special place for each of us and has presented the opportunity to apply a holistic and inclusive planning approach. As such, the Mount Peter Structure Plan provides for integrated land-use and infrastructure planning, place-making, tropical design, economy and employment, environment, water, cultural, recreation, social, housing and community development for an ultimate population of over 40,000 people. It is the first Structure Plan in Far North Queensland to undertake this approach and goes beyond any of the minimum statutory requirements.

The Mount Peter Structure Plan is presented as a number of legislative, technical and complimentary Parts, of which a précis is presented in this Summary Report.

It is effected through Part 1 - Amendments to CairnsPlan and Part 2 - Mount Peter Planning Scheme Policy; adopted by Cairns Regional Council and (to be) accepted by the State Government Minister for Planning under the provisions of the *Sustainable Planning Act 2009*.

The Mount Peter Structure Plan has created the foundation for a real community, where real people will live - people who could be your children and grandchildren.

1. INTRODUCTION

The Mount Peter area has been identified as one of the major urban growth areas in the Cairns region. Mount Peter is part of the Southern Growth Corridor and was declared as a Master Planned Area (MPA) under the former *Integrated Planning Act 1997 (IPA)* in May 2008 ¹. It is expected to provide for an ultimate population of over 40,000 people, with an approximate average residential density of 20 dwellings per hectare (dw/ha).

Preparation of the Mount Peter Structure Plan has provided an opportunity for the Cairns Regional Council (Council) to further consider the role of this major urban growth area within the region and to set out integrated land use and infrastructure planning to inform future detailed master planning and development assessment processes.

Integration, self-sufficiency, transit oriented development, preservation of environmental values, sustainability and efficient infrastructure provision are major themes that have been addressed in the structure planning process and that will remain a focus in all future planning stages.

Achievement of the desired outcomes for Mount Peter will require strong partnerships to be established between a range of stakeholders and for a collaborative approach to be adopted in addressing the myriad of issues that will arise over the planned 30-year life of the development.

1.1 Objective and Aims of the Mount Peter Structure Plan

The primary objective of the Mount Peter Structure Plan is to enable staged land development and infrastructure provision whilst also ensuring the regional and local desired outcomes are achieved.

The primary aims of the Mount Peter Structure Plan are to;

- Create one of Australia's premier master planned communities;
- Deliver the Vision;
- Complement the Cairns Plan and *Far North Queensland Regional Plan (FNQ2031)* by:
 - ensuring the Mount Peter MPA is developed as the priority urban growth corridor;
 - implementing a master planning process to ensure sustainable, efficient, coordinated development outcomes, which also achieve enhanced relationships between employment, transport infrastructure and populations growth;
 - creating economic and employment attractors for the southern areas of Cairns; and
 - creating communities, not just subdividing land;
- Provide 'cutting edge/best practice' growth management, economic development, urban design, liveability and nature conservation outcomes;
- Facilitate State Government and community input into the preparation of Master Plans; and
- Provide the principal guidance for development assessment.

¹ Currency of the declaration is maintained under the transitional provisions of the *Sustainable Planning Act 2009*.

1.2 Location

The Mount Peter Master Planned Area (MPA) is approximately 10kms from the Cairns CBD and located between Edmonton and Gordonvale to both the west and east of the Bruce Highway – see Figure 1 below. The Mount Peter MPA is situated at the base of the Atherton Tablelands and is bordered by the Wet Tropics World Heritage Area to the south and the Lamb Range (which forms part of the Wet Tropics World Heritage Area) to the west. The Bruce Highway runs through the site and creates two distinct areas; between Draper Rd and Peterson Rd to the west of the Bruce Highway; and the area east of the Bruce Highway directly to the east of the proposed Edmonton Town Centre along Thompson Road.



Figure 1 Locality Map

1.3 Site Description

The Mount Peter MPA is currently a greenfield site of about 3330 hectares with a developable area of 1582 hectares. Land uses are predominately agricultural (largely sugar cane farming) and also include some low density residential development.

Scenic qualities of the Mount Peter area contribute significantly to the character and landscape of the area as a whole and the surrounding natural areas are important to the conservation of biodiversity.

The character of the western side of the Bruce Highway is largely rural landscape: cane fields, farm houses and the occasional cane barrack. Close to Draper Road to the south there is an established large lot subdivision known as Meringa. The eastern side of the study area initially demonstrates a quite different character in that it is essentially urban residential in nature close to the Bruce Highway with cane fields, further to the east. Specific existing land uses have been detailed on *Map 02 Mount Peter Structure-Plan Area Master Planned Area - Existing Land Use*.

Dominant features of the area include low lying alluvial plains of the Trinity Inlet Catchment and the steep vegetated ranges to the west and south which form part of the Wet Tropics World Heritage Area. A number of waterways traverse the area including Stony Creek and Blackfellows Creek in the northernmost sections; Wrights Creek which traverses the centre of the area; and Mackey Creek in the southern sections. The creeks are notable for having wide floodplains that are bounded by steep high banks or for heavily eroded gorges. Extractive industry quarries to the south of the area present dramatic back drops of exposed rock where vegetation has been cleared.

1.4 Vision

The Vision for the Mount Peter MPA is summarised as follows:

"In 2030, the town of Mount Peter is a social, economic, employment and community hub where people enjoy a tropical lifestyle within a unique natural environment. Mount Peter is a prosperous community which is largely self-sustaining. A diverse employment base has been created by the private and public sectors leveraging off major health, education and technology facilities.

With its own distinctive centres, it is also closely connected with the vibrant town centres of Gordonvale and Edmonton.

Innovative master planning and urban design has delivered defined urban villages with a diversity of lot sizes and housing choice to meet the life cycle needs of residents. Higher density living is conveniently located close to centres and public transport.

Residents enjoy a range of quality services, facilities and community events and feel a strong sense of identity, safety and security. The rich history of Mount Peter is woven into the urban tapestry and is expressed through design, architecture and public art.

Development is responsive to the tropical environment, and environmental stewardship is obvious, with solar panels, rainwater tanks and native vegetation a common sight.

Healthy waterways and lush green corridors extend from the surrounding mountains and define the urban villages. Good access to parks, open spaces and recreational facilities promote an active lifestyle and connection with the natural environment.

Movement within and beyond Mount Peter is convenient and safe with good connection to the town centres and the Cairns CBD. People use the well designed and efficient public transport system that integrates the town centres, urban villages, education and employment hubs. The connected network of walking and cycling paths and open space has also reduced the dependency on car use.

Integrated planning and delivery of infrastructure has provided innovative solutions that benefit the community, creating new standards in environmental sustainability."

Appendix B provides a breakdown of how each of the key 'outcomes', 'strategic activities' and 'indicators of success' contained in the Vision are addressed in the proposed amendments to CairnsPlan.

The application of the statutory planning components of the Structure Plan requires detailed consideration through the development of Master Plans to enable delivery of the Vision.

1.5 Community & Stakeholder Engagement

The development of the Mount Peter Structure Plan has been underpinned and informed through an open and collaborative process that has integrated ideas and values of the community, key stakeholders and professionals from the public and private sector. The following summary information is extracted from the Mount Peter Communication Plan that was developed in consultation with Cairns Regional Council (CRC) at the outset of the project.

Key stakeholder groups identified includes the following:

- Community members (including residents, landowners and business operators of the Mount Peter study area, Gordonvale, Edmonton as well as in the wider Cairns area)
- Local stakeholder groups (such as community and business organisations, environmental groups, service providers, sporting clubs and local societies)
- State Agency Reference Group (including departments of infrastructure, planning, health, communities, education, transport and main roads, sport and recreation, and natural resources)
- The Mount Peter Master Planning Taskforce (MPMPT)
- CRC Councillors and Officers
- Established groups such as the Mount Peter Community and Landowner Reference Group
- Indigenous representatives – traditional owners of the Mount Peter area.
- Local media organisations.

Engagement and communication issues have been considered together to ensure that the project approach has been integrated and complementary. Communications in this context is clearly distinguished from marketing and public relations.

The consultation approach is based around the use of a variety of tools and techniques to ensure that a wide range of community members and other stakeholders have been able to engage meaningfully in, and be kept informed about, the structure planning process. Some of these tools and techniques include the following:

- Stakeholder analysis – identification of key members of the community and other stakeholders. This is a tool that has been used throughout the project to ensure engagement of an increasing range of stakeholders

- Key stakeholder interviews – critical at the beginning of the process to determine community history, values, key issues and aspirations. Individual and small group interviews were undertaken with key stakeholders including landowners and businesses
- Mount Peter Master Planning Taskforce (MPMPT) - regular meetings with Taskforce Members to provide status and updates on progress as well as a forum to raise and discuss key issues about the structure planning process.
- Community and landowner reference group – reference group meetings have been used as practical working sessions where ideas have been tested and feedback sought on preliminary concepts and plans. The reference group is an important conduit to the wider community through its established networks
- Enquiry by Design (EBD) – an intensive, multiple day design collaborative workshop that was one of the centrepiece activities for stakeholder engagement in the land use design process. In February 2009 the EBD brought together key stakeholders to work together to develop an agreed concept for the Mount Peter Structure Plan
- Community workshops and information sessions – used to gain broader community input and feedback at key milestones i.e. during and on completion of the Enquiry by Design and on completion of the Structure Plan documentation
- Government agency meetings and workshops – ensuring that government stakeholders have been kept informed about the planning process and provided a forum to raise and discuss key issues, including planning, projects and infrastructure priorities
- Outreach activities –including working with local schools and doing street interviews and information stalls in both Gordonvale and Edmonton
- Community open day – a major consultation event is planned to occur during the exhibition period where the broader Cairns community will be encouraged to view the draft structure plan. This will be accompanied by a range of activities such as children’s activities, community barbecue etc.
- Personal communications and meetings – specifically tailored for Indigenous representatives and in consultation with CRC’s Indigenous Special Projects Co-ordinator.

The following are communication tools that have been adopted to convey key project messages:

- Newsletters - newsletters have been issued on a quarterly basis (approximate). The content of the newsletters has focussed on supporting community engagement during the development of the Structure Plan. The newsletter has been used as a consultation and communications tool rather than a marketing exercise.
- Web site - a new web site was created, transferring relevant background information and linking the site to CRC’s existing web page. The web site includes some degree of interactivity to support the consultation process. For example, in the pre-EBD phase, a community values survey (linked to web-based Survey Monkey software) was available on the site. The address for the project website is www.mountpetermasterplanning.com.au.

- Media releases - media releases have delivered to the media key project messages and responses to issues and have prompted the development and distribution of positive news stories and project coverage.
- Advice Summaries - used as a tool to keep the project team and stakeholders updated with upcoming engagement activities
- Project communications including advertisements in the local press and Council's web site - to promote events and activities related to the master planning process.

2. STRUCTURE PLAN

2.1 Purpose of Mount Peter Structure Plan

The Mount Peter Structure Plan provides for:

- integrated land use and infrastructure planning for the Mount Peter MPA; and
- a master planning process for land included in Master Planning Units 1-8. Refer to *Map 14 Mount Peter ~~Structure Plan Area~~ Master Planned Area – Master Planning Units*

2.2 Mount Peter Area

The Mount Peter MPA site boundary is identified on Figure 2 below:

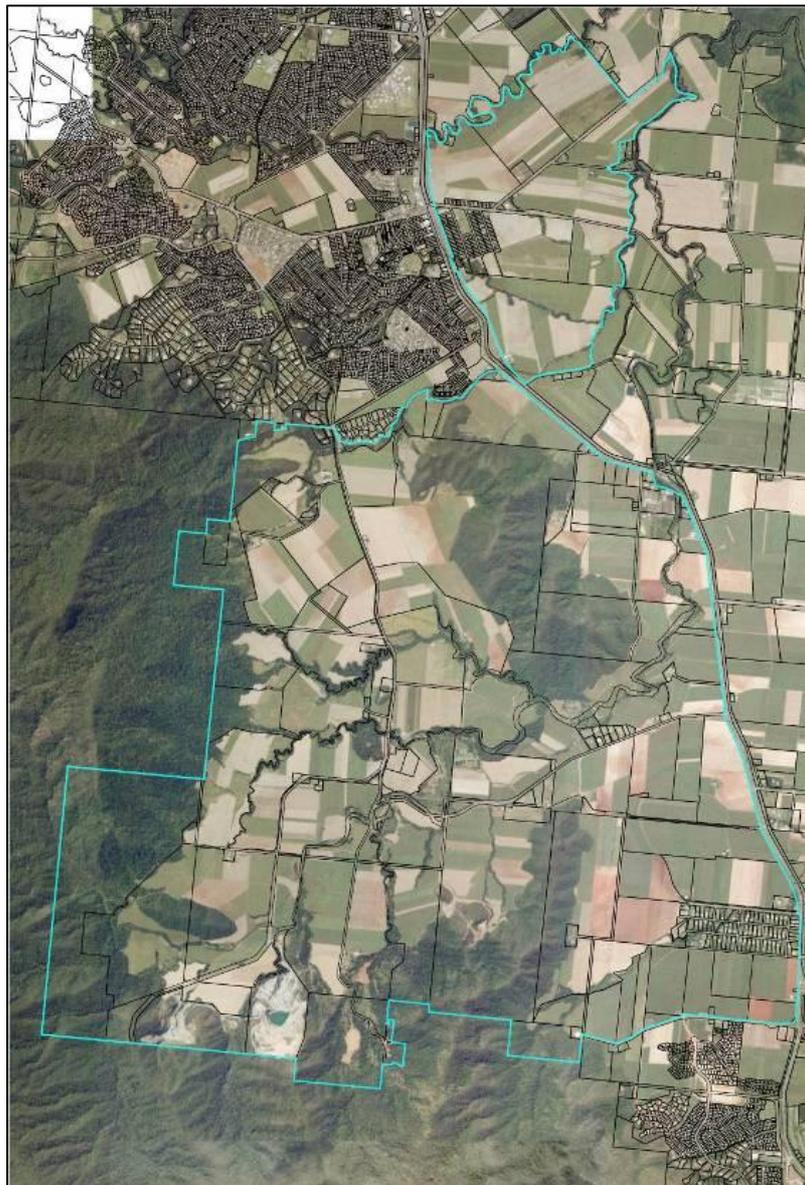


Figure 2 – Mount Peter MPA

2.3 Structure Plan Documentation

The Mount Peter Structure Plan consists of five (5) parts:-

- Part 1 – Amendments to CairnsPlan - outlines the statutory amendments to CairnsPlan that gives the Mount Peter Structure Plan effect;
- Part 2 – Planning Scheme Policy - ~~outlines the statutory policy to~~ provides guidance on the delivery of desired development outcomes and the preparation of Master Plans;
- Part 3 – Implementation Plan - assists Council and development proponents to understand the likely staging of key development outcomes particularly with respect to placemaking objectives;
- Part 4 - Trunk Infrastructure Report - summarises the critical trunk infrastructure issues and growth assumptions, and includes information on the Priority Infrastructure Plan (PIP)/ Infrastructure Charges Schedule (ICS) components to support the development staging in increments of 0-5yr, 5-10yr and +10yr to the ultimate scenario at 25 years;
- Part 5 – Technical Reports - includes technical reports that provide supporting analysis on key issues affecting the development of the Mount Peter Structure Plan and future Master Plans.

Parts 1 and 2 are the statutory components of the Structure Plan as required under the *Integrated Planning Act 1997, Mount Peter Master Planned Area Declaration 2008 and Cairns Regional Council*.

Parts 3 to 5 are the supporting information to the statutory components (Part 1 and 2) and provide background, technical and implementation information.

2.3.1 Statutory Components

2.3.1.1 Part 1 - Amendments to CairnsPlan

Background

CairnsPlan is the Planning Scheme for the City of Cairns and has been prepared in accordance with the *Integrated Planning Act 1997*.

Currently, the CairnsPlan includes the majority of the Mount Peter MPA in the Rural Lands District. A small portion is also located within the White Rock-Edmonton District. The Rural Lands district is predominantly classified as Rural 1 Planning Area, however the Mount Peter MPA site is classified as Rural 2 Planning Area, identifying the area as a future urban designation. The master planning process will ultimately change the Planning Area designation for Mount Peter to Future Urban.

CairnsPlan sets out Council's planning intentions for the City for the next 10-15 years, except in the case of nominated ~~Structure Plan Area~~ Master Planned Area where a longer planning horizon may apply.

The Mount Peter Structure Plan, when incorporated into CairnsPlan, will give effect to the FNQ Regional Plan by:

- providing for the development of Mount Peter to accommodate the majority of the region's new urban growth to 2031 and beyond; and
- incorporating the principles and policies of the FNQ Regional Plan 2009-2031 relevant to the development of Mount Peter.

Amendments to CairnsPlan will provide for a master planning process to be undertaken in areas within the Mount Peter MPA. Master Plans provide a more detailed level of planning within the Mount Peter MPA and give effect to the Structure Plan.

Mount Peter Structure Plan Elements

The Mount Peter Structure Plan comprises the following elements to be incorporated within the CairnsPlan:

- A description of the elements comprising the Mount Peter Structure Plan;
- A strategic framework including desired environmental outcomes for the ~~Structure Plan Area~~Master Planned Area (incorporated in Chapter 2 of CairnsPlan);
- Identification of the ~~Structure Plan Area~~Master Planned Area as a District and the inclusion of all land not currently developed within the ~~Structure Plan Area~~Master Planned Area in the Future Urban Planning Area (incorporated in Chapter 3 of CairnsPlan);
- Identification of the level of assessment applicable to development in the ~~Structure Plan Area~~Master Planned Area (incorporated in Chapter 3 of CairnsPlan);
- A Future Urban (Mount Peter Structure Plan Area) Code (incorporated in Chapter 4 of CairnsPlan) applicable to the assessment of Master Plans and general development. The ~~Mount Peter Structure Plan Area Code~~Future Urban (Mount Peter Structure Plan Area) Code sets out the locality specific requirements for Master Plans and development which are intended to override, to the extent of any inconsistency, provisions contained in any other planning scheme codes. The code provides an integrated land use and infrastructure planning framework for the Mount Peter MPA; guides the master planning process; and facilitates the achievement of the desired development outcomes for each element and precinct of the Mount Peter MPA;
- Definitions necessary to interpret terms used in the Mount Peter Structure Plan (incorporated in Chapter 5 of CairnsPlan);
- A master planning process for land included in the ~~Structure Plan Area~~Master Planned Area (incorporated in Chapter 6 of CairnsPlan) including details about:-
 - (i) when a Master Plan application is required;
 - (ii) the information to be provided in conjunction with a Master Plan application;
 - (iii) the nominated role of State agencies in the assessment of Master Plan applications; and
 - (iv) the circumstances under which a Master Plan can change the level of assessment for development;.
- Mount Peter Structure Plan Overlays

The maps referred to in the Future Urban (Mount Peter ~~Structure Plan Area~~Master Planned Structure Plan Area) Code identify in a spatial context the outcomes intended for the Mount Peter MPA, similar to the Overlays in CairnsPlan. These are listed below and are attached to this report in Appendix A.

- Map 01 Natural Environment
- Map 01A Natural Environment Threatened Flora & Fauna
- Map 02 Existing Land Use
- Map 03 Flood Hazard Mapping

- Map 04 Elements of Historic and Cultural Significance
- Map 05 ~~Planning Area Designations~~ ~~Development Area~~
- Map 06 Placemaking
- Map 07 Centres Location
- Map 08 Precincts
- Map 09 Development Entitlements
- Map 10 Transport and Mobility Infrastructure (Road Hierarchy)
- Map 11 Transport and Mobility Infrastructure (Walk and Cycle)
- Map 12 Transport and Mobility Infrastructure (Public Transport)
- Map 13 Sport & Recreation and Open Space Infrastructure
- Map 14 Master Planning Units
- Map 15 Community Facilities Infrastructure

2.3.1.2 Part 2 - Planning Scheme Policy

The Mount Peter Planning Scheme Policy complements the other provisions of the Mount Peter Structure Plan incorporated within CairnsPlan and provides supplementary guidance about achievement of the desired development outcomes for the Mount Peter MPA ~~and the preparation of Master Plans~~. The Mount Peter Planning Scheme Policy is to be adopted by Council.

In summary, the Mount Peter Planning Scheme Policy provides:

- ~~Non statutory guidance on the preparation of Master Plans~~ ~~guidance on the preparation of Master Plans; the Policy provides direction for the future development of master plans that have the ability to respond to market conditions over time, eg housing typologies.~~
- information that Council may request in the assessment of a ~~Master Plan or~~ development application;
- ~~guidance on how particular performance criteria included in the Mount Peter Structure Plan Area~~ ~~Master Planned Area Code may be satisfied; and~~
- ~~specific objectives for each element.~~

2.3.2 Supporting Information to Statutory Components

2.3.2.1 Part 3 - Implementation Plan

The Implementation Plan has been developed to assist Cairns Regional Council in highlighting and delivering key outcomes for the Mount Peter MPA. The document is not intended to address issues that would be managed as due process, but those elements that will assist in the place making process.

The Implementation Plan is a time based process that includes five (5) year development phases. It includes three sections that provide the strategies to deliver the outcomes.

- General Description - to provide a snapshot of the type of activity that is occurring during these development phases, based on project population targets, staging and employment opportunities.
- Catalyst and Response – Several key catalysts are required to deliver product on the ground and/or to achieve new aspirational targets that maybe outside current best practice. Key catalysts that are listed, although not exhaustive, provide a guide as to what elements of development and community building will affect a specific response.
- Theme / Action / Responsibility - outlines key initiatives as contained within the ~~Future Urban~~ (Mount Peter ~~Structure Plan Area~~ ~~Master Planned~~ ~~Structure Plan Area~~) Code

and/or the Planning Scheme Policy and may also be related to the Priority Infrastructure Plan (PIP) and Infrastructure Charges Schedule (ICS). These items may over time require amendment to reflect changing progress, practices or requirements. It is intended that the document will provide guidance in relation to capital spending, resource allocation and expectations.

2.3.2.2 Part 4 - Trunk Infrastructure Report

The Trunk Infrastructure Report summarises the critical trunk infrastructure issues and provides growth and related development entitlements to support the Mount Peter Structure Plan. The primary objective of the report is to highlight trunk infrastructure requirements to support the phases of development within the 0-5yr, 6-10yr and +10yr to the ultimate scenario at 25 years.

The Trunk Infrastructure report contains details of the Mount Peter PIP/ICS components which will then adjoin to the Cairns PIP/ICS. The Mount Peter PIP/ICS components have been structured to apportion all Mount Peter trunk infrastructure costs to the residents/businesses of Mount Peter i.e. the principle of "user pays". This is consistent with Cairns PIP/ICS, State guidance and the approach applied in other major greenfield sites in Queensland.

The report includes an assessment of the Local Function Charge for State Controlled Roads incorporated into the Mount Peter PIP/ICS. This applies the same charging methodology used for local trunk roads with an adjustment for the amount of road capacity consumed by local traffic movements from Mount Peter.

The report identifies staging to inform Council's capital works programme. In particular, an Infrastructure Agreement may be required to accompany approval of a Master Plan where other existing infrastructure funding mechanisms (i.e. the Priority Infrastructure Plan) or planning scheme measures do not provide a satisfactory basis from which to address a relevant infrastructure funding matter.

Further detailed information is presented in the Mount Peter ~~Structure Plan Area~~ Master Planned Area documentation and supporting technical reports listed in reference documents.

The following table summarises the costs and charges associated with trunk infrastructure.

	TOTAL	Charge / EDU
ROADS	\$ 355.2 m \$ 350.0 m	\$14,241 \$14,033
COMMUNITY FACILITIES	\$ 20.2 m \$ 17.5 m	\$1,095 \$949
PARKS AND OPEN SPACE	\$ 113.1 m \$ 123.6 m	\$6,120 \$6,689
POTABLE WATER SUPPLY	\$ 44.9 m \$ 39.7 m	\$2,342 \$2,070
RECYCLED WATER	\$ 73.6 m \$ 72.5 m	\$3,356 \$3,307
WASTE WATER	\$ 139.1 m \$ 124.0 m	\$7,250 \$6,462
TOTAL	\$ 746.2 m \$ 727.5 m	

	TOTAL	Charge / hectare
STORMWATER	\$ 56.7 m	\$44,329

	TOTAL	Charge / EDU
LOCAL FUNCTION CHARGE for STATE CONTROLLED ROADS	\$ 42.6 m	\$1,145

The above charges are subject to further review by Council's Priority Infrastructure Plan team.

2.3.2.3 Part 5 - Technical Reports

The Technical Reports provide background information, technical analysis and recommended actions to address key issues affecting the development of Mount Peter and provide guidance for the development of statutory and non-statutory planning documentation.

The Technical Reports prepared are as follows:

- Community Facilities, Human Services & Community Development Technical Report
- Cultural Heritage Technical Report
- Economic Development and Employment Technical Report
- Environmental Constraints and Opportunities Technical Report
- Housing Technical Report
- Place Making Technical Report
- Other Physical Infrastructure Technical Report
- Sport and Recreation Technical Report
- Stormwater Technical Report
- Transport, Mobility & Access Technical Report
- Tropical Urbanism: A Design Approach
- Water Supply, Sewerage and Recycled Water Technical Report

3. PLANNING

3.1 Planning Principles

As neighbourhoods, communities and urban centres grow within Mount Peter, parts of the prominent natural and rural landscapes will begin to make way for human settlement. With this transition to a more urban setting it is important to guide future development through appropriate place making incorporating best practice tropical design. The new urban form dictates a new visual character for Mount Peter. With this shift, certain landmarks may arise from those that exist currently; these will not just be the natural features of the Mount Peter MPA but will include the built form, be it public town parks, squares, main streets or architectural works.

Mount Peter is located in a region that experiences and is impacted on by tropical wet-dry climates and therefore needs to consider appropriately designed future development in response to such climatic conditions. Climatic conditions of a region shape and inform the urban context of that region. However, with the advent of mechanical cooling, contemporary planning and architecture have, for the most part, ignored climate and designed with little concern for sustainable environmental practice. A better understanding of historical building traditions, contemporary planning and architecture that can respond to climatic considerations will improve environmental sustainability.

The Mount Peter Structure Plan is critically influenced by the future population who will live in Mount Peter in terms of numbers, age, household and socio-economic profile, their distribution and housing, rates of growth and associated community needs. Demographic projections are in turn dependent upon identification of the likely housing yield and mix within Mount Peter.

When considering the length of time over which Mount Peter is to be developed, it is important to recognise the need to allow place making to evolve as the emerging community matures over 20-30 years.

3.2 Desired Environmental Outcomes

Key attributes of the Mount Peter community include:

- a land use structure and form of development that is transit oriented and designed to support the use of public and active transport modes over private vehicle use;
- a network of district and mixed use centres that complement existing centres at Edmonton and Gordonvale and that accommodate major employment and other centre functions including retail facilities, community facilities, public transport interchanges, civic and cultural facilities necessary to meet the needs of the Mount Peter urban community and promote high levels of community self-containment;
- a major business/technology park and integrated industry and employment area that provides a significant quantity of jobs for residents of the Mount Peter [Structure Plan Area](#) [Master Planned Area](#) and surrounding communities;
- an extensive and interconnected environmental and urban open space system that frames individual urban villages, provides for the protection of significant natural areas and environmental values and accommodates sport and recreation facilities that promote active living and healthy lifestyles;

- high standards of environmental performance achieved through the protection, enhancement and management of the community's significant ecological assets and with by designing all development such that it designed to maintains and protects ecological integrity and processes, the physical condition, ecological health and environmental values of natural areas, coastal resources and surface and ground water systems;
- diversity of lot sizes and housing types that meet the lifecycle needs of residents and provide opportunities for affordable living, with the highest density of residential development located close to centres and public transport;
- high standards of tropical design and place making that contribute to the establishment of Mount Peter as an attractive, comfortable place to live with a strong sense of community identity;
- infrastructure and facilities that are provided to residents in a timely, cost effective, sustainable and equitable manner at the desired standard of service.

3.3 Placemaking

3.3.1 Design Principles

Placemaking could be described as a collection of design principals, approaches to good urban design and areas that need to be open to innovation over the life of the project.

It is important to recognise that Mount Peter is to be a development which will introduce new, more sustainable practices in the development of new towns and communities. Design standards will be challenged throughout this process to ensure delivery of the broader vision and goals that have been determined for this Structure Plan.

The goal of placemaking within Mount Peter is to provide an additional layer of consideration into land use planning. It seeks to link the community with its urban form and ensure questions are asked to ensure quality outcomes for the long term. Will the location of the school mean that my children can ride their bicycle to school? How far will I need to drive to get to a doctor, a hospital? What happens when I need to upsize or down size my home, will I need to leave Mount Peter? The overlap between physical planning and the way in which we use our community leads to the concept of liveability. Within the master planning process and the placemaking approach, the design has sought to ensure that liveability is the primary goal for Mount Peter.

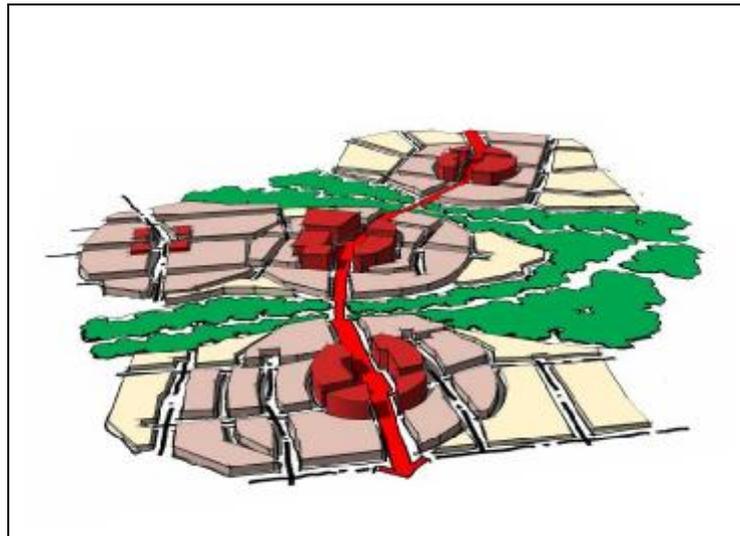
The design must therefore also be mindful of its context and responsibility to the broader community. Mount Peter is located within existing communities and town centres that will be directly impacted on by the development of the Mount Peter MPA. The planning process must therefore consider how to minimise adverse impacts and optimise positive outcomes.

3.3.2 Centres

A key driver for the development of the Structure Plan for Mount Peter is the determination of an appropriate urban form and the need to identify and locate centres within the Master Planning Area. The following outlines broad elements of the design approach:

- The concept of 'Walkable Communities' and its principal of a walkable catchment was used to establish a general pattern of centres within Mount Peter. The walkable communities' principles provide an approach to identifying human scale development within a large site such as Mount Peter.

- The commitment from the State Government for the busway provides a driver and structure in which to locate a series of centres through the site. The desire from the State to create Transit Oriented Communities (TOC's) around a busway, and its obvious relationship to Walkable Communities catchments, heavily influenced the preferred urban form.
- The determination of two district centres was established early in the process in order to support development of the two larger parcels of land in the north and south of Mount Peter; with the centres located along the busway and supported by smaller mixed use centres, also on the busway, to form a string of TOC's as illustrated in the following schematic.



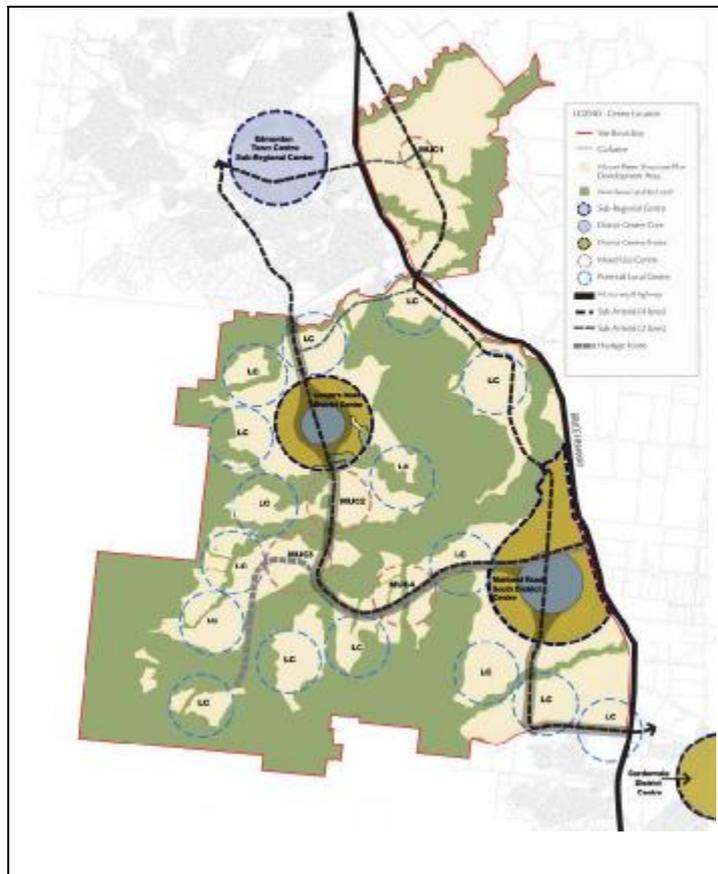
Transit Oriented Centres

The challenge for Mount Peter is to achieve high density targets, as set by the State Government, whilst still enabling development to meet market conditions. Development of the Mount Peter Area will require design considerations and staging that will allow for the ultimate outcome to be achieved as outlined below:

- Early release of lower density development. Development is likely to occur in the areas surrounding the centres first, establishing an urban form that reflects current market needs without adversely impacting on the preferred urban form outlined in the Structure Plan.
- The centres, with the exception of the Maitland Road centre, to be located on existing road reserves to allow for the early establishment of convenience retail and commercial / mix used development.
- The Maitland Road centre, as the largest district centre within the study area, designed and located along the busway alignment after the establishment of the north - south sub-arterial road from Draper Road.
- The early integration of the busway with the existing road networks to establish an early public transport network for Mount Peter that will increase in frequency with the growing population.
- Land for higher density within the centres likely to be used in the interim for overflow car parking and park and ride areas for the busway. These sites to be developed as the demand for land within the centres increases.

Importantly, the concept of a District centre was based on the principle that it did not detract from the Sub Regional Centre of Edmonton. Proposals that potentially elevate centres to a role that would be detrimental to the designated Sub Regional Centre of Edmonton were avoided, such as centres with a Bruce Highway facing orientation.

The proposed centres must be sited within a recognisable centres hierarchy that is designed to meet the needs of its surrounding community. In developing the concept for Mount Peter it was evident that the majority of the development potential, due to its predominantly unconstrained land, was located within three key precincts; Maitland Road South, Coopers Road and the North East Precinct, to the east of the proposed Edmonton Town Centre. The mass of development potential, combined with the busway opportunity, provided a clear basis on which to site and develop a centres structure within Mount Peter.



Centres Hierarchy

The hierarchy of centres within Mount Peter includes District, Mixed Use and Local Centres, with each type of centre providing a different type and level of service to the community.

	Purpose / Intent	Desired Outcome
Local Centres	Local centres provide a focal point within a small, walkable community. Local centres differ from the other centres within the hierarchy due to their focus on community facilities and not retail. Local centres may have parks, schools community halls, churches and other community facilities at their hub.	Local centres are provided to ensure that the overall development of Mount Peter is undertaken in such a manner that each resident has the opportunity to relate and obtain a sense of place through the establishment of the local centre. Subdivision design through the use of clear axis and vistas, will reflect the importance of these centres within the broader urban pattern.

	Purpose / Intent	Desired Outcome
Mixed Use Centre	<p>The local centre is proposed to service a small community or neighbourhood. It is potentially a lifestyle opportunity based around a small main street with opportunities for cafes and restaurants. It is not intended that these centres will contain any significant retail.</p> <p>The built form and character of Edge Hill would be an appropriate example.</p>	<p>Located primarily along the busway, it is intended that the local centres provide a lifestyle opportunity for local communities, creating a clear identity for particular areas. The lifestyle intent would best be reflected in creating quality public realm through a small main street (potentially running perpendicular to the sub-arterial roads) with ground floor activation. Uses would typically include:</p> <ul style="list-style-type: none"> - limited convenience retail; - restaurants / café; - professional offices; and - residential above the ground floor.
District Centre	<p>The District Centres are to provide a higher level of service to the local community. These centres provide for a range of uses and employment opportunities. The centres provide quality urban spaces for interaction and a diverse range of uses.</p>	<p>Providing a range of mixed use including commercial, these centres provide both a destination and a local character to the area. It is expected that each of the centres will seek to establish a particular theme or approach to differentiate themselves from the other District centres within the area.</p>

Centre Design Elements

The Mixed Use and District Centres within Mount Peter consist of an inner 'Core' and outer 'Frame' on the fringe of the core. The intent of this design approach is to create a more concentrated inner core for the district centres with a defined decreasing density further from the centre. The Frame character and services supporting the Core assist in defining the urban character.

The design consideration for both the District and Local centres are outlined in the following tables.

	Core	Frame	Design Consideration
Mixed Use Centre	<p>Concentrated centre, typically located around a low scale Main Street.</p> <p>Core area is typically contained within 100-200 m radius.</p> <p>Typical density 30dw/ha.</p>	<p>Interface between the core and the outer suburban character of the detached housing Frame area is typically contained within 200 - 400 m radius.</p> <p>Typical density 15dw/ha.</p>	<p>Early delivery of the Main Street retail will typically result in the mixed use being developed early with higher densities being located a block further back.</p>

District Centre	<p>The core is an approximate 400-600m radius which encourages mixed use development averaging 70dw/ha.</p> <p>The Core area is typically contained within 200 - 400 m radius.</p>	<p>The Frame area supports the core service and retail function of the town centre, providing a higher concentration of residential product at 30dw/ha.</p> <p>Frame area is typically contained within 400 - 800 m radius.</p>	<p>The centre is based on the walkable communities' concept, where the core is supported through a well connected fringe area.</p>

Maitland Road South District Centre

Considerations	Located at the most southern end of the Mount Peter MPA and within close proximity of Gordonvale.		
Intent	The intent of the Maitland Road South centre is to create a District Centre that supports the various needs of the community within the southern precincts of Mount Peter, including the established centre at Gordonvale.		
Design Requirements	Issues	Outcomes	
Maitland Road	The current location and function of the Maitland Road intersection with the Bruce Highway will need to be upgraded to a major grade separated intersection. The design and construction of this intersection will require the current intersection to remain open during construction.	Traffic modelling confirmed the need for grade separation of the intersection and that approach roads from the east would be three lanes in each direction.	
Cane Rail	Planning assumptions include the retention of the cane rail bridge over the Bruce Highway and the line to the west of the junction.	<p>DTMR have advised that the ultimate Maitland Road intersection could be relocated 300m to the north or south of the existing junction location to avoid conflicts with the cane rail line. FollowingThrough preliminary assessment of the two options, the south location is recommended to avoid at grade crossing issues with the rail line on the principle thoroughfare between the District centre and the Bruce Highway intersection. [Note: DTMR preference is to avoid sub-arterial junctions within 300m of the proposed interchange.]</p> <p>Further work by development proponents and DTMR will be</p>	

		required to confirm this recommendation. Further discussion with cane rail stakeholders is also recommended.
Busway	A route for the busway through the District centre and an associated transit centre will need to be confirmed through the Master Plan process.	The alignment of this busway is to be located so as to best service the catchments of the stations. These are predominantly to the south west.
Centre Designation	The location and size of the centre is to complement Gordonvale and support the sub-regional centre of Edmonton.	The District Centre is located to optimise the connectivity with the future community. The centre is purposefully located away from the highway to avoid the pressure to expand above its centres designation due to the potential increase in exposure to highway patronage. A highway facing centre would significantly impact on the viability of the Edmonton Town Centre.

Coopers Road Centre

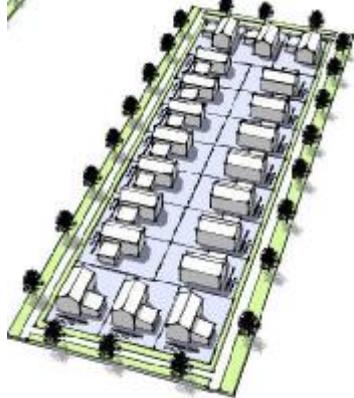
Considerations	Located on the west side of the unnamed hill and within close proximity of Edmonton Town Centre.	
Intent	The intent of the Coopers Road centre is to create a District Centre that supports the various needs of the community within the northern precincts of Mount Peter that complements the Edmonton sub-regional centre.	
Design Requirements	Issues	Outcomes
Mount Peter Road	Road reserve to be widened to take into account the busway and inclusion of cane rail.	Preliminary cross section proposals for a median located busway developed.
Cane Rail	Existing cane rail servicing the Gordonvale mill from the Barron River delta with up to six (6) cane trains per day in the three month cutting season, up to 600 metres in length traversing the site at 10-40km/hr.	Further consultation with stakeholders required to consider relocation of the line. Staged infrastructure configurations to accommodate a development constraint that may eventually be relocated.
Busway	A busway station is to be located central to the centre.	At the Master Plan stage the centre design is to incorporate a busway station as a key element in the centre design.
Centre Designation	The centres' close proximity to Edmonton Town Centre has determined the size and scale of the centre.	The centre as a District centre is to focus on the provision of community facilities and mixed use retail / commercial.

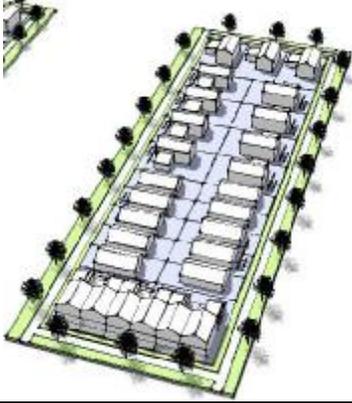
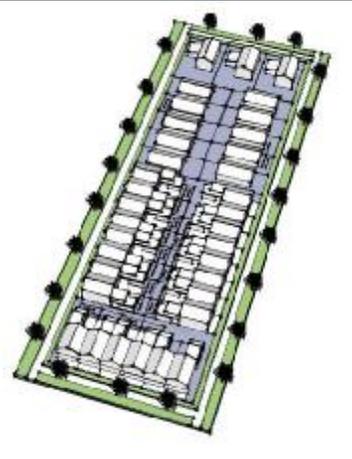
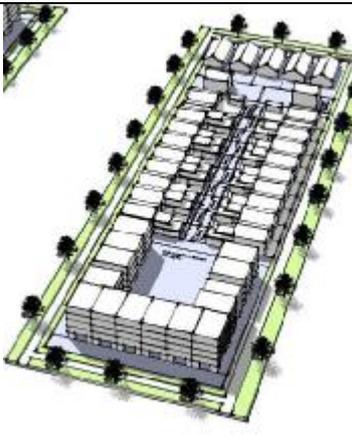
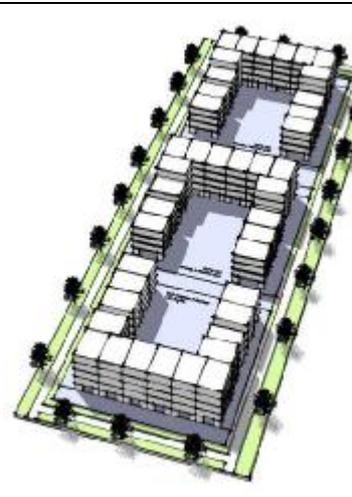
Mount Peter Business and Industry Centre

Considerations	Located to the east of the Bruce Highway and the proposed Edmonton Town Centre.	
Intent	The intent of the Business and Industry Centre is to create an employment hub that services the Mount Peter and wider Southern Growth Corridor communities and complements the proposed Edmonton sub-regional centre.	
Design Requirements	Issues	Outcomes
Employment	The primary use within this area will be employment.	The area has been designed to provide an employment node for the Southern Growth Corridor.
Accessibility	A new interchange with the Bruce Highway will be required. Connectivity with the principle residential areas of Edmonton, Coopers Rd and Maitland Rd is essential.	A new interchange is proposed by DTMR at Deppeler Road. This will connect with a new east-west road to the Coopers Road centre. Traffic modelling has confirmed that the Bruce Highway and proposed north-south sub-arterial road will be adequate to service traffic movements from Maitland Road.
Public Transport	Connectivity with the busway will be required to ensure desired mode share targets are met.	The area is to be serviced by a bus route spur from the busway. Details of frequency of service and so on will be confirmed by DTMR.

3.3.3 Density

A density model that achieves market acceptability in the short term and the longer term sustainability targets of the State Government has been developed by applying a number of key parameters and assumptions as outlined above. The following models illustrate how densities can be achieved through a variety of housing typologies within the same block configuration.

Low Density Residential	Net Density = 12	Typologies Detached House	Dwellings = 20	
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<p>Low Medium Density Residential</p>	<p>Net Density = 19</p>	<p>Typologies Detached House Compact Town House</p>	<p>Dwellings = 33</p>	
<p>Medium Density Residential</p>	<p>Net Density = 30</p>	<p>Typologies Detached House Compact Town House</p>	<p>Dwellings = 52</p>	
<p>Medium Density Residential</p>	<p>Net Density = 60</p>	<p>Typologies Detached House Compact Town House Units</p>	<p>Dwellings = 103</p>	
<p>Medium Density Residential</p>	<p>Net Density = 95</p>	<p>Typologies Units</p>	<p>Dwellings = 163</p>	

The following design concept illustrates how density could be applied over a specific precinct. The concept is based on the design staging outlined in the Centres discussion above and has sought to apply the density model (Appendix C) as a spatial representation. This simplified concept will need further refinement, although the design illustrates a possible approach to delivering Transit Oriented Communities (TOC's) within Mount Peter.

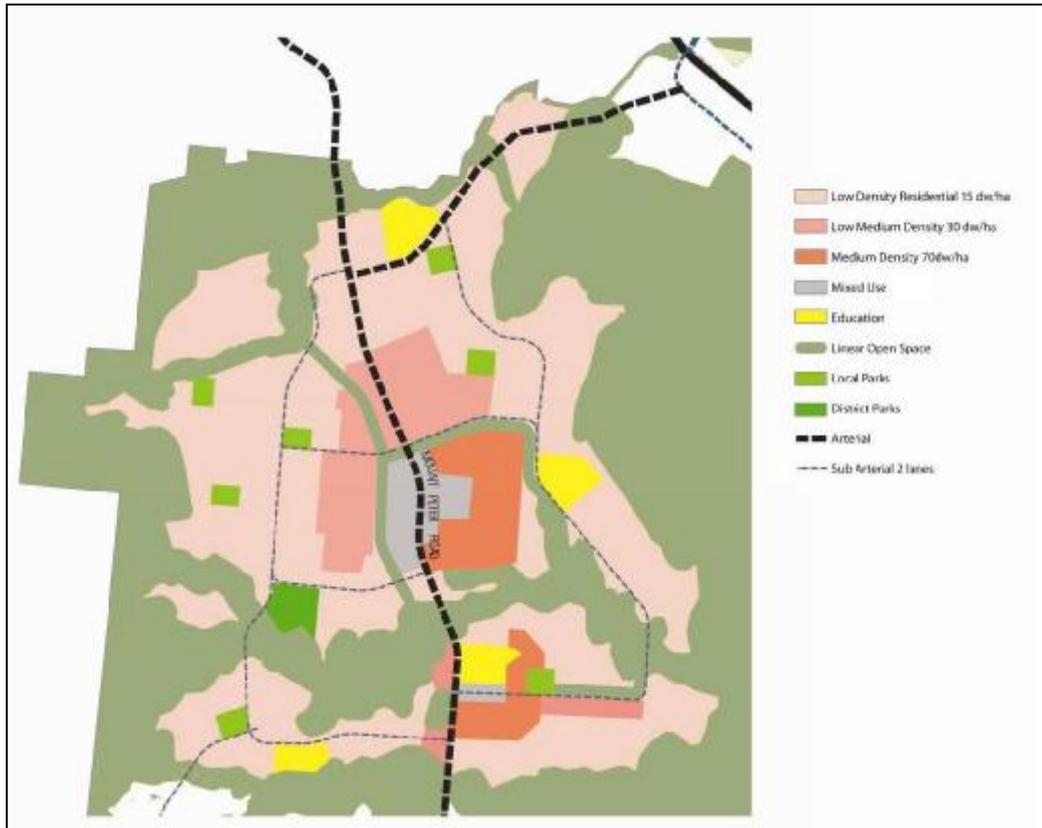


Figure 3 – Coopers Road Precinct: Density and Design Concept

3.4 Development Entitlements

The Structure Plan Overlays include *Map 09 - Development Entitlements* and *Map 14 - Master Planning Units* (see Appendix A) which identify the Master Planning Unit (MPU) boundaries. These have been determined based on their ability to plan for and deliver the key components of the Structure Plan. Fundamental to the process is the need to ensure that the design of the District and mixed-use centres throughout the Mount Peter MPA is integrated with the surrounding residential land use and that the proposed densities across a defined area can be achieved. Additionally, there are physical constraint boundaries that include waterway corridors, slopes and cadastre lines that provide a logical framework for the extent of MPUs.

The associated summary development entitlements as shown in the following table:

Summary Development Entitlements

Description	MPU 1	MPU2 &4	MPU 3	MPU 5 & 6	MPU 7 & 8	TOTAL
Development Area (ha)	259	387	130	339	467	1,582
Active Open Space (ha)		10	10	35	30	85
Passive Open Space (ha)	8	29	14	14	41	106
Retail (Internal Centre) (m ²)		6,300			13,000	19,300
Retail (Main Street) (m ²)		3,200			6,500	9,700
Mixed Use Retail / Commercial (MUCs) (m ²)	2,500	3,500		6,600		12,600
Commercial (m ²)		13,000			35,000	48,000
Low Impact Employment Precinct (ha)	100					100
Mixed Use Employment Precinct (ha)	80					80
Transport Based Industry Precinct (ha)	45					45
Employment (Jobs)	9,450	1,950		650	3,825	15,875
Dwellings	80	5,450	1,500	3,980	7,434	18,484
Education - Secondary School		1			1	2
Education - Primary School		2			2	4
Other - Cemetery (ha)				6		6

4. SEQUENCE OF DEVELOPMENT

Growth assumptions allow for a population of 42,500 and an overall planning duration of 25 years. The rate of growth has been derived from base data provided by the Department of Infrastructure & Planning's Planning and Information Forecasting Unit (PIFU). The rates have been modified to take account of research from SEQ cases and will ultimately be influenced by a number of factors including:

- proximity of existing development;
- provision of facilitating infrastructure;
- timing of support services such as retailing, recreation, and education;
- depth of market competition;
- the number of development fronts able to be generated; and
- the prevailing property cycle.

Growth Assumptions

	Dwellings	Population
Year 5 - 2017	1,745	4,013
Year 10	5,393	12,403
Year 15	9,358	21,523
Year 20	13,720	31,555
Year 25 - 2037	18,484	42,514

Note: The Department of Transport & Main Roads (DTMR) is currently undertaking studies and consultation on the future staging requirements for upgrading the Bruce Highway. Consequently, this report excludes commentary on detailed sequencing of these works with the exception of highlighting critical aspects. These include junction locations and the need to upgrade the ~~highway existing two lane carriageway to four lanes~~ between Deppeler Road and Draper Road beyond the current DTMR proposal to widen the two lane carriageway to four lanes.

A schematic plan of how the development will be sequenced is shown in the following Figure 4.

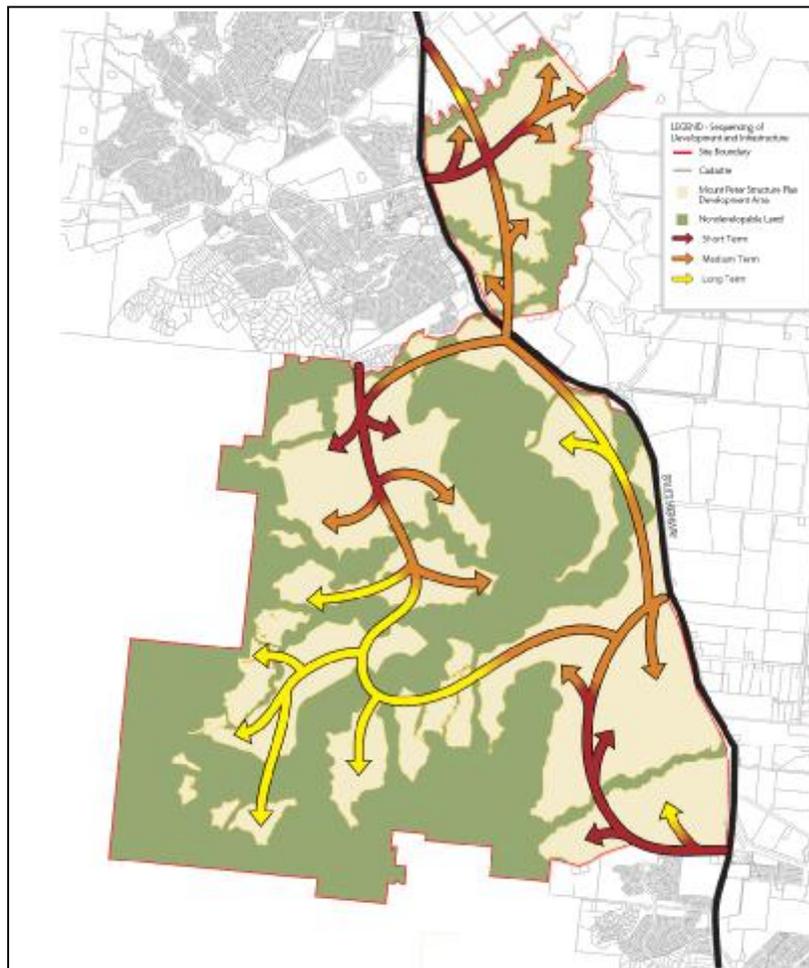


Figure 4 – Sequencing Plan (Short, Medium and Long Term)

4.1 Short Term (0-5 years)

Vision

The first five years will see the development of a number of Master Planning Units and the creation of a new community of approximately 4,000 residents and a Gross Floor Area (GFA) of approximately 25,000m² supporting the employment base in the Mount Peter Business & Industry Centre.

Development fronts in the early phases are most readily serviced from Mount Peter Road in the north, Draper Road in the south and the Mount Peter Business & Industry Centre to

the north east, initially via Thomson Road.

Catalysts	Response
2 - 3 Master Planning Units approved to allow development to occur within Mount Peter	Initial development to occur marking Mount Peter as a new emerging community
Initial Development to occur in the north and south areas of Mount Peter	Lower density development to occur to ultimately create critical mass within the emerging community.
Initial employment uses to be developed in the Mount Peter Business and Industry Centre	Initial investment into employment activity in the north east assists in establishing the foundation of a sustainable, self contained community.
Initial stages of Edmonton Town Centre established	Edmonton Town Centre established as the sub regional centre for the Southern Growth Corridor
Commitment to Busway	Busway corridor implementation and funding strategies ensure early delivery of high quality bus services in line with development staging
Upgrade of Bruce Highway	DTMR completes Draper Road intersection and Bruce Highway upgrade between Deppeler Road and Draper Road from two (2) to four (4) lanes to facilitate development from the southern extremity of the Mount Peter MPA.

Infrastructure & Community Services

Development south of Edmonton is expected to progress south along Mount Peter Road with a requirement to reconstruct Mount Peter Road only as far as the first stages of development.

Early phases of development in the Mount Peter Business and Industry Centre will not require significant trunk road works, these being limited to traffic signal enhancements to the Bruce Highway/Thomson Road intersection.

With existing base traffic levels on the Bruce Highway between Edmonton and Gordonvale approaching trigger levels for upgrading the highway from two to four lanes, development in the vicinity of Draper Road/Maitland Road will require significant early works to State infrastructure. Department of Transport & Main Roads (DTMR) are currently considering funding and staging of these works to enable the sequencing of development in Mount Peter to be initiated as indicated above.

The existing Maitland Road alignment will initially be retained via the low flood immunity 'ford' crossing of Wrights Creek until such time that Draper Road development has a direct connection with Maitland Road.

A significant early infrastructure issue will be the provision of water and sewer services. Preliminary strategic assessment indicates there is potential capacity in the Gordonvale network in the southern areas of Mount Peter, subject to augmenting the Gordonvale

Wastewater Treatment Plant (WWTP). The northern areas of Mount Peter will need augmentations to the trunk connections and the WWTP in Edmonton.

The provision of energy via the Ergon electricity network can be readily delivered through extending the existing networks prior to major augmentation of the grid. Alternative energy sources are likely to be solar oriented due to the absence of trunk gas services in the Cairns Southern Growth Corridor.

For the purposes of this study it has been assumed that the cane rail line will remain in-situ throughout the development period. This may be subject to change following further investigation and consultation. Development fronts from the north and south will minimise the impact of the cane rail line, which is most significant at Maitland Road, the proposed Coopers Road District Centre and the southern stretches of Mount Peter Road where the cane rail line crosses the thoroughfare at-grade.

The completion of the Wrights Creek – Grays Creek Management Plan will recognise this major waterway corridor as a sub regional asset and attraction.

Park facilities will include approximately 8 hectares of open space comprising local and district recreational parks.

4.2 6-10 years

Vision

The emerging community now contains over 4000 residents and as this grows to over 10,000 residents and development extends towards the future centres, essential educational, community and recreational facilities will be delivered within Mount Peter.

Catalysts	Response
Edmonton Town Centre established	Edmonton Town Centre is established with retail, commercial and community facilities supporting the predominantly residential growth towards the Coopers Road District Centre.
Key employment generator located in Mount Peter Business and Industry Centre	Expanded initiatives to establish key employment generators within the north east precinct
Sport & recreation facilities established	Initial stages of district and metropolitan standard sport and recreational facilities in both the north and south of Mount Peter. Passive open space through the delivery of local and district recreational parks.
Community facilities established	Community building established near Draper Road and first primary school in place near Coopers Road.
Deppeler Road Interchange / Northern link road	Interchange (at-grade) and northern link road completed providing enhanced access for residents to the north east employment centre.

Infrastructure & Community Services

Access to the emerging regional centre in Edmonton will be critical and will trigger the need for road and bridge augmentations north of Peterson Road to link Chay Road with

Walker Road, also providing busway connectivity. It is to be noted that this link is included in Council's current Planning Scheme Policy 4:04:05 – Trunk Infrastructure Contributions and draft Priority Infrastructure Plan.

It is likely that an early at-grade connection to the Bruce Highway will be required at Deppeler Road to provide enhanced access to the NE Business and Industry Centre. The ultimate configuration and timing of roads in this area will be informed by ongoing Bruce Highway assessment and consultation by DTMR. Preliminary engineering assessment indicates that the northern east-west 4 lane sub-arterial link from the proposed Bruce Highway Deppeler Road interchange to Mount Peter Road will require an embankment cut at the northern end of the 'unnamed hill'. Various configurations and staging of the east-west sub-arterial could be adopted to limit the impact on the 'unnamed hill'. Consideration must be given to the noise, air and aesthetic impacts given the proximity of the existing community and also the environmental and cultural impacts.

Park facilities will include the first phase of a District Sports Park in the Coopers Road area and the initial staged works for the Metropolitan Sports Precinct north of Mackey Creek. The work will include sports fields, clubhouses and associated embellishments, with higher level facilities such as indoor facilities following at +10 years. Passive open space will be delivered through local and district standard recreational parks; these will provide connectivity to existing open space and incorporate recreational cycling and walking trails.

Other facilities will include a local multi purpose community centre established north of Draper Road. The first State primary school will be opened in the Coopers Road area.

4.3 11-15 years

Vision

The establishment of the busway with high frequency services linking Mount Peter to Cairns central provides a fundamental shift in the perception of Mount Peter, resulting in an increased focus of development around centres and an increase in the development density. The critical mass of residential development has established the requirement for a number of higher order community and retail needs in the district centre at Coopers Road, which ultimately delivers a Gross Floor Area (GFA) of approximately 20,000m² to support the employment base.

With significant development in both the northern and southern extremities of Mount Peter initial demand will also be realised for development in the second District Centre at Maitland Road towards the latter end of this period. By year 15 the population has reached approximately 21,000 people within the Mount Peter MPA.

Catalysts	Response
Establishment of the high frequency bus service	Increased public transport services lead to the potential to establish Transport Oriented Development (TOD) and higher densities around key stations.
Significant growth of Edmonton Town Centre	Increased retail, commercial and community facilities has firmly established Edmonton Town Centre as the sub regional centre and a major attractor for the Southern Growth Corridor, providing the higher order needs for the growing community of Mount Peter.
Establishment of Coopers	The initial establishment of the town centre creates the

Road District Centre	opportunity to develop greater choice in housing typologies. Development will frame a new town centre park.
Hussey Road Mixed Use Centre	Commence first stage of a metropolitan standard sporting precinct as part of emerging TOC at Mount Peter Road crossing of Wrights Creek.
Wright's Creek Bridge	Access to Coopers Road and Maitland Road centres is significantly enhanced by a new flood immune structure over Wrights Creek.
Maitland Road secondary centre uses support residential development	Initial retail, commercial and community facilities providing secondary services to residential development north of Draper Road and south of Maitland Road.

Infrastructure & Community Services

With the Draper Road development progressing north and connecting to Maitland Road there will be a need to realign Maitland Road to enhance flood immunity and provide a new crossing over Wrights Creek.

The Wrights Creek bridge infrastructure requirements are significant. Preliminary assessment indicates that a realigned Maitland Road (to the shortest practical crossing point) requires a bridge crossing of 185m total span from high bank to high bank. This route deviates from the Maitland Road reserve, and therefore there will be associated land acquisition and road construction costs.

Park services will include a District Sports Park delivered south of Maitland Road and passive open space delivered in local and district standard recreational parks and through linear recreational cycling and walking trails. With the Wrights Creek bridge crossing in place, and the Hussey Road centre supported by a transit station on the busway, the Metropolitan Sports Precinct will be viable in this location and will form a major focal point for the regionally significant Wrights Creek - Grays Creek corridor. It is expected that the first phase of rehabilitation works in the Wrights Creek – Grays Creek waterway corridor will have commenced.

A District standard multi purpose community centre will be established in the Coopers Road area and the first State secondary school will be opened.

The location of both the new cemetery and waste transfer depot facilities will be resolved and land acquired by Council.

4.4 16-20 years

Vision

Detached residential development in the Mount Peter centres is no longer the main form of housing in these areas. Improved road and public transport linkages unlock the potential for further 'conventional' development in the south west of Mount Peter fringing the western hill slopes and the existing key resource areas. Growing to 31,000 people, Mount Peter has a significant critical mass to encourage the establishment of higher order community facilities.

Catalysts	Response
Maitland Road Interchange completed	Greater external access to and from the southern precinct
Growth of Coopers Road District Centre	Increased retail, commercial and community facilities providing secondary services to Edmonton for the growing community east and west of Mount Peter Road.
Maitland Road Centre	Development of the key elements of the Maitland Road Centre results in additional attached product being established in the southern precinct.
Centres Land Supply	Development of Transit Oriented Development leads to integrated / attached product located around mixed use centres.
General Land Supply	Land development in the south west is unlocked by improved road and public transport access and supports the growth of mixed use centres at Hussey Road and other locations along the mass transit route.

Infrastructure & Community Services

Upgrades to the Bruce Highway will ultimately require a grade separated interchange at Maitland Road and given the retention of the cane rail bridge over the Bruce Highway this will require relocation of the proposed grade separated interchange. Relocation of the junction to the north compounds the separation issues with respect to accessibility for the residential population south of Maitland Road; therefore, by agreement with DTMR, the junction has been indicatively shown as relocated 300m to the south of the existing location. The ultimate solution is subject to further detailed investigation by developers and/or DTMR.

An expanded sports precinct on Mount Peter Road and district standard facilities near Hussey Road and Deppeler Road will provide extensive active recreation space. Passive open space will be delivered in local recreational parks to the south west of the MPA and in district recreational parks providing connectivity to open space in the Maitland Road area. Linear cycling and walking trails will be extended to the surrounding hills and the flood plains to the east of the Bruce Highway. Metropolitan recreational parks in the Wrights Creek – Grays Creek waterway corridor will be partially complete.

4.5 21-25 years

Vision

With many of the key elements established, the final stage of the process is predominantly infill and higher densities based on Transit Oriented Development in key centres.

Catalysts	Response
Land Supply	Development is predominantly integrated / attached

	product located around centres and the final stages of larger lot product in the western fringes.
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Infrastructure & Community Services

The physical infrastructure to support the ultimate population will be in place and the final stages of formal sports facilities, and also passive open space in the Wrights Creek – Grays Creek corridor, will be completed towards the latter end of this period.

5. KEY CONSIDERATIONS FOR DEVELOPMENT

5.1 Overview

Planning for the Mount Peter area is focused within the Mount Peter MPA boundary, however, consideration of the wider area context is critical. The following considerations have influenced the development of the Mount Peter Structure Plan.

- Surrounding town centres of Edmonton and Gordonvale and their role and function and characteristics were considered in the identification and placement of centres within Mount Peter. The role of Edmonton Town Centre as the primary centre within the Southern Growth Corridor is supported by the nomination of lower order centres within Mount Peter. The existing role and function of Gordonvale influences the location of centres within the southern portion of the planning area, ensuring Gordonvale would not be adversely impacted by a highway based centre that could potentially result in the demise of the Gordonvale centre.
- Creation of a defined centres hierarchy that includes the surrounding centres of Edmonton and Gordonvale, establishing clear direction in relation to entitlements for each of the development units.
- The need to create walkable communities that move people away from the increasing dependence on private vehicles. The connectivity of centres is further enhanced by the establishment of a mass transit busway and the identification of key linear open space corridors.
- Mixed use outcomes that support the walkable communities through creating a number of smaller centres that establish a sense of place within the community, avoiding the commercially driven tendency to locate all retail into one major centre in Mount Peter.
- The desire to create more sustainable communities with a variety of housing types, resulting in a more compact urban footprint and reducing the impact on the environment and agricultural land from ever-increasing urban sprawl.
- The need to establish an overall management and design strategy for the Wrights Creek – Grays Creek corridor.

Identifying these key considerations for development early in the process enhances the potential for the delivery of desirable forms of urban development and the equitable distribution of facilities and attractions throughout the Mount Peter MPA. The key considerations focus on broad community benefit and good planning outcomes rather than the short term interests of individual landowners and developers.

5.2 Economic Development and Employment

Population-driven economic activity in sectors like retail trade, personal and community services will be integral to the economic growth of Mount Peter. Close to home, 'white-collar' employment opportunities in areas including advanced professional business services will be provided to deliver a range of employment opportunities. This includes home-based business opportunities.

Economic sectors recognised as being key to Mount Peter's sustainable economic future include knowledge-based businesses in sectors such as professional business services, health and education, and knowledge intensive applications for existing industries such as horticultural processing, manufacturing and retail. Other population-driven industries featured prominently in employment forecasts include construction and trade services industries, warehousing and transport-based industry.

In determination of employment uses, due consideration is given to the economic policies, principles and economic drivers of influence in Mount Peter, the Southern Growth Corridor and the wider Cairns and FNQ region. Regional Activity Centres (which include Edmonton) are identified in the FNQ Regional Plan as having “an increasingly important role in terms of employment and economic activity”. The regional activity centre at Edmonton is expected to be supported by job creation east of the Bruce Highway. This area has been included in the Mount Peter MPA to ensure that there is an integrated approach to land-use planning and transport infrastructure. The economic development of Mount Peter must complement rather than compete with the established and planned centres at Edmonton and Gordonvale.

To fulfil the aspiration for a diversity of employment choices close to where people live, planning for the Mount Peter MPA targets a level of employment self-sufficiency of 75% and a level of employment self-containment of 40% in line with the FNQ *Regional Plan 2009-2031* and consistent with the recommendations of the *Southern Growth Corridor Integrated Land Use Transport Study (SCILUTS)*. A number of self-sufficiency rates (of 50%, 60%, 70% and 75%) for Mount Peter were prepared and considered and while the 75% self-sufficiency target is optimistic, it is considered that the location of the Mount Peter Business and Industry Centre in the north-east of the study area will play a large part in generating the employment required to achieve the target self-sufficiency rate.

The Mount Peter Structure Plan fosters economic diversity, skills and innovation and integration by:

- providing a mix of activity centre office spaces and business/technology park spaces that accommodate advanced forms of commercial and industrial development in manufacturing, processing, construction, servicing and assembly that build on the region’s traditional industry strengths and new opportunities for economic growth;
- providing employment land that is able to contribute to the region’s capacity to accommodate larger footprint employment lands to build on the region’s competitive advantages and specialisations;
- complementing the existing industrial structure and the needs of the local population by providing niche industrial development opportunities in the form of locally oriented service industry opportunities and export-oriented high-tech manufacturing opportunities in a business/technology park setting;
- providing employment land for catalyst developments in health, such as a potential health employment hub, and education, such as a potential satellite university campus and a vocational and technical education facility such as a district level TAFE; and
- providing opportunities for professional business services to establish in home-based businesses and in Mount Peter’s activity centres.

The Mount Peter Structure Plan fosters a high level of employment self-sufficiency and self-containment by:

- provision of approximately 16,000 jobs with the job offer (mix of employment opportunities) meeting the highest quality standards in terms of the number and type of jobs;
- providing a diverse mix of retail, entertainment, civic and community service activities across a network of district, mixed use and local centres that complement and reinforce the intended centres hierarchy of the Southern Growth Corridor and Cairns; and

- complimenting the existing activity centre and industrial development structure of the Cairns Southern Growth Corridor, with a focus on meeting the needs of the local population as well as contributing to some wider regional needs.

Employment land on the eastern side of the Bruce Highway (the Mount Peter Business and Industry Centre) will be a regional attractor for employment and will accommodate a mix of compatible uses serving local and regional functions including:

- low impact industrial uses that require large footprints such as food product manufacturing, metal product manufacturing, wood and paper product manufacturing and mineral product manufacturing, and more general and service industry-type uses including machinery & equipment manufacturing, servicing and/or repairs, wholesale trade activities and construction industry activities (including fabrication and assembly);
- a number of mixed uses to support employment including local convenience, child care and health clubs;
- mixed use employment activities on land that supports the retail, commercial and community focus of the nearby Edmonton Town Centre (Edmonton being the preferred location for catalyst employment developments in health and tertiary education); and
- transport based industry on land that, due to its proximity and exposure to the regional transport network, is to be used for large scale transport and logistics activities.

The basic 'building block' of an activity centre network and hierarchy is in most cases retail activity. To this end, Mount Peter will provide for the establishment of appropriately sized and located retail nodes to attract residents and support the area's economic development in neighbourhoods west of the Bruce Highway.

Successful economic development of Mount Peter will require considered and targeted investment attraction strategies that complement and reinforce the vision for Mount Peter as a thriving economy characterised by individual, definable and walkable centres.

The CairnsPlan provides for District Centres to range in size from 5,000 sq.m to 15,000 sq.m and serve a catchment population generally ranging in size from 5,000 to 8,000 households. It further states that this is an indicative range only and that District Centres may be smaller or larger. The Mount Peter Structure Plan proposes higher residential densities than those typically found in other greenfield areas of Cairns to date.

Full consideration has been given to the Coopers Road and Maitland Road Precincts and their role in relation to Edmonton, which is the recognised 'primary' centre for the Southern Growth Corridor. The estimated retail demand per person and estimates of likely local capture have particular regard for the planned role and function of the Edmonton Town Centre as per the FNQ Regional Plan.

The distribution of retail and commercial employment (and corresponding floorspace) is informed by the population catchment in each Master Planning Unit (MPU) and the application of retail capacity benchmarks and expenditure capture benchmarks to ascertain the suitable size and distribution of employment across Mount Peter's planned centres. Planning considerations and objectives (as per the vision) determine the exact location of each centre in each MPU.

On this basis, the total centre-based retail floorspace that could be supported within the Mount Peter MPA must have regard for:

- an estimated total population of 42,500 distributed across the MPA according to the precinct densities determined through various streams of the Mount Peter Structure Plan process. This assumes larger concentrations of Mount Peter’s population and households in MPUs 7 & 8 (Maitland Road South), MPUs 2 & 4 (Coopers Road) and MPUs 5 & 6 (Hussey Road) in descending order);
- an average supportable retail floorspace of 1.5 sqm to 2 sqm per person (consistent with typical benchmarks);
- assumptions about local capture of potential local retail expenditure; and
- assumptions about potential retail turnover boost from expenditure by persons living elsewhere in the sub-region, outside the Mount Peter MPA (at least 10% turnover boost is assumed which is consistent with standard benchmarks).
- a typical retail expenditure capture benchmark for a greenfield area like the Mount Peter MPA of 60% to 65%. It should also be noted that benchmarks can vary, but in the case of the Mount Peter MPA, 60% to 65% of available retail expenditure by the local population of 42,500 being captured by Mount Peter’s planned retail centres is considered reasonable in light of the planning intent and the proximity of the Mount Peter centres to other centres in the planned hierarchy.

In summary:

Ultimate Population of Mount Peter MPA	42,500
Supportable Retail floorspace per person	1.5 to 2.0 sqm
Total supportable retail floorspace (approx.)	1.5 to 2.0 x 42,500 = 63,750 to 85,000 sqm
Applying conservative assumption of 1.5 sqm per person	63,750 sqm
Assumed Retail Expenditure Capture in the Mount Peter MPA’s Centres	60% to 65%
Potential Supportable Retail Centre Floorspace in Mount Peter MPA Centres assuming more conservative 60% expenditure capture	60% of 63,750 sqm = approximately 38,000 sqm

[Note: Refer to the Economic Development and Employment Technical Report page 68 Table 13 for detail on the retail floorspace for the District and mixed use centres.](#)

Applying the simplified assumptions outlined in the above table results in a supportable retail floorspace of approximately 387,500 sqm (after rounding). The estimated supportable centre retail floorspace has regard for the policy intent, that is, that planning for Mount Peter recognise and build on the existing urban form. It is the intention that the planned centres in Mount Peter complement rather than compete with the established and planned centres at Edmonton and Gordonvale.

5.3 Natural Environment

Areas of High Development Constraint in the Mount Peter MPA are typically associated with steep land and visual amenity, bushfire hazard, identified waterway envelopes, remnant vegetation, habitat for and known occurrences of significant wildlife species, existing extractive industry operations and separation areas, the Declared Fish Habitat Area and associated setbacks, the State’s coastal zone and the World Heritage Area. These have been outlined in *Map 01 Mount Peter ~~Structure Plan Area~~Master Planned Area – Natural Environment*.

Areas of Moderate Constraint are typically associated with development setbacks from remnant vegetation, bushfire hazard and waterways not recognised under the Water Act 2000. Additionally, these relate to sections of the Mount Peter MPA which currently support primary industry operations or areas of contaminated land which may be included within the development area once current land uses cease.

The Mount Peter MPA is classed into three "Development Constraint" categories: High, Moderate and Low. The areas of land that these constraints affect are outlined as follows.

- High Development Constraint – ~~1,645~~1,701 ha.
- Moderate Development Constraint – ~~162~~166 ha.
- Low Development Constraint – ~~1,523~~1,463 ha.

Steep Land & Geological Stability

Urban development will not occur on slopes greater than 1:6 and upwards, including ridgelines, unless it can be demonstrated that there is an overriding need for such development and that it is for essential community service infrastructure.

Bushfire

Bushfire Management Plans will be required to support development applications submitted to CRC for land identified as a medium or high bushfire hazard management area or which occurs within a safety buffer.

Waterways and Riparian Corridors

Development within waterway envelopes is avoided unless it can be demonstrated as constituting essential community infrastructure. Water quality devices within overland flow paths are to be in-line to ensure minimal impacts on waterways.

Significant Wildlife Species

Areas that provide known and likely core habitat resources for significant wildlife species are appropriately protected from the impacts of adjacent urban land uses, are enhanced through focused rehabilitation activities and are suitably managed in perpetuity. These areas include:

- the Wet Tropics World Heritage Area;
- the foothills of the Isley Hills, which provide an important role in protecting the values of the adjoining Wet Tropics World Heritage Area;
- the Trinity Inlet Declared Fish Habitat Area including Blackfellows Creek up to 20m downstream of the Bruce Highway and Wrights Creek up to 20m downstream of the bridge on Page Road;
- areas identified as Essential Habitat on the Certified Regional Ecosystem Map;
- areas identified as remnant vegetation on the Certified Regional Ecosystem Map;
- core habitat of the Common mistfrog and Australian lacelid (*Endangered – EPBC Act and NC Act*) associated with the upper reaches and coastal plains of Wrights Creek, Fantin Creek and Stony Creek;
- core habitat for *Vulnerable* plant species along Sandy Creek, which also provides a natural linkage between Isley Hills and the Central Ridge and functions as a significant wildlife corridor;

- the sections of Stony, Grays, Wrights, Fantin and Ferrando Creeks which provide a linkage between Isley Hills/Mount Peter and the Central Range, which are highly likely to contain core habitat for significant wildlife and which function as important wildlife corridors;
 - the Central ridge which is in good to excellent condition (potential and known habitat for various significant wildlife) and small sections of creek west of the Bruce Highway (which provide potential habitat for Vulnerable *Myrmecodia beccarii* and *Eleocharis retroflexa*);
 - the lower reaches of Blackfellow, Stony, Wrights and Mackay Creeks which provide supplementary habitat for significant wildlife species and may still provide a focal point for wildlife movements;
 - waterways, waterbodies and areas which support native vegetation communities and which provide significant wildlife linkages/ecological corridors between areas of remnant vegetation; and
 - areas in which significant wildlife species have been previously recorded.
- ~~the Trinity Inlet Declared Fish Habitat Area including Blackfellows Creek up to 20m downstream of the Bruce Highway and Wrights Creek up to 20m downstream of the bridge on Page Road;~~
 - ~~areas identified as Essential Habitat on the Certified RE Map;~~
 - ~~areas of remnant vegetation;~~
 - ~~waterways, waterbodies and areas that support native vegetation communities and provide significant ecological corridors between core habitat patches; and~~
 - ~~areas in which significant wildlife species have been previously recorded.~~

Development is to be avoided upstream of or directly adjacent to areas identified as core habitat for the Common mistfrog or Northern Lacelid (this includes development which promotes in-stream recreational activities such as swimming). Rehabilitation efforts must focus on enhancing and increasing habitat for these species within the adjoining sections of waterway envelope.

Efforts ~~should be~~must be made to actively rehabilitate those waterway corridors which currently support non-remnant vegetation or are otherwise heavily disturbed. Rehabilitation of these corridors has the potential to enhance and increase native and threatened wildlife movement opportunities and habitat availability within the Mount Peter MPA.

Extractive Industry

Existing extractive industry operations will remain within the Mount Peter MPA, namely Key Resource Areas KRA 13 and KRA 40. These areas form part of the extractive resource precinct.

Buffers consistent with the requirements of SPP 2/07 to KRA 13 and KRA 40 will be maintained between sensitive development and the current/future anticipated boundary of the extractive operations to mitigate the potential for nuisance that may be caused by noise and vibration.

The planning designation of land within the KRA buffer areas is to remain as Rural until the KRAs are extinguished. The applicability of a 100m development buffer to the

transport route from KRA 13 and KRA 40 needs to be determined through appropriate noise, dust and odour investigations.

Aquaculture & Poultry

An existing poultry farm located within Mount Peter MPA on Lot 3 on SP134760 will not remain under the structure plan and an existing aquaculture facility located within the Mount Peter MPA on Lot 11 on SP173568, is unlikely to remain as a desired use for this area.

In the interim, buffers will need to be maintained between urban development and existing aquaculture/poultry facilities.

Acid Sulfate Soils

Development of land located below the 20m AHD contour will be carried out in accordance with the requirements of *State Planning Policy 2/02 - Planning and Managing Acid Sulfate Soils (SPP 2/02)*.

Pest Species

Adequate vegetated buffers are to be maintained between existing agriculture and future urban development. Urban development within the MPA is to be designed such that legitimate pest management practices on adjacent agricultural/rural land are not restricted.

Air Quality

A 10m wide buffer will be established between urban land uses and the Bruce Highway.

An interim strategy will be required as part of the Master Planning stage to manage the development interface with the aquaculture/poultry facilities prior to these being removed from the Mount Peter MPA.

Acoustic Environment

Acoustic issues will need to be considered carefully at the master planning stage particularly in relation to issues which may arise as a consequence of interfaces with sub-arterial roads and Key Resource Areas and/or any other noise related impacts on amenity.

Coastal Areas and Fish Habitat

The Structure Plan is to make appropriate provisions to achieve the coastal management outcomes, principles and policies sought by the *State Coastal Management Plan (SCMP)* and give sufficient and due regard to the Desired Environmental Outcomes (DEOs) for the downstream Key Coastal Locality (namely Trinity Inlet).

Development is to be excluded from the Coastal Management District and Erosion Prone Area unless it can be effectively demonstrated that:

- the development is for essential community infrastructure; and
- no suitable alternative location or site exists for this infrastructure; and
- establishment of the development would achieve compliance with the coastal management outcomes, principles and policies of the *SCMP* and would not adversely affect the DEOs for the downstream Key Coastal Locality 10.1 (Trinity).

Where required, buffers to the Declared Fish Habitat Area are to be revegetated and disturbance to marine plants will be avoided.

Structures proposed within or across a waterway will be located and designed to ensure:

- that fish passage is adequately provided for; and
- alterations to existing flow velocities and/or patterns are minimised.

Contaminated Land

Should alternative development be proposed for sites listed on the Environmental Management Register or Contaminated Land Register a Human Health and Ecological Risk Assessment is to be undertaken in support of individual development applications within the Mount Peter MPA which assess contamination levels, exposure risk and remediation requirements.

Sugar cane farming has the potential to result in land contamination via the use of organochlorine and organophosphate pesticides. A Human Health and Ecological Risk Assessment is also to be undertaken in support of individual development applications within the Mount Peter MPA for developable land to be converted from sugar cane cultivation.

5.4 Transport and Mobility

A series of transport principles have been developed to guide future growth and planning of the transport system for the area. These principles are summarised as follows:

- Minimise trips by car, both internally and externally to the Mount Peter MPA;
- Encourage self containment of employment and services to reduce the impact on the external road system;
- Development based on walkable neighbourhood and transit oriented development principles;
- Early provision of public transport services, including:
 - land use which is supportive of public transport, including higher densities and a mix of uses;
 - appropriate public transport infrastructure and services to make public transport a favourable and convenient choice;
 - provision of a busway in line with development staging; and
 - introducing behaviour change programs to inform residents of their choices.

The key consideration in the development of the transport system for the Mount Peter MPA, is the promotion and pursuit of sustainable transport opportunities. It is recognised that the MPA will need to achieve a high mode share of public transport, pedestrian and cyclist trips if it is to succeed and function in a sustainable way.

Currently within the study area there is limited road provision due to the rural nature of the development. Key road elements are the Bruce Highway, Mount Peter Road and a number of east west routes which are primarily rural in form. Maitland Road - in the south of the site is a designated haulage route for a key resource area.

Design and development of the Bruce Highway upgrade is being undertaken by the Department of Transport and Main Roads (DTMR). DTMR is also undertaking detailed studies into the design of the busway in the Southern Growth Corridor. The Structure Plan will need to inform and ultimately take account of the proposals as they develop.

Mode Share Targets

Previously identified targets for transport sustainability in the Southern Growth Corridor are:

- at least 10% of all Cairns Southern Growth Corridor trips by public transport by 2016 (*Cairns Integrated Public Transport Study - CIPTS*);
- at least 20% of all peak Cairns Southern Growth Corridor trips by public transport by 2036 (CIPTS);
- at least a 50% increase in person trips by cycling by 2011 (*Qld Cycle Strategy*);
- at least a 100% increase in person trips by cycling by 2021 (*Qld Cycle Strategy*); and
- 40% self containment of trips in the Southern Growth Corridor (SCILUTS).

In attempting to achieve these ambitious modal targets it is important to target actions that are more likely to attract modal shifts. Experience has shown that shorter distance, local trips (i.e. <5km) are more likely to result in a modal shift. Integrated land use and transport planning is essential and a supportive transport system will need to be in place in the early stages of development of Mount Peter.

Public Transport

The Cairns Transit Network Study has identified a desirable indicative route for a future busway through the Mount Peter MPA. DTMR is currently undertaking more detailed investigation of this route and its integration into centres and the road hierarchy. A strategic alignment is shown on *Map 12 Mount Peter ~~Structure Plan Area~~ Master Planned Area - Transport and Mobility Infrastructure - Public Transport Plan*. Further investigation by DTMR on the busway has concluded that the busway should be located in the central median of sub-arterial roads in Mount Peter.

The north coast rail line runs parallel to the Bruce Highway. However, existing uses do not allow for the adaption of heavy rail as the mass transit route into the Cairns CBD.

The FNQ Regional Plan indicates that park and ride lots can only be a part of the system if not within an activity centre or within transit oriented communities. A location close to the Bruce Highway near Draper Road has been tentatively proposed and will be resolved as part of further investigation by DTMR.

A public transport plan has been proposed for the Mount Peter MPA and is shown on *Map 12 Mount Peter ~~Structure Plan Area~~ Master Planned Area - Transport and Mobility Infrastructure - Public Transport Plan*. The proposed network results in 90% of developable land being located within 800m of the proposed busway corridor and/or 400m of a local bus route. The majority of the area which is not serviced is located in the east of the Mount Peter Business and Industry Centre east of the Bruce Highway.

Walking and Cycling

The creation of a vibrant and attractive town centre or local neighbourhood is dependant on a high quality pedestrian and cycle network and environment. A network of pathways will encourage more people to walk and cycle to their destinations, therefore reducing car use.

A 3km walk is approximately 30 minutes and it takes an average cyclist 20-30 minutes to travel 6kms. With the Mount Peter MPA being approximately 7km long by 4km wide,

cycling can be a viable transport alternative and will contribute to sustainable outcomes. Cairns, despite the tropical weather, already has a higher proportion of cyclists compared to other regional towns in Queensland and, given the flat terrain in parts of Mount Peter, an integrated pedestrian and cycle network could see the proportion increase further.

A walk and cycle plan has been proposed for the Mount Peter MPA and is shown on *Map 11 Mount Peter ~~Structure Plan Area~~ Master Planned Area - Transport and Mobility Infrastructure - Walk and Cycle Plan*.

Road Networks

The draft Structure Plan has been developed with an assumption that in the ultimate scenario the Bruce Highway will include three grade separated interchanges where it passes through Mount Peter. This includes a new grade separated interchange at Deppeler Road, a relocated grade separated Maitland Road interchange (300m to the south to avoid Cane Rail Bridge, subject to further investigations by DTMR) and an upgraded interchange at Draper Road. Interchange configurations ~~have been~~ are to be confirmed by DTMR following the publication of the Cairns Bruce Highway Upgrade Study (June 2010), although proposals are subject to further study at Maitland Road and Draper Road.

Interim upgrade works will be required and DTMR is undertaking traffic modelling to confirm preliminary infrastructure requirements.

There are no conflicts between the network proposed in the Mount Peter Structure Plan and the current Bruce Highway planning by DTMR. The detailed traffic modelling undertaken for the Mount Peter MPA confirms the Bruce Highway will need to be a grade separated six (6) lane form north of Deppeler Road and a grade separated four (4) lane form south of Deppeler Road.

A hierarchy of roads has been developed for the Mount Peter MPA (*Map 10 Mount Peter ~~Structure Plan Area~~ Master Planned Area - Transport and Mobility Infrastructure - Road Hierarchy*). This provides for a sub-arterial road network utilising Maitland Road and Mount Peter Road to provide access to the regional centre of Edmonton and centres within Mount Peter. Demands estimated on these roads indicate four (4) lanes will be sufficient, with the exception of Maitland Road in the vicinity of the Bruce Highway where six (6) lanes will be required for the approach to the interchange from the District Centre. A new four (4) lane east west sub-arterial road is also required to connect Mount Peter Road to the proposed Deppeler Road interchange and the principle employment area.

A sub-arterial road network of two (2) lane roads supplements this sub-arterial network, providing connections to destinations within the Mount Peter MPA. The only exception to this is the four (4) lane sub-arterial road proposed through the Business and Industry Centre (between Roberts Road interchange and Deppeler Road interchange).

Cane Rail

The Cane Rail line through Mount Peter is a significant operational constraint to meeting the desired objectives outlined in the Mount Peter Structure Plan. The impact of the line is greatest in the three (3) month cane harvesting period when up to six (6) cane trains per day, up to 600 metres in length, traverse the site at 10-40km/hr, either servicing local cane farms or providing a link from the Barron River delta to the mill in Gordonvale. Elsewhere in Cairns, where the cane line is currently traversing through existing residential areas, it is generally located within a fenced corridor.

Whilst there is future potential to implement a diversion of the Cairns to Gordonvale cane rail line, any proposal to do so will first require agreement, consultation, investigation,

and planning with the Mulgrave Mill (as owners of the cane rail line) State Government, Cairns Regional Council and cane growers. Therefore, it is has been assumed that the main north-south line through Mount Peter will remain in place for a minimum of 20-25 years; in effect requiring staged infrastructure configurations to accommodate an asset that may eventually be relocated.

In the short term the immediate infrastructure impacts relate to the retention of three at-grade cane rail crossings.

In the medium term and ultimate scenario (assuming the cane rail remains), the delivery of a connected community in the Coopers Road District Centre is challenging and will require detailed consideration at the master planning stage. In the south, it is expected the Bruce Highway/Maitland Road intersection will be relocated approximately 300 metres to the south of the current location, thereby facilitating the construction of a grade separated interchange at this location and also avoiding the need to cross the cane rail line on Maitland Road if travelling east-west. The associated realignment of Maitland Road facilitates a link into the proposed sub-arterial road bridge crossing over Wrights Creek. The existing Maitland Road would be retained as a local road with the designated haulage route diverted to the new route.

The retention of the cane rail lines within Mount Peter MPA is not considered a preferred urban outcome for the area, causing considerable disruption to the urban form, connectivity and overall site permeability. Master Plans will need to consider the following with respect to integrating the Cane Rail line.

Sub-arterial Roads	Where the alignment of the cane rail impacts the upgrade or creation of a road, the design must incorporate the cane rail to minimise the impact on movement efficiency
Busway	<p>Where the cane rail alignment is combined with the busway, the bus, road and rail design must be undertaken to minimise impacts on the ability for the busway to function. A typical design outcome is illustrated in the design below.</p>  <p>Where fencing is required, the use of transparent materials such as perspex is desirable to provide better sightlines and legibility.</p>
Residential	Where the cane rail passes through residential areas, the urban form is to be designed to minimise any adverse affects through locating the rail "mid block". The design should allow for areas of land within the rail corridor to be easily joined to abutting

	allotments should the cane rail be removed in the ultimate scenario or earlier.
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5.5 Community Facilities

Currently the relevant features of the existing social context for the planning of Mount Peter include the following:

- There is a shortage of community facilities and services relative to other parts of Cairns, and a reliance on the facilities and services in central Cairns. There is very little spare capacity in existing services and facilities that would be available to meet the needs of population growth in Mount Peter.
- Current community issues and concerns include lack of public transport and poor access to services, lack of resources and opportunities for young people, lack of housing choice as people age, and lack of cultural activity and vitality in the area.
- Major facilities are likely to be located predominantly outside the Mount Peter MPA (for instance in Edmonton as the principal activity centre for the Southern Growth Corridor). Therefore, there are significant challenges on staging and delivering locally based facilities to meet community needs in the short term.

For a population of approximately 42,500 people, a variety of community facilities will be required at local neighbourhood and district levels. These will need to make provision for:

- multi-purpose space for a variety of community activities and programs for all sections of the community;
- meeting space for community groups and organisations;
- workshop spaces suitable for creative activity such as photography, pottery, music;
- performance and exhibition spaces for cultural activity;
- specialist areas for activities for young people, for children, for older people and people with a disability;
- accommodation for agencies and organisations to deliver services (eg Home and Community Care services, family support services);
- spaces for sessional and outreach services (eg early childhood clinics); and
- a focal point for community information development initiatives and the building of community networks and support structures.

The identification of land for Council community facilities will need to occur in accordance with the specifications outlined in the CRC Public Parks and Land for Community Purposes -Trunk Infrastructure Planning Study (referred to as the PPLCP Study). These have been

summarised in the table below.

Community facility category	Description	District level	Metropolitan (city-wide)
Cultural activity space	Library, community arts, performance, display and event space, museums and galleries	Minimum 1500 sqm within 5 kms of most residences	Minimum 1 ha Provided within 15-20 km of most residences
Community meeting and activity space	Community halls and centres, indoor recreation centres, youth centres	Minimum 2000 sqm within 5 km of most residences	Minimum 1 ha Provided within 15-20 km of most residences
Community service facility	Space for community service agencies	Minimum 2000 sqm within 5 km of most residences	Minimum 1 ha Provided within 15-20 km of most residences
Formal memorial space	Memorial gardens, cemeteries	1000 sqm within 5 km of most residences	Minimum 10 ha Provided within 15-20 km of most residences

Council community facilities proposed for Mount Peter combine elements of cultural activity space, community meeting and activity space and community service facility, making it difficult to address the land requirements for different categories of facility. The following distribution of land required for Council community facilities is proposed.

Facility	Indicative minimum site area
Local Multipurpose Community Centre – MPU3	3,750 sqm
Local Multipurpose Community Centre – MPU6	5,500 sqm
Local Multipurpose Community Centre – MPU8	4,500 sqm
District Multipurpose Community Centre – MPU2 (district multi-purpose community centre, cultural facility, library, youth centre)	3 ha
District Multipurpose Community Centre – MPU7 (district multi-purpose community centre)	2 ha
Mount Peter Cemetery / Crematorium	6.375 ha
TOTAL	12.75 ha

The Department of the Premier and Cabinet (DPC), formerly the Department of Education and Training (DET), has provided advice to its standards, planning processes and delivery

arrangements for schools for Mount Peter. An indicative need for five (5) new primary schools, each with a site area of about 7 ha, and two (2) new secondary schools, each with a site area of about 12 ha has been identified. This would total about 66 ha of land for state school requirements.

The Queensland Police Service has recently reviewed its requirements for facilities within Mount Peter and advised that it will require a 24,000m² site within Mount Peter MPA that is free of flood constraints. [The Department of Community Safety has existing facilities in Edmonton and Gordonvale and their performance in meeting service delivery needs will be continuously monitored as development progresses. Facility provision will be based on standard benchmarks which require population thresholds of over 25,000 people and depend on response time profile, incident history, proximity to existing fire and rescue stations and population forecasts.](#)

Cairns Regional Council uses the standards and requirements of the Queensland State Library as the basis for its planning of new library facilities. The State Library standards suggest that a facility of about 1,900 sqm will be required.

Proposed locations for these facilities are show on *Map 15 Mount Peter ~~Structure Plan Area~~ Master Planned Area – Communities Facilities Infrastructure.*

5.6 Cultural Heritage

The history and cultural heritage of the Mount Peter MPA includes indigenous cultural heritage and historic sites associated with the former mining, timber and cane growing industries. All indigenous cultural heritage initiatives will need to be endorsed by the Aboriginal parties (the Gimuy Walubarra Yidinji and Lower Coastal Yidinji Peoples) of the area. Present day cultural heritage assessments (indigenous and non-indigenous) of the Mount Peter study area, as much as they are suitable for the preparation of the Mount Peter Structure Plan, are not an exhaustive or comprehensive assessment with respect to the significance of sites identified. For this reason there is potential for further archaeological sites to be encountered. Sites currently known to have historical and cultural significance are shown on *Map 04 Mount Peter ~~Structure Plan Area~~ Master Planned Area – Elements of Historical and Cultural Significance.*

Where possible, all recognised non-indigenous sites should be retained and conserved in situ. Determining which heritage sites within the Mount Peter MPA will be retained and which will be removed will require a cultural heritage significance assessment of each identified site and a prepared statement of significance for the site.

Development of a cultural centre that could be a focal place for the maintenance and practice of cultural pursuits and responsibilities is an important aspiration for the Yidinji People. Interpretation and recognition of the Mount Peter area's history can be maintained via key sites linked by heritage walks, signage and place naming. Aboriginal parties are keen to see Yidinji names adopted for the hill currently known as the unnamed hill (proposed as 'Bunda Meringa') in addition to some streets/public places developed as part of the development of the Mount Peter area.

A Cultural Heritage Management Plan (CHMP) or agreement will be required at the beginning of any phase of development and by each developer. The CHMP or agreement will entail consultation and agreement with the Gimuy Walubarra Yidinji and Lower Coastal Yidinji Peoples and will outline a process for assessment and management of all identified Indigenous sites, places, areas of concern and inadvertent discoveries.

In addition to the above, consultation to date has identified a number of key aspirations for the Aboriginal Parties in relation to their on-going connection to and responsibilities for country. These are:

- a firm commitment from CRC in regard to their engagement with the Aboriginal Parties. This may take the form of an Memorandum of Understanding or other appropriate documentation that recognises the Aboriginal Parties' connection to and responsibilities for the Mount Peter area and sets out a possible social commercial arrangement between CRC and the Aboriginal Parties for the area; and
- the management of the 'Unnamed Hill' area and the Wrights Creek area on the western border of the MPA.

5.7 Housing

The context for housing within the Mount Peter MPA is provided by the existing housing situation in the area, and statistical data is presented at the level of the Statistical Local Area (SLA) within which the Mount Peter MPA is located, and at the level of Cairns Local Government Area (LGA). The following are the salient factors:

- The vast majority of existing dwellings are detached (85% in the SLA);
- The median house price in the Cairns LGA was \$385,000 in September 2008, while the median unit price was \$245,000;
- The increase in housing prices between 2000 and 2007 was steep. Houses rose 132% from \$146,000 and units rose 75% from \$126,900. Only during the course of 2008 have prices stabilised;
- Median rents have also risen steeply, and the median for a new letting of a 3 bedroom house was \$320 a week in September 2008;
- The Cairns LGA has lower rates of home ownership than the Queensland average;
- The LGA has a higher proportion of families and a lower proportion of older people than the Queensland average.

There are three significant strategic opportunities at Mount Peter. The first is to provide a wide diversity of dwelling types, to ensure that housing suits a full range of households and thus promotes a diverse and sustainable community. The second is to apply the principles of Universal Housing Design to ensure some of the new housing is adaptable and therefore suited to people at all stages of their lives. The third is to cater specifically for the increasing population of older people by providing opportunities for age-specific housing and residential aged care.

The issue of housing affordability is outlined in the context of the observation that the median-priced home in the Cairns area now costs five times the median annual income, up from three times the median in 2001. Data on the increasing extent of affordability problems is presented, along with recommended options that may improve affordability at Mount Peter, including:

- maximising housing choice, including construction of a proportion of small dwellings;
- investigating options post structure planning process for delivering sub-market-priced housing, probably in partnership with government; and
- ensuring that there is the opportunity for the Department of Communities' to build or acquire social housing.

The issue of housing mix and density is a central issue for all aspects of the planning process for the Mount Peter MPA. The proposed model for development - which is based on walkable neighbourhoods - facilitates the provision of a wide variety of housing by identifying a series of centres, and by varying the density and type of housing to be constructed according to the distance from a centre, with generally the smallest, and most dense dwellings being built within each centre. A population of 42,500 will involve the provision of a much larger proportion of small lot housing, attached homes, and apartments than has been usual in most recent residential developments outside of the central Cairns area.

Desirable outcomes for housing in the Mount Peter MPA can be summarised as follows:

- Provision of a wide variety of dwellings, suited to a wide variety of households.
- Opportunities for older people's accommodation.
- 15% of new dwellings to be adaptable.
- An affordable housing delivery strategy is negotiated and implemented, based on a partnership between landowners, developers, and all levels of government. As a benchmark, it is proposed that 10% of dwellings should be affordable for purchase by households in the lowest 40% of the income range; and at least 20% are affordable for rent by households in the lowest 40% of the income range.
- Delivery of market-priced housing i.e. smaller dwellings (65m²) and dwelling types that are inherently low-cost (eg. shop-top housing).
- The development framework allows flexibility for public and/or community housing to be provided either through direct development or by spot purchase.
- A special purpose not-for-profit Housing Company model is investigated as a potentially suitable management model for social and affordable housing.

5.8 Sport and Recreation

Demand for sport and recreation facilities in the Cairns region outstrips supply and many existing facilities are operating at capacity and/or beyond their design life and need to be upgraded or replaced to meet current demand.

Issues impacting on sport and recreation include the inadequate provision of land and facilities in Cairns to meet demand, the poor standard or coordination of facilities, prohibitive costs of hiring/leasing facilities, limited multi-use of some facilities due to lease arrangements, and future population and demographics.

The current location of the Cairns Target Shooting Association is not appropriate in a future residential area and the gun club will need to be re-located in the medium term.

There is a need for planning to provide opportunities for passive recreational pursuits and active sport pursuits at local, district and metropolitan levels.

Mount Peter contains significant areas of constrained land not suitable for urban development. Opportunities to use constrained land for planned provision of recreational facilities, provided they meet design standards and provisions of Council's Priority Infrastructure Plan, need to be considered.

Staged resource provision and funding opportunities need to be considered to ensure open space, sport and recreation facilities are delivered in conjunction with actual community growth and needs.

Key objectives in Mount Peter include:

- provision of locally accessible facilities to meet the needs of the population and to integrate the planning and delivery of facilities with the master planning process;
- provision of facilities and 'hang out' spaces appropriate for youth and younger people, who make up a large proportion of the population in the Southern Growth Corridor and who have high participation rates in sport;
- provision of integrated pedestrian pathways and cycleways;
- location of open space, sport and recreation facilities in constrained parts of the study area that may not be suitable for other land uses;
- clustering of sport and recreation facilities in hubs or precincts to maximise resource efficiency and promote convenient access, usability and community identity;
- adoption of community management structures as a means of building and promoting community capacity building and the formation of community identity; and
- creation of a sub regional attraction of recreational value along the Wrights Creek/ Grays Creek Corridor.

Based on the target population for Mount Peter and the open space minimum supply requirements contained within the Priority Infrastructure Plan (PIP), a minimum of 191 hectares of land will be needed for open space, sport and recreation. This provides for:

- 106 hectares of land for informal recreation open space; and
- 85 hectares of land for organised sporting open space;
- Active open space includes the following:
 - 2 Metropolitan sports parks at 45 hectares in total
 - 4 District sports parks at 40 hectares in total

Map 13 Mount Peter ~~Structure Plan Area~~ Master Planned Area – Sport & Recreation and Open Space Infrastructure provides an indicative ~~special~~ spatial distribution.

It is recommended that once a population of 4000 – 5000 persons is established, a more clearly defined demographic profile and associated detailed needs assessment and strategy should be prepared for the future Mount Peter population. This will identify the particular sporting facilities to be provided within the recommended district sports parks and metropolitan sporting precincts, and consider in detail how sport and recreation will contribute to community capacity building and the formation of community identity.

5.9 Stormwater

Flooding

In accordance with National, State and Local Planning Policies, areas intended to be developed are to be located above the 100 year ARI event. For the Mount Peter MPA, the exclusion of all development within the existing 100 year ARI flood extents as defined in the preliminary flood model is not an acceptable working principle as the remaining area is insufficient to achieve the objectives for the study area and would lead to conflicts with

the FNQ *Regional Plan 2009-2031*. Hence, floodplain filling will be necessary to achieve the objectives for the Mount Peter MPA.

Whilst the results of the existing condition flood modelling are generally conservative and broad in nature, they are based on best practice engineering principles and provide a good basis on which to make broad planning decisions for the development of the Structure Plan. Further adjustments will be required to the flood modelling and these can be addressed during the preparation of Master Plans, which would then be based on more accurate data and refined assumptions.

Key principles include the following in determining flooding constraints:

- Ensure efficient drainage network which provides capacity for stormwater discharge and minimises flooding risk from major rainfall events.
- No loss in floodplain storage.
- No unacceptable increase in peak flood levels and flows.
- No development within environmental buffers.
- No adverse impact on the values of the Trinity Inlet Fish Habitat Area and Marine Park.
- No adverse impact upstream or downstream of a subject site should occur.

A Hazard Mapping Assessment, based on the CSIRO, 2000, '*Floodplain Management in Australia: Best Practice Principles and Guidelines – SCARM Report 73*', for the 100 Year ARI existing flood event defined the future fill extents to support development. Developable areas were extended to include areas of Medium and Low hazard subject to meeting the design principles already assumed for flood management. This is shown on *Map 03 Mount Peter ~~Structure Plan Area~~ Master Planned Area – Flood Hazard Mapping*.

For the majority of areas, the extent of inundation is within the adopted waterway buffers; therefore, the impact of filling outside these buffer areas is negligible. ~~Filling was assessed for areas where the existing flood hazard was low to medium to allow for additional developable area within the base model 100 year ARI flood extents.~~ The future fill extents to support development inside the defined case (existing 1/100 year ARI event) are limited to areas identified as being Low or Medium Hazard as specifically identified on *Map 03 Mount Peter Master Planned Area - Flood Hazard Mapping*.

To provide additional supporting information for the planning process, the existing condition flood models were modified to provide predicted peak flows and flood extents for an urbanised ultimate development that includes floodplain filling (without any compensatory cut) and no detention basins. The assessment was based on the final ultimate fill extent and precinct layout. The results indicated that the change in the peak flood levels was minimal and generally contained within the waterway buffers.

Results indicate that the above key principles can be achieved without catchment detention, subject to further detailed analysis in future development applications, with particular consideration of flood storage to compensate for any proposed filling.

Water Quality

The three overriding principles driving the water quality management approach for the Mount Peter MPA are:

- A 'daylight' approach for stormwater conveyance. By using swales to convey flows rather than concrete pipes and channels, the volume of stormwater flows are reduced, and treatment begins at the source. If properly set out and adopted, this approach will likely result in not only cost savings, but also improved water quality and waterway health.
- Upstream flows from undeveloped areas are to be separated from urban stormwater as far as reasonably practicable.
- A combination of best management practices in Water Sensitive Urban Design (WSUD) at various scales is adopted. Stormwater runoff will be treated by a range of treatment devices prior to discharge to the receiving waterways. This approach will implement stormwater treatment measures at three of the four spatial scales; allotment, street, neighbourhood and development. Offline bio-retention basins and wetlands are proposed as stormwater treatment devices at the development-scale. Preliminary estimates indicate that 2% of the catchment area may be necessary to achieve guideline reductions in target stormwater pollutants when using bio-retention systems or wetlands.

The Mount Peter Structure Plan provides for all treatment measures to be in end of line devices, these being predominantly bio-retention systems or wetlands constructed in the waterway envelopes to minimise the impact on the developable footprint. However, where overland flowpaths crossing 3rd party land cannot be established, the extent of the end-of-line treatment system required will be substantially reduced by the requirement for individual development sites to control water quality well before the point of discharge to the major waterways.

Sea Level Rise (Climate Change)

The potential for the anticipated sea level rise within the Mount Peter MPA to affect land within and outside of the proposed 100m buffer to the Declared Fish Habitat Area is to be investigated at the Master Plan stage. This, at a minimum, will require:

- a review of relevant literature (including previous technical studies) and review of adequacy of coastal modelling completed to date;
- incorporation of information pertaining to sea level rise into modelling completed for the Mount Peter MPA;
- consideration of modelling results and determination of whether the recommended 100m buffer to the Declared Fish Habitat Area is sufficient to accommodate landward migration of tidal influence.

5.10 Other Physical Infrastructure

Whilst the location of the following infrastructure may not significantly impact on development of the land use plan for Mount Peter, delivery of these services is relevant to the Structure Plan as a whole and implementation proposals will need to be mindful of the planning objectives and outcomes.

Generally, early identification of service corridors will be essential and will provide a good opportunity to use joint infrastructure services. Co-locating infrastructure has the potential to reduce the need for new infrastructure sites and corridors, thereby reducing severance, visual impacts and the overall cost to the community.

5.10.1 Water Supply, Sewerage and Recycled Water

Water Supply

The *Overall Water Supply Strategy for Cairns Planning Report* (Cairns Regional Council, March 2009) recommends two new future water sources, the Barron River Water Scheme and the Mulgrave River Aquifer. This report has been adopted by Council and it is proposed that Stage 1 will be from the Mulgrave River Aquifer. This will require a future Behana-Mulgrave water treatment plant to be located in the southern end of the Mount Peter MPA to support development.

Cairns Regional Council are implementing measures to reduce per capita demand to defer the timing of these new water supplies. Ultimately, the works to enhance bulk water supply will also benefit areas external to Mount Peter; therefore, the cost of these works will be ultimately be shared with development external to Mount Peter. For the purposes of this report, the costs are based on providing equivalent treatment capacity to Mount Peter based on unit rates. These will need to be refined by Council as part of the ongoing planning and design for bulk water supply.

There is an existing 800mm diameter trunk main that runs along the eastern boundary of the Mount Peter site between Gordonvale and Edmonton that has the capacity to provide a future connection point(s) to supply Mount Peter. The connection point will supply dedicated trunk mains to the proposed local reservoir storage. The potential exists to use the second existing 400mm diameter main to provide a direct connection into the initial stages of development.

Additional local storage capacity is required to service the development. The existing Draper Road reservoir has spare capacity to service the initial stages of development. A new main on Petersen Road and new storage at Coombak Close will service the northern area. There is potential to recommission the existing Coombak Close Reservoir to defer the timing of the future reservoir. Total storage capacity of approximately 47ML (potable and non-potable) will ultimately be required.

High level storage or booster pump station(s) will be required to supply higher elevation areas. Timing will need to be confirmed during master planning as will the staging of internal infrastructure requirements.

The industrial area to the north east with the exception of the parcel fronting Deppeler Road (Lot 3 SP 105994) is proposed to be serviced by existing and proposed water supply infrastructure on Thomson Road and in the Edmonton area. Therefore, planning and the future PIP for this land will be prepared and considered by Cairns Regional Council separately to Mount Peter.

Sewerage (Wastewater)

A sewerage planning study into the existing nearby Edmonton and Gordonvale Wastewater Treatment Plant catchments has been completed by Cairns Regional Council. It is proposed that flow from Mount Peter will initially be directed to both of these existing plants using existing and interim spare capacity as identified in the *Edmonton Gordonvale Sewerage Planning Network Reserve Capacity for Mount Peter development* (Arup, 28 July 2009) and confirmed in the *Edmonton and Gordonvale Sewerage Planning Report* (Arup, February 2010)- ('the Planning Report').

The reports indicate that there is spare capacity at the existing Gordonvale Wastewater Treatment Plant (WWTP) of approximately 1,212 EP in 2011 and 388 EP in 2031 (ultimate), with capacity to expand the plant by a further 2,000EP. The reports indicate that the Edmonton Wastewater Treatment Plant (WWTP) has spare capacity of approximately 1,695 EP in 2008 and 576 EP in 2011 before augmentation is required. The timing of the augmentation of the Edmonton WWTP will depend on actual growth.

Allowing for the industrial land in the north east, the report identifies a future 20,000EP augmentation will be required. Mount Peter is proposed to utilise existing and future spare capacity in the Edmonton WWTP for at least the first 5 years.

Given the scale of the proposed development and need to provide recycled water, a new wastewater/recycled water treatment plant in proximity to the development area is proposed. This assumption is based on conclusions from the *Mount Peter MPA to Edmonton WWTP Sewerage Infrastructure Investigation (Cardno, June 2009)* that identified there is a substantial additional cost in transporting the sewage a further 7km and associated costs to upgrade the Edmonton plant and transfer of recycled water back to Mount Peter. The proposed local treatment is subject to obtaining the necessary regulatory approvals and securing land. A new Mount Peter plant will be required in 5 to 10 years depending on growth rates. The interim transfer to Edmonton WWTP would then be phased out and flows transferred to the new Mount Peter Wastewater and Recycled Water Treatment Plant.

The proposed Mount Peter treatment plant will need to incorporate sufficient on site wet weather storage to prevent emergency wastewater point discharges and is likely to require a provision of land for the irrigation and disposal of effluent over and above that re-used by households, open space and any potential agricultural irrigation opportunities.

The *Planning Report* indicates that there is existing and ultimate spare capacity in the Gordonvale sewerage network pump stations and mains of 1,145 EP. Therefore, it is proposed to discharge in to this network for the first 5 years. This could be made permanent with an augmentation of the WWTP (as noted above). A pump station and rising main are required to transfer flows to the existing pump station.

The *Planning Report* indicates that there will be spare capacity in the Edmonton sewerage network pump stations and rising mains following augmentation planned for 2010/2011. However, the upstream 600mm diameter gravity trunk sewer will require a 450mm diameter augmentation and at this time a scheduled augmentation date has not been confirmed. An interim discharge point for the first 5 years is proposed at the existing pump station at Swallow Road. A pump station and rising main are required to transfer flows to the pump station in this period. These works are dependent on the timing of the augmentation of the parallel gravity trunk sewer currently forecast as required in 2010/2011.

Detailed internal sewerage infrastructure requirements will need to be finalised when the developable area, yields and final surface levels are confirmed during Master Planning. However, the natural contours across the site appear to be generally suitable for a gravity based trunk collection system. The proposed location for key trunk sewer mains is along natural drainage paths and creek lines. It is likely that some localised pump stations will be required. The design requirements for gravity sewers on steep slopes will need to be considered during detailed design.

The industrial area to the north east with the exception of the parcel fronting Deppeler Road (Lot 3 SP 105994) is proposed to be serviced by existing and proposed sewerage infrastructure on Thomson Road and in the Edmonton area. This has predominately already been considered in the *Edmonton and Gordonvale Sewerage Planning Report (Arup, February 2010)*. Therefore, planning and the future PIP for this land will be prepared and considered by Cairns Regional Council separately to Mount Peter.

Recycled Water

For the purposes of infrastructure modelling it is assumed that potable substitution would apply to toilet flushing and outdoor uses, which is equivalent to approximately 55% of household demand. The recycled water infrastructure required in Mount Peter will require a network of pipes, pump stations and storages similar to the proposed water network, albeit at a different size. This will be supplied from the proposed Mount Peter wastewater/recycled water treatment plant.

Recycled water provision to the industrial land to the north east will depend on final end use which is currently unknown. Therefore, it is not possible to forecast and plan the infrastructure requirements. However, a proposed supply of recycled water to the north east has been allowed through the provision of nominal trunk mains to the area that will need to be addressed during Master Planning or through individual infrastructure agreements as re-use opportunities are defined.

5.10.2 Electrical Energy

Ergon Energy has confirmed that whilst there is sufficient energy production to service future growth, there is a need to enhance power distribution; hence, new service corridors will be required in the Southern Growth Corridor. To service the ultimate development of the area Ergon would require 2-3 suitably located 132/22kV Zone Substation Sites and associated 132kV line easements. Initially power could be delivered to Mount Peter via a sub surface 22kV supply. A joint Powerlink-Ergon planning study will be undertaken to determine if a new 132kV line within the study area will be required to service the projected growth. For the purposes of meeting placemaking and tropical design outcomes it is assumed that all trunk supplies will be sub surface.

5.10.3 Alternative Energy Sources

The Mount Peter MPA will be faced with challenges in using reticulated gas due to the vast distances from natural gas supplies and a lack of existing trunk infrastructure.

Given the Government requirement for hot water systems in new developments to be supplied by non electrical energy sources there is a requirement for solar and/or gas at the property or neighbourhood level. It is expected that energy provision will be from solar sources in the initial phases of development.

5.10.4 Telecommunications

Telstra has numerous exchanges in the Cairns Southern Growth Corridor; however, the addition of a point of concentration, most likely an exchange site within or near the project area, would be required should conventional services be delivered.

Opportunities to exploit the Federal Government's roll out of Fibre to the Property will need to be explored further. The civil construction of underground conduits and pits for fibre optics is similar to the current method of installing conventional Telstra services in greenfield development in that a series of ground pits and pipes are laid out around the development to carry fibre to the property. Typically, implementation with an 'open access provider' requires the developer to build the telecommunications network at the same time as civil construction. The telecommunications network is most likely to be designed with the expectation that multiple telecommunication providers will utilise the infrastructure.

5.10.5 Waste Management

A fundamental community need is the efficient management of solid waste, which is essential to maintaining a quality environment. Council has responsibility for collection and disposal of solid waste, via a contractor. Changes to waste management processes must be considered on a regional basis, therefore, this lies outside the scope of the Structure Plan recommendations.

Waste Transfer Stations in the Cairns Southern Growth Corridor are operating at near capacity and an increase in the available space in the region will be required. The Portsmouth Transfer Station will provide for the Mount Peter area until a Mount Peter Transfer station is established.

6. IMPLEMENTATION ISSUES

Issues arising from the Structure Plan process that require further investigation, consultation and action to ensure implementation of the Plan:

Cane Rail

Cairns Regional Council (CRC) to formerly request that the State Government take a lead in implementing a strategy for relocating the Barron River delta to Gordonvale cane rail line. It is recommended that a stakeholder group is formed including State, CRC, Mill owners, cane growers and other relevant community representatives.

Busway alignment

Department of Transport & Main Roads (DTMR) to confirm preliminary alignment of busway integrating cane rail constraints; including land resumption requirements, proposals for managing at grade crossings and potential modifications to the existing cane rail alignment.

Bruce Highway upgrade

Department of Transport & Main Roads (DTMR) to secure funding and programme an upgrade of the Bruce Highway from 2 to 4 lanes (dual carriageway) between Edmonton and Gordonvale.

Wrights Creek-Grays Creek Waterway Corridor

Cairns Regional Council (CRC) to establish a stakeholder working group and undertake a comprehensive corridor study.

Wastewater Treatment Plant (WWTP)

Cairns Regional Council (CRC) to undertake a study to identify a preferred location and infrastructure requirements for the proposed Mount Peter WWTP.

Water Supply Reservoirs

Cairns Regional Council (CRC) to initiate a study to identify sites for future reservoirs and acquire land for reservoirs and access.

Waste Management

Cairns Regional Council (CRC) to consider the potential for a waste transfer site to be located adjacent to the proposed Mount Peter WWTP.

Indigenous People

Cairns Regional Council (CRC) to consider the development of a partnership (commercial) arrangement with the Yidinji People to manage the 'Unnamed Hill' area and the Wrights Creek – Grays Creek corridor, including the area on the western border of the MPA.

CRC to undertake further consultation on the adoption of Yidinji names for some streets and public places; for example Bunda Meringa for the 'unnamed hill'.

Economic Development

Cairns Regional Council (CRC) to develop an economic development strategy for Mount Peter and the Southern Growth Corridor which identifies short to medium-term implementation actions and responsibilities for CRC, the State Government and potential private sector developers (at the master plan stage).

Sport & Recreation

Cairns Regional Council (CRC) to undertake a Sport & Recreation Needs Assessment approximately five (5) years into the development to take account of the emerging demographics and establish an action plan for the development of sport and recreation facilities within Mount Peter.

Community Facilities

Cairns Regional Council (CRC) and the Department of Infrastructure & Planning (DIP) and to work in partnership to convene an Integrated Human Services Planning process which brings together human services state agencies, Cairns Regional Council and key non-government stakeholders to co-ordinate the on-going planning, resourcing and delivery of community facilities and human services.

Cairns Regional Council (CRC) to consider funding options for the engagement of a community development worker from the outset of development within Mount Peter to establish the foundations for community development activity.

7. DEFINITIONS

Active Open Space are predominantly intended for organised sporting groups (exclusive of motorised vehicles, or animals) and their activities and their associated structures.

Uses generally include sporting fields, stadiums, indoor sports centres, cricket pitches, courts and track and field grounds.

Affordable Housing means housing that moderate to low income households can afford to rent or buy at a cost of 30% of household income or less. It includes:

- (a) private purchase;
- (b) rental; and
- (c) community / social housing.

ARI (Average Recurrence Interval) means the average, or expected, value of the periods between exceedances of a given rainfall total accumulated over a given duration.

Community facilities means (but not limited too) community centres, cultural facilities, health and welfare services, education facilities, emergency and justice services, churches and care facilities.

Cultural heritage means a place or object with aesthetic, architectural, historical, scientific, social or technological significance to present, past or future generations.

Declared Fish Habitat Area (FHA) means defined areas that are protected against physical disturbance by the provisions of the *Fisheries Act 1994*.

Developable Area means that part of the ~~Structure Plan Area~~ Master Planned Area determined to be generally unconstrained and suitable for urban development as shown on *Map 05 Mount Peter* ~~Structure Plan Area~~ Master Planned Area Planning Area Designations ~~Development Area~~.

Dwelling yield means the number of dwellings or lots per hectare based on a gross area calculation.

Essential community infrastructure means necessary community services (such as telecommunications, power, sewer and water supply) and desirable community infrastructure (such as bridges, pathways and cycleways) that are required by State and Local Governments and only where infrastructure cannot be feasibly located elsewhere.

Essential habitat means vegetation shown as Essential Habitat on the Certified Regional Ecosystem Map. Vegetation is mapped as Essential Habitat when it has been known to support a species that is Endangered, Vulnerable, Rare or near threatened.

Fibre to the premises (FTTP) means provision of fibre optics communications direct to property without the provision of an exchange hub.

FNQ Regional plan means the *Far North Queensland Regional Plan 2009–2031*, developed in accordance with section 2.5A of the *Integrated Planning Act 1997*.

GFA means Gross Floor Area

Key Resource Area (KRA) means sites of extractive industry resources of State and/or regional significance in Queensland are identified pursuant to SPP 2/07 as Key Resource Areas (KRAs).

Master plan means a plan prepared under Chapter 6 of the CairnsPlan.

Master planned area means an area where a structure plan is prepared setting out the broad environmental, infrastructure and development intent for the area. A master planned area may be identified under schedule 10 of the *Integrated Planning Act 1997*.

Mount Peter ~~Structure Plan Area~~ Master Planned Area means the area identified on Plan 02 Mount Peter ~~Structure Plan Area~~ Master Planned Area Development Area.

Passive Open Space means the use of land for outdoor recreation but excluding all active open space and motorised activities, organised racing (e.g. for cars, motor cycles, horses, dogs), showground, theme park, pony club, and commercial sports ground. Examples include walking, cycling, picnicking, and informal sport activities such as kick about, play, playground structures and equipment (e.g. swings etc).

Planning scheme means a planning instrument made by a local government under division 3.8 of the *Integrated Planning Act 1997*.

Self Containment means the proportion of local employed workforce that works within the identified catchment.

Self-sufficiency (employment) means the proportion of the local employed workforce that could potentially find employment within the identified catchment.

Transit oriented communities (TOC) means mixed-use areas, designed to maximise the efficient use of land through high levels of access to public transport.

Transit Oriented Development (TOD) means mixed use urban development that is specifically designed and planned through the incorporation of higher densities and a mix of uses, particularly the use of retail at street level, to encourage public transport use and differentiate the development from conventional urban sprawl.

World Heritage Area means sites of outstanding universal natural or cultural significance included on the World Heritage List.

APPENDIX A:

Mount Peter Structure Plan Maps (Overlays)

Map No.	Map Name
01	Mount Peter Structure Plan Area <u>Master Planned Area</u> Natural Environment
<u>01A</u>	<u>Mount Peter Structure Plan Area</u> <u>Master Planned Area</u> <u>Threatened Flora & Fauna</u>
02	Mount Peter Structure Plan Area <u>Master Planned Area</u> Existing Land Use
03	Mount Peter Structure Plan Area <u>Master Planned Area</u> Flood Hazard Mapping
04	Mount Peter Structure Plan Area <u>Master Planned Area</u> Elements of Historic and Cultural Significance
05	Mount Peter Structure Plan Area <u>Master Planned Area</u> <u>Planning Area Designations</u> <u>Development Area</u>
06	Mount Peter Structure Plan Area <u>Master Planned Area</u> Placemaking
07	Mount Peter Structure Plan Area <u>Master Planned Area</u> Centres Location
08	Mount Peter Structure Plan Area <u>Master Planned Area</u> Precincts
09	Mount Peter Structure Plan Area <u>Master Planned Area</u> Development Entitlements
10	Mount Peter Structure Plan Area <u>Master Planned Area</u> Transport and Mobility Infrastructure (Road Hierarchy)
11	Mount Peter Structure Plan Area <u>Master Planned Area</u> Transport and Mobility Infrastructure (Walk and Cycle)
12	Mount Peter Structure Plan Area <u>Master Planned Area</u> Transport and Mobility Infrastructure (Public Transport)
13	Mount Peter Structure Plan Area <u>Master Planned Area</u> Sport & Recreation and Open Space Infrastructure
14	Mount Peter Structure Plan Area <u>Master Planned Area</u> Master Plan <u>ing</u> Units
15	Mount Peter Structure Plan Area <u>Master Planned Area</u> Community Facilities Infrastructure

APPENDIX B:

Achievement of the Mount Peter Vision & Outcomes through the Structure Plan



Achievement of Mount Peter Outcomes Statement through the Structure Plan
by Mount Peter Master Planning Group

Integrated & Sustainable Infrastructure <i>Integrated planning and delivery of infrastructure has provided innovative solutions that benefit the community and created new standards in environmental sustainability.</i>			
OUTCOMES	STRATEGIC ACTIVITIES	INDICATORS OF SUCCESS	EXTRACTS FROM AMENDMENTS TO CAIRNSPLAN for MOUNT PETER
<ul style="list-style-type: none"> • Developments incorporate sustainable urban design principles and eco-efficient utilities and services to maximise the use of renewable resources and assist with the reduction of the carbon footprint as the population grows. • The planning and delivery of infrastructure is coordinated and integrated in way that maximises self sufficiency. • Efficient, sustainable and robust water cycle management balances environmental and development needs. Water sensitive urban design and integrated water management (incorporating dual reticulation systems and water recycling) reduce the demand on water and drainage infrastructure. • Infrastructure and facilities are provided to residents in a timely, cost effective and equitable manner at the desired standard of service. 	<ul style="list-style-type: none"> • Investigate and utilise eco-efficient technology and innovations for infrastructure and service provision. • Develop and implement standards for environmentally sustainable infrastructure design and provision including water sensitive urban design. • Ensure infrastructure planning, design and installation has no adverse visual or environmental impact on streetscapes, neighbourhoods and open spaces. • Develop strategies for energy, water and waste minimisation, recycling and re-use. • Establish an infrastructure coordination committee to oversee integrated and coordinated infrastructure planning and delivery. • Assess State Government and Council's financial capability to provide infrastructure in advance. 	<ul style="list-style-type: none"> • High percentage of energy and water within each household generated through recycling and/or renewable sources. • Reduced reliance on potable water particularly at peak demand times. • Waste neutral status is achieved. • Early delivery of Infrastructure and facilities to the desired standards of service. • Utility services and infrastructure are unobtrusive and visually complementary. 	<p>1.3.3 Development Sequence Planning for development in the Edmonton to Gordonvale urban corridor has been undertaken through the preparation of the Mount Peter Structure Plan which provides the land use and infrastructure planning for the future development of this major urban growth corridor. <i>Section 1.3.3 gives more detail about staging to ensure timely and logical delivery of infrastructure.</i></p> <p>2.5.1 Mount Peter Land Use Structure and Key Development Elements (h) infrastructure and facilities that are provided to residents in a timely, cost effective, sustainable and equitable manner at the desired standard of service.</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.10 Other Infrastructure (a) Ensure sustainable energy generation, transmission and distribution is provided and maintained; adopt viable alternative energy sources, where practicable, to service population and employment growth; (c) Ensure solid waste is managed and promoted while optimising regional collection and management processes, to minimise adverse impacts on the environment and the community both locally and regionally.</p> <p>4.5.20 Element 7 P8: Ensures the provision of infrastructure is consistent with the form and function of the various centres. 4.5.20 Element 8 P4: Development promotes affordable living. Chapter 5 defines 'Affordable living' as housing and neighbourhoods that are designed to minimise the cost of living through a range of measures including the following:- (a) provision of appropriate employment, community infrastructure and open space; (b) provision of high quality public transport and bicycle and pedestrian infrastructure networks; and (c) design for water and energy efficiency.</p> <p>4.5.20 Element 10 P1: Development occurs in accordance with a total water cycle management approach. 4.5.20 Element 10 A1.1: Contemporary best practice principles are adopted in the planning, design and construction of water cycle infrastructure (including water supply, recycled water, sewerage, stormwater drainage and water quality treatment). 4.5.20 Element 10 P3: Reuse of treated effluent and grey water is implemented to minimise demands on potable supplies. 4.5.20 Element 10 A3.1: Development achieves 100% beneficial reuse of average dry weather flow of treated water reclaimed from wastewater treatment plants.</p> <p>Chapter 6. Master Planning Requirements: A MPU Master Plan is to specify in further detail the type, scale, location and timing of development in each Master Plan Unit.</p>



Achievement of Mount Peter Outcomes Statement through the Structure Plan
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Unique Natural Environment <i>Development is responsive to the tropical environment, and environmental stewardship is obvious, with solar panels, rainwater tanks and native vegetation a common sight.</i> <i>Healthy waterways and lush green corridors extend from the surrounding mountains and define the urban villages. Good access to parks, open spaces and recreational facilities promote an active lifestyle and connection with the natural environment.</i>			
OUTCOMES	STRATEGIC ACTIVITIES	INDICATORS OF SUCCESS	EXTRACTS FROM AMENDMENTS TO CAIRNSPLAN for MOUNT PETER
<ul style="list-style-type: none"> Waterways and adjacent catchments are managed to maintain and enhance the water quality, in-stream and riparian values and dependent ecosystems, whilst providing nature-based recreation opportunities for residents and visitors. Development has been carefully planned to preserve the scenic landscape and views to the mountain backdrop for the enjoyment and appreciation of residents and visitors. The hillslopes are maintained, with development responsive to and integrated with the natural environment. Environmentally significant areas are protected. Wildlife populations are encouraged to thrive with good connectivity between remnant habitat areas and homeowners adopting wildlife friendly living. Residents and businesses of Mount Peter are environmentally aware, have embraced environmentally sensitive design, minimise waste, and use energy and resources wisely. 	<ul style="list-style-type: none"> Prepare and implement catchment management plans for the major waterways in Mount Peter. Design guidelines ensure development is responsive to and integrated with the natural environment and maintains key view lines. Provide education about, and support for sustainable energy-efficient practices at both the household and wider community levels Plant vegetation in the urban areas, including both public and residential spaces, that is representative of the endemic species of Mount Peter and encourage wildlife friendly living. Consider opportunities for visitation, presentation, community education and interpretation of natural areas 	<ul style="list-style-type: none"> Water quality is maintained or improved. Healthy populations of native fish species in local waterways (such as the Jungle Perch in Wright Creek). Sightlines and views of the mountain backdrop are retained. Healthy populations of native fauna and flora High percentage of Vegetation retention Minimal contrast between the natural and built elements of the landscape. Household requirements for cooling, lighting, water and energy are below the national average. Star rating for green business and commercial developments. 	<p>2.5.1 Mount Peter Land Use Structure and Key Development Elements</p> <ul style="list-style-type: none"> (d) an extensive and interconnected environmental and urban open space system that frames individual urban villages, provides for the protection of significant natural areas and environmental values and accommodates sport and recreation facilities that promote active living and healthy lifestyles; (e) high standards of environmental performance with all development designed to maintain and protect ecological integrity and processes, the physical condition, ecological health and environmental values of natural areas, coastal resources and surface and ground water systems; (f) a diversity of lot sizes and housing types that meet the lifecycle needs of residents and provide opportunities for affordable living, with the highest density of residential development located close to centres and public transport; <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.3 Natural Environment <u>Biodiversity Conservation</u></p> <ul style="list-style-type: none"> (a) Ensure that areas of biodiversity significance are protected, managed and enhanced by: <ul style="list-style-type: none"> locating development outside areas of high ecological significance such as the World Heritage Area identified on Plan 07 Mount Peter Structure Plan Area Natural Environment; designing and operating development to avoid impacts on ecological values, or where avoidance is not possible, minimises impacts and then offsets residual impacts so there is a net gain of the impacted values; ensuring development adjacent to areas of high ecological significance is designed, operated and setback to avoid adverse impacts on the area's ecological values; ensuring development in or adjacent to areas of general ecological significance is located, designed and operated to avoid or, where avoidance is not possible, minimise any adverse impacts on ecological values where possible; ensuring that pest species are appropriately managed. <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.8 Sports and Recreation</p> <ul style="list-style-type: none"> (c) Ensure the community is provided with a range of low impact environmental recreation and educational opportunities and outdoor experiences compatible with the protection of ecological values. <p>4.5.20 Element 3 P1: Development unless for required community infrastructure is not located in areas of remnant vegetation within the Mount Peter Structure Plan Area</p> <p>4.5.20 Element 3 P2: Development provides buffers/setbacks between development and areas of remnant vegetation to protect adjacent properties from wind thrown trees and protect remnant vegetation from weed incursion.</p> <p>4.5.20 Element 3 P3: Development does not adversely affect areas of endangered regrowth or riparian regrowth vegetation.</p> <p>4.5.20 Element 3 P6: Development adopts principles of Water Sensitive Urban Design (WSUD) to minimise impacts on natural waterways.</p> <p>4.5.20 Element 3 P7: Development avoids adverse impacts on areas that provide known and likely habitat resources for significant wildlife species.</p> <p>4.5.20 Element 3 P8: Development provides appropriate buffers to Declared Fish Habitat Areas.</p> <p>4.5.20 Element 3 P9: Development is not located within 100 metres of the World Heritage Area.</p> <p>4.5.20 Element 3 P10: Development avoids adverse impacts on Coastal Management Districts and Erosion Prone Areas.</p> <p>4.5.20 Element 3 P12: Development ensures there is no net loss of public access to coastal waters, and public access is designed and maintained to conserve coastal resources and maintain public safety.</p> <p>4.5.20 Element 3 P13: Development does not occur on slopes greater than 1:6 unless such development is for required community service infrastructure for which an overriding need can be demonstrated.</p> <p>4.5.20 Element 3 P14:Community infrastructure, passive and active open space located within the waterway envelope maintains its physical and environmental integrity. All other development is not appropriate within the waterway envelope.</p> <p>4.5.20 Element 3 P19: Planning for Wrights Creek and Gray Creek recognises the regional significance of the future open space and associated attributes.</p> <p>4.5.20 Element 7 P2: Development recognises and responds to the important placemaking elements comprising:-</p> <ul style="list-style-type: none"> (a) local views and vistas; (b) gateways; (c) parks; and (d) landmark features. <p>4.5.20 Element 10 P4:Water quality within the waterway envelope is enhanced to meet water quality objectives. <i>From the Implementation Plan: Item 2: A "Green Star" Building Code or similar is developed that rewards sustainable development within the tropics.</i></p> <p>Chapter 6. Master Planning Requirements: A Locality or MPU Master Plan is to be accompanied by (where applicable):</p> <ul style="list-style-type: none"> - flood analysis and stormwater management planning - open space planning including sport and recreation - Wrights Creek and Gray Creek management planning



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Strong Vibrant Community <i>Residents enjoy a range of quality services, facilities and community events and feel a strong sense of identity, safety and security.</i> <i>The rich history of Mount Peter is woven into the urban tapestry and is expressed through design, architecture and public art.</i>			
OUTCOMES	STRATEGIC ACTIVITIES	INDICATORS OF SUCCESS	EXTRACTS FROM AMENDMENTS TO CAIRNSPLAN for MOUNT PETER
<ul style="list-style-type: none"> Residents enjoy the benefits of a sustainable, self contained community with a clear sense of identity, character, community cohesiveness and an enviable lifestyle. Integrated provision and delivery of services is achieved. Safety and security is achieved through high quality urban design. Attractive open spaces which are characteristic of the area and accessible to all residents and visitors, link residential areas, activity centres, community facilities and places of employment. A range of quality services and facilities are provided to meet the needs of all residents and the greater Cairns community. Development celebrates, reflects and protects the historically and culturally significant elements of Mount Peter. The area's cultural history and character is reflected for the enjoyment of residents and visitors. Diverse opportunities for passive and active recreation, formal sports, cultural pursuits and community involvement are provided. The lifecycle requirements and disability needs of residents are catered for. 	<ul style="list-style-type: none"> Undertake a needs assessment to determine the appropriate mix of services and facilities to cater to the needs of the broad range of people living in Mount Peter relevant to the stage of life. Identify the role and function of Mount Peter in the provision of facility gaps for the greater Cairns community e.g. sport and recreation, cemetery etc. Develop an approach to achieve integrated service delivery. Design a variety of places for both formal and informal community involvement and interaction, such as sports grounds, community halls, parks and footpaths that lead to the local shop. Provide local, district and regional parks in suitable areas to provide good access for the whole community. Undertake a cultural heritage assessment of Mount Peter addressing both indigenous and historic heritage. Establish social support structures including community, aged and youth centres. 	<ul style="list-style-type: none"> Strong sense of community cohesiveness and satisfaction. A desirable level of open space per resident and meets the stated standard of service. A high proportion of children attend local schools with high retention rates. Large number of residents actively participate in local cultural and community events. A high proportion of residents frequently use local sporting, recreational, community and business facilities and services. Good access and use of a range of facilities and services. Places of cultural heritage significance are identified and protected. 	<p>2.5.1 Mount Peter Land Use Structure and Key Development Elements</p> <p>(a) a land use structure and form of development that is transit oriented and designed to support the use of public and active transport modes over private vehicle use;</p> <p>(g) high standards of tropical design and place making that contribute to the establishment of Mount Peter as an attractive, comfortable place to live with a strong sense of community identity;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.2 Economic Development and Employment</p> <p>(b) Create sustainable, walkable communities offering a diversity of employment and transport choices close to where people live;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.5 Community Facilities</p> <p>(a) Ensure Mount Peter has a range of community facilities that respond to local needs, encourage active community participation and healthy lifestyles and help build the life and identity of the community;</p> <p>(b) Ensure community facilities are established in locations which are convenient and highly accessible to the communities they serve;</p> <p>(c) Ensure community facilities are located in highly visible locations offering opportunities for casual surveillance;</p> <p>(d) Ensure, as far as practicable, community facilities are co-located to achieve efficiency of provision and promote synergies of service and operation;</p> <p>(e) Ensure that community facilities are sequenced in a manner that allows for the early stages of development to have access to community facilities; and</p> <p>(f) Ensure that the provision of community facilities supports the cultural development of Mount Peter.</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.6 Cultural Heritage</p> <p>(a) Implement best practice initiatives for the protection of Indigenous and non-Indigenous cultural heritage sites, objects and areas throughout all phases of development;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.11 Place Making</p> <p>(a) Ensure the structure and layout of Mount Peter responds to local climatic conditions at the district, neighbourhood and site level;</p> <p>(b) Promote the development of memorable spaces through incorporating best practice urban design principles;</p> <p>(d) Ensure public space is integrated into the urban fabric and supportive of the density and needs of the emerging community and the local history (through public art – indigenous and non-indigenous);</p> <p>(e) Encourage the staged approach to achieve sustainable development densities and promote the creation of a strong and sustainable community;</p> <p>(h) Ensure that indigenous and non-indigenous cultural heritage is incorporated into public art, urban design, place/street names and land mark features.</p> <p>4.5.20 Element 5 P1: Mount Peter is provided with a range of community facilities to meet the diverse social needs of the community.</p> <p>4.5.20 Element 6 P1: Development of or within a place of cultural heritage significance identified on <i>Map 04 Mount Peter Structure Plan Area Elements of Historic and Cultural Significance</i> retains and conserves its values.</p> <p>4.5.20 Element 7 P3: Development occurs in accordance with a neighbourhood model and street block layout that reflects the integration of transit oriented development, tropical urbanism and sustainable community design principles.</p> <p>4.5.20 Element 7 P4: Development provides for the establishment of a multi-faceted and layered urban environment that incorporates all of the elements necessary to support community growth, health and wellbeing.</p> <p>4.5.20 Element 7 P5: Community facilities are provided early and in a co-ordinated manner to support the preferred pattern of development and population growth in Mount Peter.</p> <p>4.5.20 Element 7 P6: Community facilities provide high levels of safety and security, particularly at night and on weekends, through the promotion of high levels of activity, casual surveillance and proximity to public transport.</p> <p>4.5.20 Element 8 P1: Housing diversity is provided within the Mount Peter Structure Plan Area that responds to the different stages of the population's life cycle.</p> <p>4.5.20 Element 8 P6: Development within Mount Peter promotes health and wellbeing of its residents.</p> <p>4.5.20 Element 8 P7: Development promotes identity and expression of residents.</p> <p>4.5.20 Element 8 P8: Development promotes connected communities</p> <p>4.5.20 Element 9 P1: Sport and recreation facilities are located to:</p> <p>(a) maximise opportunities for the co-location and sharing of sport and recreation facilities with schools and other community facilities;</p> <p>(b) provide safe and convenient cycle and pedestrian access;</p> <p>(c) provide multi-mode access; and maximise accessibility for mobility impaired people.</p> <p>Chapter 6. Master Planning Requirements: A Locality or MPU Master Plan is to be accompanied by (where applicable):</p> <ul style="list-style-type: none"> - community services planning - cultural heritage planning



Achievement of Mount Peter Outcomes Statement through the Structure Plan
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Innovative Urban Structure and Design <i>Innovative master planning and urban design has delivered defined urban villages with a diversity of lot sizes and housing choice to meet the life cycle needs of residents. Higher density living is conveniently located close to centres and public transport. With its own distinctive centre, it is also closely connected with the vibrant town centres of Gordonvale and Edmonton.</i>			
OUTCOMES	STRATEGIC ACTIVITIES	INDICATORS OF SUCCESS	EXTRACTS FROM AMENDMENTS TO CAIRNSPLAN for MOUNT PETER
<ul style="list-style-type: none"> A distinctive recreational feature embracing the natural waterways provides open space & extensive recreational opportunities. Waterways have been preserved & enhanced, with attractive pedestrian/cycle paths established throughout open space & riparian areas. The Mount Peter town centre is one distinctive element of the "string of pearls", which includes Edmonton, Gordonvale and the Cairns CBD. Establishment of major employment nodes that are efficiently linked by public transport and major transport corridors which are of a high quality design. Integrated land use & transport planning delivers Transit Orientated Development (TOD) outcomes. A number of defined urban villages are created which integrate a range of uses and densities focused around a centre that is well serviced by public transport. Town centres feature a pedestrian focused main street with retail activity forming part of the streetscape. Local centres provide for the day-to-day convenience shopping and service needs of the community. Buildings incorporate sustainable design principles to minimise requirements for cooling, lighting and energy. Development has a minimal impact on the environment and is responsive to the tropical conditions and natural geography. Planning provisions encourage unique and creative designs in dwellings and commercial buildings to avoid repetitious design and features. Residents and visitors feel safe on the well-planned, well-lit streets and open spaces, and actively use these areas for a diversity of recreational and social purposes. 	<ul style="list-style-type: none"> Undertake detailed analysis and master planning for the Mount Peter Town Centre. Work with Queensland Transport and Main Roads to achieve the integrated design of transport corridors and delivery of Transit Orientated Developments. Ensure the right location and sizing of retail, employment and community components within centres. Develop tropical urban design guidelines which incorporate Cairns Style and sustainability outcomes. Incorporate crime prevention measures in built and urban design. Flexible planning scheme provisions encourage the use of innovative and sustainable urban and built design measures. 	<ul style="list-style-type: none"> At any given time, neighbourhoods and urban centres will be alive with activity, as residents and visitors walk, ride and play in streets and open spaces (activity levels). Range of housing type and range of house prices are achieved. A socially and economically vigorous community where people work where they live and play with participation rates and unemployment rates no higher than the Cairns rate. 40% self containment rate achieved. Application of the Cairns Style design principles. Urban and built form is environmentally sound and complementary to the distinctive features of the surrounding environment and tropical climate. 	<p>2.5.1 Mount Peter Land Use Structure and Key Development Elements</p> <ul style="list-style-type: none"> (b) a network of district and mixed use centres that complement existing centres at Edmonton and Gordonvale and that accommodate major employment and other centre functions including retail facilities, community facilities, public transport interchanges, civic and cultural facilities necessary to meet the needs of the Mount Peter urban community and promote high levels of community self-containment; (d) an extensive and interconnected environmental and urban open space system that frames individual urban villages, provides for the protection of significant natural areas and environmental values and accommodates sport and recreation facilities that promote active living and healthy lifestyles; (f) a diversity of lot sizes and housing types that meet the lifecycle needs of residents and provide opportunities for affordable living, with the highest density of residential development located close to centres and public transport; <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.2 Economic Development and Employment</p> <ul style="list-style-type: none"> (b) Create sustainable, walkable communities offering a diversity of employment and transport choices close to where people live; <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.4 Transport and Mobility</p> <ul style="list-style-type: none"> (b) Ensure development is based on principles of walkable neighbourhoods and transit oriented development which promote pedestrian accessibility to a range of destinations thereby reducing the number of trips necessary by private motor vehicle; (c) Ensure that development provides high quality end of trip facilities that promote pedestrian and cycle use; (d) Ensure high frequency public transport forms a major focus in Mount Peter and is provided at the same time as development; (e) Ensure that the ultimate density of development is higher around transit nodes than other areas in Mount Peter; <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.7 Housing</p> <ul style="list-style-type: none"> (a) Ensure housing choice responds to the needs of the community, through the provision of a diverse and affordable housing choice that is responsive to the changing demographic structure of the Mount Peter population; (b) Ensure the integration of housing densities across the various planning precincts is consistent with their land use intent; (c) Ensure that development provides a range of housing forms and styles that can achieve the desired level of self containment; (d) Ensure that adaptable housing is accommodated to meet the needs of the community through its entire life cycle; and (e) Ensure that housing choice promotes the creation of a strong and sustainable community, with equitable access to goods and services. <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.11 Place Making</p> <ul style="list-style-type: none"> (a) Ensure the structure and layout of Mount Peter responds to local climatic conditions at the district, neighbourhood and site level; (g) Identify existing unique visual characteristics that are intrinsic to Mount Peter so that these may be protected, but at the same time recognise that the landscape will change in certain areas to predominantly urban in character; and <p>4.5.20 Element 4 P4: Development creates a safe, attractive and efficient pedestrian/cyclist path network that priorities pedestrian movement over vehicle use and creates an attractive environment, including connectivity to regional, local and district centres, open space networks, employment, schools, recreation, bus stations and stops and other key destinations.</p> <p>4.5.20 Element 4 P5: Development adjacent to pedestrian and cyclist paths:</p> <ul style="list-style-type: none"> (a) provides a high standard of urban design; (b) addresses Crime Prevention Through Environmental Design principles; and (c) meets universal design principles. <p>4.5.20 Element 7 P3: Development occurs in accordance with a neighbourhood model and street block layout that reflects the integration of transit oriented development, tropical urbanism and sustainable community design principles.</p> <p>4.5.20 Element 7 P4: Development provides for the establishment of a multi-faceted and layered urban environment that incorporates all of the elements necessary to support community growth, health and wellbeing.</p> <p>4.5.20 Element 7 P7: District and Mixed Use Centres within Mount Peter are consistent with their intended role and function, urban form</p> <p>4.5.20 Element 7 P8: Ensures the provision of infrastructure is consistent with the form and function of the various centres.</p> <p>4.5.20 Element 7 P9: Centres are to be located along the mass transit alignment to maximise the opportunities for transit oriented development (TOD)</p> <p>4.5.20 Element 7 P10: The Maitland Road District Centre is to be located to optimise community accessibility in the south eastern areas of the Mount Peter Structure Plan Area.</p> <p>4.5.20 Element 7 P14: The Coopers Road District Centre is to be located to optimise community accessibility in the north west areas of the Mount Peter Structure Plan Area.</p> <p>4.5.20 Element 7 P17: Mixed Use Centres provide community focal points and are located along key public transport routes.</p> <p>4.5.20 Element 7 P18: Local Centres provide community focal points additional to District and Mixed Use Centres</p> <p>4.5.20 Element 8 P1: Housing diversity is provided within the Mount Peter Structure Plan Area that responds to the different stages of the population's life cycle.</p> <p>4.5.20 Element 8 P2: Housing is provided in a variety of different forms and sizes whilst meeting the density targets expressed for each precinct.</p> <p>4.5.20 Element 8 P3: Housing density is concentrated around activity centres and key focal points of the community.</p> <p>4.5.20 Element 8 P6: Development promotes identity and expression of residents.</p> <p>4.5.20 Element 8 P7: Development promotes connected communities</p> <p>Chapter 6. Master Planning Requirements: A Locality or MPU Master Plan is to be accompanied by (where applicable):</p> <ul style="list-style-type: none"> - urban design and centres concept planning - visual assessment - housing and affordable living planning - tropical design assessment



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Thriving Economy and Local Employment <i>Mount Peter is a prosperous community which is largely self-sustaining. A diverse employment base has been created by the private and public sectors leveraging off major health, education and technology facilities. With its own distinctive centre, it is also closely connected with the vibrant town centres of Gordonvale and Edmonton.</i>			
OUTCOMES	STRATEGIC ACTIVITIES	INDICATORS OF SUCCESS	EXTRACTS FROM AMENDMENTS TO CAIRNSPLAN for MOUNT PETER
<ul style="list-style-type: none"> The local economy is largely self sustaining and can compete regionally and nationally for business while complementing the existing Cairns economy. The local economy includes a balanced employment profile including professional, service and trade sectors. Key elements of the local economy include: <ul style="list-style-type: none"> A major industrial centre, located close to the railway line and Bruce Highway. Major business park providing office and commercial employment. A Town centre as well as district and local centres. Education, health and technology hubs. Nature based recreational pursuits for viable ecotourism activities. Home based business opportunities. Flexible employment options and work hours are available, and the diverse economy provides real employment outcomes for a variety of age groups. Active promotion of business opportunities is successful in encouraging new business to establish in, and existing businesses to relocate to the corridor. Appropriate support services and facilities are provided for new businesses to ensure the ongoing economic viability of Mount Peter. Provision of infrastructure to support early employment opportunities, stimulating the environment for private sector investment. 	<ul style="list-style-type: none"> Ensure training centres (both vocational and higher education) are co-located with employment opportunities. Provide a range of high quality and flexible learning, training, career and employment opportunities Integrate transit infrastructure with employment centres. Establish a chamber of commerce for Mount Peter and explore potential for greater southern corridor cooperation. Maximise employment self-sufficiency and economic multipliers. Coordinate and establish lead infrastructure to develop employment centres/ and assess the financial capacity of State and Local Government to provide infrastructure early. Promote Mount Peter to major wholesale, retail and service businesses as an attractive and viable commercial location Attract a diverse mix of businesses to Mount Peter, to broaden the region's economy. Work with State and Federal government agencies and private sector to: to investigate the establishment of bio-fuel / green energy Industry to provide targeted business assistance programs that match industry needs, and investigate the potential to establish a business incubator 	<ul style="list-style-type: none"> Access to a range of jobs. Established health services hub / hospital. High proportion of residents are employed within Mount Peter, including a thriving home-based business sector Established business incubator and/or technology park. Viable and functioning centres in an identifiable hierarchy are established. Mix of businesses. Unemployment rates are equal to or lower than the wider Cairns region. The demographic profile reflects a mix of age, cultural background, family, income, education and employment characteristics. Integrated government service delivery outlets are located within the various centres throughout Mount Peter. 	<p>2.5.1 Mount Peter Land Use Structure and Key Development Elements</p> <ul style="list-style-type: none"> (b) a network of district and mixed use centres that complement existing centres at Edmonton and Gordonvale and that accommodate major employment and other centre functions including retail facilities, community facilities, public transport interchanges, civic and cultural facilities necessary to meet the needs of the Mount Peter urban community and promote high levels of community self-containment; (c) a major business/technology park and integrated industry and employment area that provides a significant quantity of jobs for residents of the Mount Peter Structure Plan Area and surrounding communities; <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.2 Economic Development and Employment</p> <ul style="list-style-type: none"> (a) Ensure that the economic development of Mount Peter creates employment, attracts investment and services and enhances the region's environment, lifestyle and community, reflecting a transition away from a reliance on the traditional industries of agriculture and tourism towards economic sectors that capitalise on regional and sub-regional competitive advantages and specialisations as well as new opportunities for growth. These include: <ul style="list-style-type: none"> knowledge-based businesses in sectors including professional business services, health and education; and more knowledge intensive applications to existing industries including export-oriented 'high-tech' manufacturing, scientific and technical services and research and development in primary industries, mining, environmental management and tropical design and living. (b) Create sustainable, walkable communities offering a diversity of employment and transport choices close to where people live; (c) Ensure that Mount Peter will be a regional attractor for employment within the Southern Corridor focusing on manufacturing, service provision and research and development that builds on the FNQ Regional Plan's focus on regional advantages and specialisations; (d) Provide for the continuation of extractive industries, poultry farms and aquaculture on an interim basis and for the appropriate use of separation distances and buffer areas; (e) Provide for the conduct of business and employment from home in a manner that does not adversely affect amenity; and (f) Ensure that new centres within the Mount Peter Structure Plan Area are of a scale, and incorporate functions, that are consistent with the role of that centre in the Cairns City centres hierarchy and occur in an orderly and sequenced manner that does not unreasonably impact upon other existing and planned centres outside of the Structure Plan Area. <p>4.5.20 Desired Developmental Outcomes for Particular Elements: B. Desired Development Outcomes for Particular Precincts</p> <p>B.1 Precinct 1 – Business/Technology Park and Integrated Industry Employment</p> <ul style="list-style-type: none"> (a) The Business/Technology Park and Integrated Industry Employment Precinct will be a regional attractor for employment within the Southern Corridor focusing on high-technology, low-impact manufacturing, service provision and research and development (R&D) that builds on the FNQ Regional Plan's focus on regional and sub-regional advantages and specialisations. This includes low impact industrial uses that require large footprints such as food product manufacturing, metal product manufacturing, wood and paper product manufacturing and mineral product manufacturing. It also includes more general and service industry-type uses including machinery and equipment manufacturing, servicing and/or repairs (including for example agricultural and mining machinery and equipment), wholesale trade activities and construction industry activities (including fabrication and assembly). The precinct will complement the role and function of the Mixed Use/Employment Precinct; (b) The Business/Technology Park and Integrated Industry Employment Precinct will include a number of mixed uses to support employment including local convenience, child care and health clubs. This precinct will also accommodate low impact industrial uses that require large land areas and buildings such as light metal product manufacturing activities, machinery and equipment manufacturing, supply and maintenance/repair (including mining and agricultural machinery), low impact food product manufacturing activities, wholesale trade uses and construction industry activities; (c) Development in the precinct incorporates a high standard of urban design and landscaping that creates attractive tropical buildings, streets and spaces; (d) Development in the precinct avoids conflicts with and protects the amenity of adjacent residential areas; and (e) Development in the precinct meets contemporary best practice standards for sustainability. <p>4.5.20 Element 2 P1: Business and industrial uses are accommodated in Mount Peter through the provision of appropriate land with sufficient diversity in lot sizes, buffers, amenity</p> <p>4.5.20 Element 2 P2: Employment self sufficiency of 75% and a level of employment self containment of 40% is achieved.</p> <p>4.5.20 Element 2 P3: Development provides a mix of retail, higher order commercial, office and service based business and employment in a network of accessible, viable and functioning centres in an identifiable centres hierarchy, recognising that Edmonton is a Sub-regional Centre and Gordonvale is a District Centre.</p> <p>4.5.20 Element 2 P4: Employment areas are located:</p> <ul style="list-style-type: none"> (a) to capitalise on the establishment of the multi-purpose transport corridor and high quality public and private transport links; (b) in areas which can be serviced by cost-effective infrastructure; (c) in areas that are appropriately buffered to minimise risk from incompatible development; and (d) to complement and support the commercial and industrial structure of the Cairns Southern corridor and the wider Cairns Region. <p>4.5.20 Element 2 P 7: Home-based activity and business opportunities maintain residential amenity.</p> <p>4.5.20 Element 7 P3: Development occurs in accordance with a neighbourhood model and street block layout that reflects the integration of transit oriented development, tropical urbanism and sustainable community design principles.</p> <p>Chapter 6. Master Planning Requirements: A Locality or MPU Master Plan is to be accompanied by (where applicable):</p> <ul style="list-style-type: none"> economic, employment and investment planning



Achievement of Mount Peter Outcomes Statement through the Structure Plan
by Mount Peter Master Planning Group

Connected Community <i>Movement within and beyond Mount Peter is convenient and safe with good connection to the town centres and the Cairns CBD. People use the well designed and efficient public transport system which integrates the town centres, urban villages, education and employment hubs. The connected network of walking and cycling paths and open space has also reduced the dependency on car use.</i>			
OUTCOMES	STRATEGIC ACTIVITIES	INDICATORS OF SUCCESS	EXTRACTS FROM AMENDMENTS TO CAIRNSPLAN for MOUNT PETER
<ul style="list-style-type: none"> Major facilities and attractions are co-located to maximise transport efficiencies. Residents have safe and convenient access to employment, services and activities in Mount Peter, enabling a high degree of self containment. Town centre, employment and educational facilities are interconnected by an efficient public transport network. Bikeways and pedestrian paths connect residents to local attractions and services, and provide connections between the communities of Mount Peter. Convenient public transport hubs and frequent stops provide residents of Mount Peter with access to a safe and efficient transport system. (Hifrequency). Public transport facilities cater for all users and provide quality disabled access. 	<ul style="list-style-type: none"> Implement the Cairns Southern Corridor Land Use and Transport Study (CSCLUTS) and the Cairns Integrated Public Transport Study (CIPTS). Ensure the timely, cost effective and equitable planning and provision of state-of-the-art infrastructure. Design the public transport system to reflect the tropical environment and community demographics. Plan roads to accommodate for future growth and expansion of the corridor. Ensure heavy vehicle access along Maitland Road is maintained. Investigate existing easements and rail corridors. 	<ul style="list-style-type: none"> Achieve 20% public transport usage at peak times Pedestrians and cyclists have access to safe and convenient pathways providing good linkages and connectivity The Bruce Highway is upgraded motorway standard. Lower car ownership and reduced car usage. High proportion of residents to regularly use alternative modes of travel Travel time between home/ work, home/ recreation, home/shop are minimised. Congestion of roads minimised. Connectivity is increased through minimal use of cul-de-sacs. The Bruce Highway and Mount Peter road are the major transport corridors. Full coverage for high speed Information Communication Technology (ICT). 	<p>2.5.1 Mount Peter Land Use Structure and Key Development Elements</p> <p>(b) a land use structure and form of development that is transit oriented and designed to support the use of public and active transport modes over private vehicle use;</p> <p>(d) an extensive and interconnected environmental and urban open space system that frames individual urban villages, provides for the protection of significant natural areas and environmental values and accommodates sport and recreation facilities that promote active living and healthy lifestyles;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.2 Economic Development and Employment Create sustainable, walkable communities offering a diversity of employment and transport choices close to where people live;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.4 Transport and Mobility</p> <p>(b) Ensure development is based on principles of walkable neighbourhoods and transit oriented development which promote pedestrian accessibility to a range of destinations thereby reducing the number of trips necessary by private motor vehicle;</p> <p>(c) Ensure that development provides high quality end of trip facilities that promote pedestrian and cycle use;</p> <p>(d) Ensure high frequency public transport forms a major focus in Mount Peter and is provided at the same time as development;</p> <p>(e) Ensure that the ultimate density of development is higher around transit nodes than other areas in Mount Peter;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.5 Community Facilities</p> <p>(d) Ensure, as far as practicable, community facilities are co-located to achieve efficiency of provision and promote synergies of service and operation;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.8 Sports and Recreation</p> <p>(f) Provide accessible, functional and appealing open space areas and facilities which promote active living and healthy lifestyles through opportunities for recreation, sport, walking, cycling and play;</p> <p>(g) Ensure an extensive and integrated network of sport and recreation open space is provided throughout Mount Peter;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.10 Other Infrastructure</p> <p>(b) Ensure affordable, reliable and robust high speed telecommunications are provided to ensure access to markets, information and services;</p> <p>4.5.20 Desired Developmental Outcomes for Particular Elements: A.11</p> <p>(c) Ensure the spatial allocations of land uses are supportive of the transit focus of the Structure Plan and promotes walkable communities;</p> <p>4.5.20 Element 4 P1: A road network hierarchy is provided to ensure the safe and efficient movement of all users.</p> <p>4.5.20 Element 4 P2: Vehicle access to the Bruce Highway is designed to ensure the efficiency and safety of a State Controlled Road.</p> <p>4.5.20 Element 4 P3: The road network is designed to provide a high level of connectivity, permeability and circulation for local vehicles, public transport, pedestrians and cyclists.</p> <p>4.5.20 Element 4 P4: Development creates a safe, attractive and efficient pedestrian/cyclist path network that priorities pedestrian movement over vehicle use and creates an attractive environment, including connectivity to regional, local and district centres, open space networks, employment, schools, recreation, bus stations and stops and other key destinations.</p> <p>4.5.20 Element 4 P5: Development adjacent to pedestrian and cyclist paths:</p> <p>(a) provides a high standard of urban design;</p> <p>(d) addresses Crime Prevention Through Environmental Design principles; and</p> <p>(e) meets universal design principles.</p> <p>4.5.20 Element 4 P8: Development for the following uses provide high quality end of trip facilities for cyclists:</p> <p>(a) Commercial buildings;</p> <p>(b) Multi-unit residential;</p> <p>(c) Retail centres;</p> <p>(d) Community facilities;</p> <p>(e) Healthcare; or</p> <p>(f) Education.</p> <p>4.5.20 Element 4 P9: Pedestrians and cyclists are accommodated safely at all intersections including signalised crossings. Roundabout intersections are to be avoided at intersections with high order roads wherever possible to improve safety for pedestrians and cyclists.</p> <p>4.5.20 Element 4 P10: The road network layout and design generally provides the shortest route for pedestrians and cyclists to encourage walking and cycling to daily activities and assist in reducing local vehicle trips.</p> <p>4.5.20 Element 4 P11: High density development is concentrated in areas along the proposed busway and with a relatively flat topography, to maximise the opportunities for pedestrians and cyclists to utilise the areas.</p> <p>4.5.20 Element 4 P12: Development promotes the use and efficiency of public transport.</p> <p>4.5.20 Element 7 P9: Centres are to be located along the mass transit alignment to maximise the opportunities for transit oriented development (TOD)</p> <p>4.5.20 Element 11. P1: Development is serviced with fibre to the premises (FTTP) telecommunication infrastructure.</p> <p>Chapter 6. Master Planning Requirements: A Locality or MPU Master Plan is to be accompanied by (where applicable):</p> <ul style="list-style-type: none"> - traffic and transport planning - community services planning

APPENDIX C

Land Use and Density Model

Mount Peter- 26 Feb 2010

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations (10%)	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	259							
Mixed Use Centre	11.6	2.9	2.6	30	2.3	78	180	
Employment								
Business / Tech Park	116.2							
Mixed Use Employment	65.4							
Transport Based Industry	33.2							
Linear Park	8							
	<u>226.4</u>							
						78		
						<u>180</u>		

Percentage of residential use within centres	
1	25%
2	30%
3	na
4	70%
5	70%
6	70%
7	30%
8	na

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	289.8							
District Centre - Core	28.3	6.29	6	70	2.3	396	911	
District Centre - Fringe	76.4		69	30	2.3	2063	4744	
Residential / Other	165.1	148.1	133	15	2.3	1999	4599	
	<u>269.8</u>							
Employment	19.81							
Open Space								
District Sports Park	10							
Town Park (2ha) + Town Square (0.2ha)	2.2							
Local / Linear Parks 2ha/1000	20							
Community Facilities								
Primary School (located 100% in Residential/ Other)	7							
		230.79				4458		
						<u>10254</u>		

Percentage of employment use within centres	
1	75%
2	70%
3	na
4	30%
5	30%
6	30%
7	70%
8	na

17.5

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	130.2							
Residential / Other	130.2	106.2	96	15	2.3	1434	3298	
Employment								
Open Space								
District Sports Park	10							
Local Parks 2ha/1000	14							
		112.7				1434		
						<u>3298</u>		

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	97.4							
Mixed Use Centre	35.7	13.0	12	30	2.3	351	807	
Residential / Other	68.2	54.7	49	15	2.3	738	1698	
	<u>103.9</u>							
Employment	10.71							
Community Facilities								
Secondary School (located 100% in Mixed Use Centre)	12							
Primary School (located 100% in Residential/ Other)	7							
Open Space								
Local linear Parks 2ha/1000	6.5							
		67.69				1089		
						<u>2505</u>		

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	187.2							
Mixed Use Centre	34.3	24.01	22	30	2.3	648	1491	
Residential / Other	152.9	99	89	15	2.3	1337	3074	
	<u>187.2</u>							
Employment	10.29							
Open Space								
District Sports Park	10							
Metropolitan Sporting Precinct	25							
Local /linear Parks 2ha/1000	5.5							
Community Facilities								
Primary School	7							
Cemetery (1500m2/1000) (located 100% in residential/other)	6.4							
		123.01				1985		
						<u>4565</u>		

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	151.8							
Mixed Use Centre	38.8	27.16	24	30	2.3	733	1687	
Residential / Other	108.5	108.5	98	15	2.3	1465	3369	
	<u>147.3</u>							
Employment	11.64							
Open Space								
Local / linear Parks 2ha/1000	4.5							
		135.66				2198		
						<u>5056</u>		

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	316.5							
District Centre - Core	50.2	12.86	12	70	2.3	810	1863	
District Centre - Fringe	158.2	152.2	137	30	2.3	4109	9452	
Residential / Other	108.1	54.1	49	15	2.3	730	1680	
	<u>316.5</u>							
Employment	35.14							
Open Space								
District Sports Park	10							
Town Park (2ha) + Town Square (0.2ha)	2.2							
Local Parks 2ha/1000	30							
Community Facilities								
Secondary School (located 50% in District Centre Fringe)	12							
Primary School (located 100% in Residential/ Other)	14							
		219.16				5650		
						<u>12995</u>		

Land Use	Area/ ha	Residential Component	Residual after Urban Storm water considerations	Density Applied	Typical EP	Dwellings	Population	Percentage of Population per MPU
Total Area	150							
Residential / Other	150	119	107	15	2.3	1607	3695	
Employment								
Open Space								
Metropolitan Sporting Precinct	20							
Local Parks 2ha/1000	4							
Community Facilities								
Primary School (located 100% in Residential/ Other)	7							
		119				1607		
						<u>3695</u>		

Average persons per household attached	2.3
Average persons per household detached	2.3

Total residential development area	979	Total	18499
Total developable Area	1582		42547
Total Open Space	174		
Population based on 2.3 EP for approximately 50% detached of population and 2.1 for attached		0	
Suggested Range		40000 - 45000	
Average density - dwellings/ total area		21	

APPENDIX D

Schedule of Consultation Events

Mount Peter Structure Plan Consultation

Record of Events, Workshops & Meetings

Date	Milestone	Event	Stakeholder Group	Intent	Message / Learning / Outcome
Aug 2008	Milestone 2 Constraints and Issues Analysis	Community and landowner reference group meeting	<ul style="list-style-type: none"> Reference group members 	<ul style="list-style-type: none"> Inform Consult 	<ul style="list-style-type: none"> Introduction of team Outline of proposed community and stakeholder engagement process Base data collection Identification of local issues
Aug 2008	Milestone 2 Constraints and Issues Analysis	Government Agency workshop – principles, assumptions, standards	<ul style="list-style-type: none"> State Government Agencies Cairns Regional Council 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Advice from agencies regarding any plans, projects or other priorities that may impact on structure planning for Mt Peter Identification of key principles, assumptions, standards for each major discipline area Creation of building blocks for design process
Aug 2008	Milestone 2 Constraints and Issues Analysis	CAIRNS REGIONAL COUNCIL officers workshop	<ul style="list-style-type: none"> Cairns Regional Council Officers 	<ul style="list-style-type: none"> Inform Consult 	<ul style="list-style-type: none"> Opportunity to explain the structure planning process Advice from officers regarding key issues, relevant plans, policies etc
Sep 2008	Milestone 2 Constraints and Issues Analysis	Vision testing focus groups	<ul style="list-style-type: none"> Sample of local community members 	<ul style="list-style-type: none"> Inform Consult 	<ul style="list-style-type: none"> Understanding of community values and aspirations Community feedback on the vision Suggestions on how the vision could be improved
Oct 2008	Milestone 2 Constraints and Issues Analysis	Taskforce meeting/work session	<ul style="list-style-type: none"> MPMPT 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Project update Feedback from consultation process
Oct 2008	Milestone 2 Constraints and Issues Analysis	Family Fun Day	<ul style="list-style-type: none"> General community 	<ul style="list-style-type: none"> Inform 	<ul style="list-style-type: none"> Awareness raising (display booth, and one-on-one discussions with interested community members) Invitations to the Pre-EBD workshop #1: kick off workshop

Date	Milestone	Event	Stakeholder Group	Intent	Message / Learning / Outcome
Oct 2008	Milestone 2 Constraints and Issues Analysis	Outreach – Gordonvale (Gordonvale town centre - IGA and various shops)	<ul style="list-style-type: none"> • General community 	<ul style="list-style-type: none"> • Inform 	<ul style="list-style-type: none"> • Awareness raising (display booth, and one-on-one discussions with interested community members) • Invitations to the Pre-EBD workshop #1: kick off workshop • Verification of newsletter delivery • Able to establish contacts with local businesses in the Gordonvale area for future promotion • Contact with community organisations including Living Waters and Guide Dogs Australia
Oct 2008	Milestone 2 Constraints and Issues Analysis	Pre-EBD workshop #1: Kick off workshop (community and landowners)	<ul style="list-style-type: none"> • General community (including community organisations, all landowners, taskforce and reference group members) 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Explanation of process (including parameters) • Identification of local issues, base data collection • Testing of the vision • Identification of favoured characteristics of current neighbourhood, least favoured etc. • Gaps analysis (e.g. transport, community facilities, open space, urban form, activity centres etc)
Oct 2008	Milestone 2 Constraints and Issues Analysis	Youth Activity (Bentley Park College)	<ul style="list-style-type: none"> • Bentley Park College students (student leaders years 3-12) 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Involvement of children and young people in the process • Identification of youth to attend and assist with Pre-EBD Workshop #2
Oct 2008	Milestone 2 Constraints and Issues Analysis	Taskforce meeting/work session	<ul style="list-style-type: none"> • MPMPT 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Project update • Feedback from consultation process
Aug 2008- Nov 2008	Milestone 2 Constraints and Issues Analysis	Key stakeholder interviews	<ul style="list-style-type: none"> • Key stakeholders identified in consultation with Council – focus on those not otherwise involved in process 	<ul style="list-style-type: none"> • Inform • Consult 	<ul style="list-style-type: none"> • Introduce process, team members, community and stakeholder engagement strategy • Base data collection • Identification of local issues

Date	Milestone	Event	Stakeholder Group	Intent	Message / Learning / Outcome
Nov 2008	Milestone 2 Constraints and Issues Analysis	Community and landowner reference group	<ul style="list-style-type: none"> Reference group members 	<ul style="list-style-type: none"> Inform Consult 	<ul style="list-style-type: none"> Project update Discussion of information gathered and issues identified at Pre-EBD workshop
Nov 2008	Milestone 2 Constraints and Issues Analysis	Pre-EBD Workshop #2: Development models/concepts	<ul style="list-style-type: none"> General community (including community organisations, all landowners, taskforce and reference groups) 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Overview of broad development models – low, medium and higher density options Discussion of strengths and weaknesses of each
Nov 2008	Milestone 2 Constraints and Issues Analysis	Assumptions workshop	<ul style="list-style-type: none"> CAIRNS REGIONAL COUNCIL MPMPT State agencies 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Review of draft assumptions document and discussion of key issues
Nov 2008	Milestone 2 Constraints and Issues Analysis	DIP, CAIRNS REGIONAL COUNCIL & Taskforce workshop – models/concepts	<ul style="list-style-type: none"> State Government agencies CAIRNS REGIONAL COUNCIL reps MPMPT 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Refinement/discussion of principles, assumptions, standards Introduction, and discussion of, development models/concepts
Dec 2008	Milestone 2 Constraints and Issues Analysis	Taskforce meeting/work session	<ul style="list-style-type: none"> MPMPT 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Project update Feedback from consultation process Discussion of principles, assumptions, standards Discussion of development models/concepts
Jan 2009	Milestone 3 Enquiry by Design	Taskforce meeting/work session	<ul style="list-style-type: none"> MPMPT 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Project update Feedback from consultation process Discussion of principles, assumptions, standards Planning for the EBD

Date	Milestone	Event	Stakeholder Group	Intent	Message / Learning / Outcome
Feb 2009	Milestone 3 Enquiry by Design	EBD	<ul style="list-style-type: none"> • MPMPT • reference group members • general community and all landowners 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Utilisation of a series of collaborative and facilitated work sessions to produce a draft preferred structure plan option. • Sessions addressed key areas including: key constraints and opportunities; strategic land use; mobility and access; centres; open space; community facilities; environment; economic development • Draft structure plan published to the project website and promoted through a community newsletter
Mar 2009	Milestone 4 Draft Structure Plan	Draft Structure Plan workshop	<ul style="list-style-type: none"> • Local government and State agencies 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Review of draft Structure Plan and clarification of infrastructure requirements and responsibilities • Identification of any outstanding issues that require further discussion/resolution
Mar-Sep 2009	Milestone 4 Draft Structure Plan	Communication with key stakeholders for Draft Master Plan (email and telephone)	<ul style="list-style-type: none"> • Stakeholders • Landowners 	<ul style="list-style-type: none"> • Review and comment on draft plan 	<ul style="list-style-type: none"> • Clarify information from the EBD • Address questions from landowners and stakeholders
May 2009	Milestone 4 Draft Structure Plan	Indigenous Consultation	<ul style="list-style-type: none"> • Traditional Owners 	<ul style="list-style-type: none"> • Inform • Consult 	<ul style="list-style-type: none"> • Project Update • Review and comment on draft framework plan – post EBD
Aug 2009	Milestone 5 Complete Draft Structure Plan and other outputs	Workshop sessions with government agencies	<ul style="list-style-type: none"> • Local government and State agencies 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Project update • Review and comment on draft plan

Date	Milestone	Event	Stakeholder Group	Intent	Message / Learning / Outcome
Aug 2009	Milestone 5 Complete Draft Structure Plan and other outputs	Community and landowner reference group meeting	<ul style="list-style-type: none"> Reference group members 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Project update Review and comment on draft plan
Mar 2010	Milestone 5 Complete Draft Structure Plan and other outputs	Workshop sessions with government agencies	<ul style="list-style-type: none"> Local government and State agencies 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Project update and review Preparation for Community Information Session
Mar 2010	Milestone 5 Complete Draft Structure Plan and other outputs	Community and landowner reference group meeting	<ul style="list-style-type: none"> Community and Landowner Reference Group DTMR 	<ul style="list-style-type: none"> Inform Consult Participate 	<ul style="list-style-type: none"> Project update and review Preparation for Community Information Session
Mar 2010	Milestone 5 Complete Draft Structure Plan and other outputs	Indigenous meeting	<ul style="list-style-type: none"> Yidinji Peoples representatives 	<ul style="list-style-type: none"> Inform Consult 	<ul style="list-style-type: none"> Project update Review and comment on draft plan
April 2010	Milestone 6 Complete integration of draft Structure Plan with Cairns Plan, PIP and ICS	Councillor briefing	<ul style="list-style-type: none"> CRC Councillors DTMR 	<ul style="list-style-type: none"> Inform Consult 	<ul style="list-style-type: none"> Project update Review and comment on draft plan

Date	Milestone	Event	Stakeholder Group	Intent	Message / Learning / Outcome
April 2010	Milestone 6 Complete integration of draft Structure Plan with Cairns Plan	Taskforce workshop	<ul style="list-style-type: none"> • MPMPT • DIP • DTMR 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Project update • Review and comment on draft documentation
May 2010	Milestone 6 Complete integration of draft Structure Plan with Cairns Plan	Community pin-up event #3	<ul style="list-style-type: none"> • General community (including community organisations, landowners, taskforce and reference groups) 	<ul style="list-style-type: none"> • Inform • Consult • Participate 	<ul style="list-style-type: none"> • Overview of Structure Plan documentation • Responses to individual and/or group queries