



City of Ipswich Transport Plan



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**Moving
Ipswich
Forward**



FAST FACTS

Ipswich's population has grown to 190,000 and is expected to more than double over the next few decades. iGO is Ipswich City Council's plan for a sustainable transport future.

iGO outlines Council's aspirations to advance Ipswich's transport system and guide future investment decision making.

Transport Issues and Challenges

The future of Ipswich is bright with many opportunities for economic growth and community development. However, the city's transport future will also be different to the past, particularly in regards to the rate of urban growth and technological advances, and this presents many challenges and potential drivers for change.

Issues affecting a sustainable transport future for Ipswich and the key drivers for change include:

1. *High Car Use*
2. *Population Growth*
3. *Low Density Suburban Form*
4. *Uncompetitive Public Transport System*
5. *Parking*
6. *Freight Movements*
7. *Physical Inactivity*
8. *Constrained Fiscal Environment*
9. *Fuel and Climate Change*
10. *Limited Space*



Key Outcomes

Facilitating travel mode choices

Reducing Ipswich resident's dependency on the car by facilitating competitive, attractive and sustainable travel mode choices through the provision of quality transport infrastructure and incentives/disincentives.

Transport and land use integration

Fostering the development of strong, compact and connected mixed use activity centres and complete communities.

Culture Shift

Clever new thinking and strong leadership to make sustainable transport decisions. This includes new 'non-traditional' attitudes such as:

- Promoting travel behaviour change for certain trips
- Taking a demand management approach to car use, parking, road network performance and traffic congestion (not demand satisfaction)
- Balancing the needs of all users in the design and management of roads
- The development and uptake of new transport related technology
- Influencing institutional frameworks (i.e. employee core work hours and locations)
- Using innovation in regards to the cost, affordability, funding and financing of new infrastructure

Key Messages

Proper Investment and clever new thinking

- Suite of local cost initiatives (infrastructure and community programs) and major infrastructure investments
- Travel behaviour change to more sustainable transport modes
- Embrace new transport related technologies

Cars will continue to play an essential role

- But we cannot afford to build our way out of congestion

Safe, reliable and resilient road network

- But not necessarily efficient during times of peak demand. Some congestion during peak times will need to be accepted

Make public transport more competitive with the car (e.g. cost, time, convenience, security)

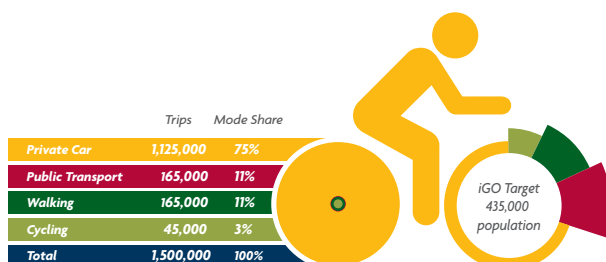
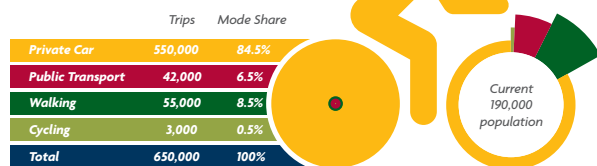
- With a focus on white collar commuter and education trips

Land Use/Transport Integration

- '10 minute neighbourhood'
- '20 minute city'



Daily Trips



"We've been building cities as if the most important element is the car. We should be building like the most important element is the people."

Brent Toderian

Former chief planner, Vancouver, Canada



Key Actions

Land Use

Promote and support the following land use / transport integration outcomes:

- “Complete Communities” urban model in greenfield areas;
- Compact, mixed use development within 400-800m of public transport nodes and strategic public transport corridors;
- Continued application of the SEQ Regional Plan’s urban growth boundary; and
- Preserve land required for future transport corridors.

Public Transport

- Extend the railway from Springfield Central to Redbank Plains.
- Establish high frequency, limited stop, bus services between:
 - Ipswich Central and Brassall, Yamanto, Deebing Heights and Ripley; and
 - Springfield Central and Redbank Plains, Augustine Heights and Bellbird Park.
- Establish commuter bus services between Karalee/Chuwar/Karana Downs and Flinders View/Raceview and stations along the Ipswich - Brisbane Railway Line.

Active Transport

- Develop and implement a detailed *Active Transport Action Plan*.
- Plan and implement commuter bikeways between:
 - Ipswich City Centre and Brassall, Yamanto, Deebing Heights, Ripley and RAAF Amberley; and
 - Springfield Town Centre and Camira, Carole Park, Redbank Plains, Augustine Heights and Bellbird Park.
- Expansion of the *Healthy Active Schools Program*.

Travel Demand Management

- Investment in infrastructure and community programs that will attract school trips:
 - <3km to active transport modes; and
 - >3km to buses and car pooling programs.
- Engaging with major employment generators to develop Sustainable Workplace Travel Plans.
- Supporting, undertaking and/or sponsoring campaigns and events that promote road safety and sustainable transport modes.

Roads

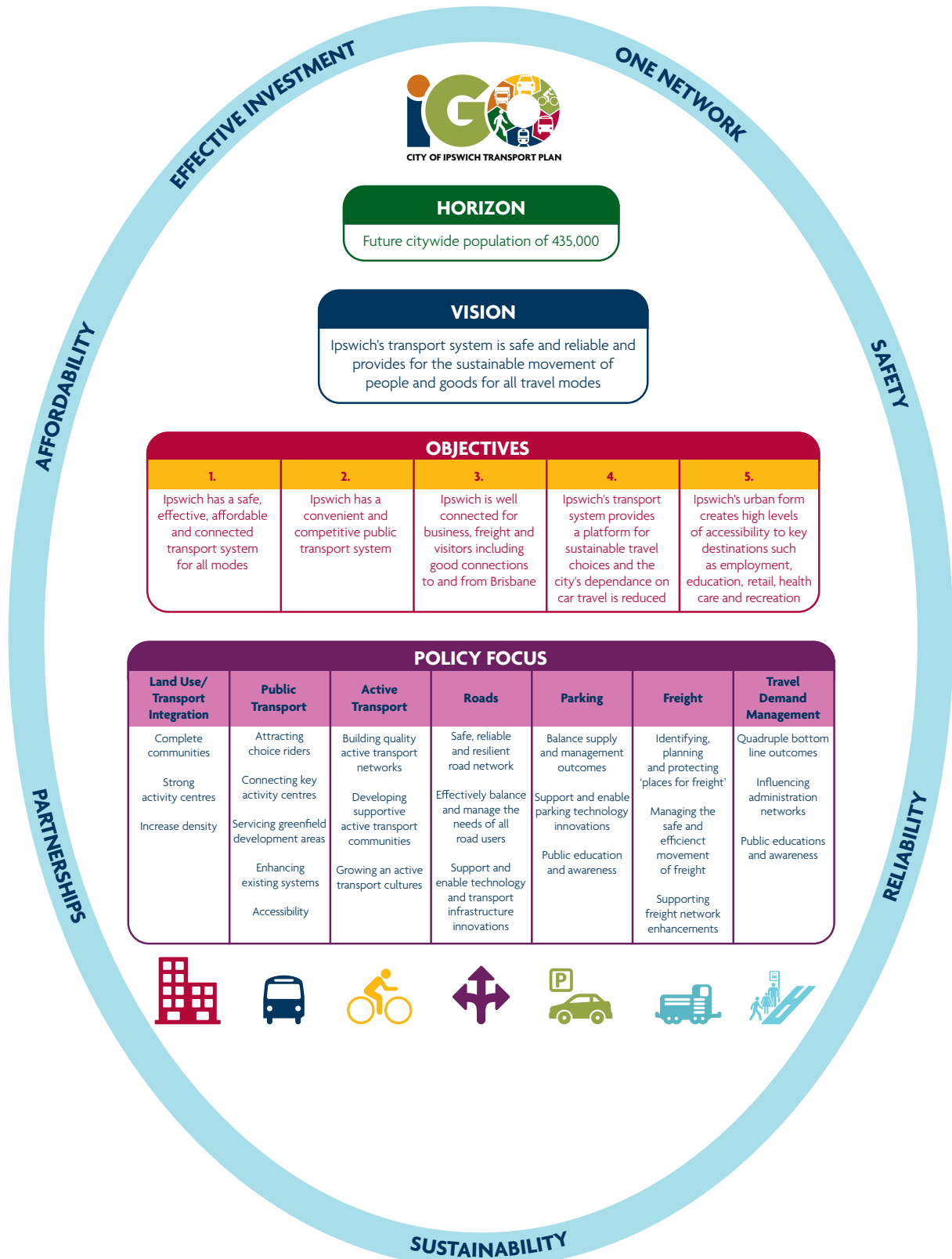
- Implement a program of road network development projects. In the short term this includes:
 - Norman Street Bridge business case to secure funding for its construction;
 - Gordon Street - Marsden Parade Link (Ipswich Central);
 - Brisbane Street - Old Toowoomba Rd Link (West Ipswich to One Mile);
 - Redbank Plains Road (Redbank Plains); and
 - Springfield-Greenbank Arterial (Springfield Central).
- Develop and implement detailed strategies and action plans relating to:
 - Road Safety;
 - Traffic Calming Schemes; and
 - Direction Signs and Route Markers.
- Support and enable technological advances in the delivery and management of road transport (including construction, vehicle and driver innovations).
- Investigate, trial and implement initiatives to better use existing road assets including:
 - ‘Sweating’ existing traffic signals through optimising phasing;
 - Allowing left turns on a red traffic signal;
 - Develop and implement detailed Area Master Plans for key activity centres based on the ‘SmartRoads’ approach to road management.

Freight

- Continue the planning and development of the Inland Rail Project/Southern Rail Freight Corridor.
- Continue to identify, plan for and protect future and existing ‘places for freight’.
- Promote and support the use of Performance Based Solutions (PBS) heavy vehicles

Parking

- Continue to implement and revise the Ipswich Parking Strategy and Ipswich City Centre Commuter Parking Action Plan including:
 - Parking prioritisation hierarchy;
 - Parking Management Plans (for various precincts in the Ipswich City Centre); and
 - Parking Pricing Strategy
- Revise the parking rates in the Ipswich Planning Scheme to promote sustainable travel behaviour.
- Enabling new parking related technologies.



HORIZON
Future citywide population of 435,000

VISION
Ipswich's transport system is safe and reliable and provides for the sustainable movement of people and goods for all travel modes

OBJECTIVES				
1.	2.	3.	4.	5.
Ipswich has a safe, effective, affordable and connected transport system for all modes	Ipswich has a convenient and competitive public transport system	Ipswich is well connected for business, freight and visitors including good connections to and from Brisbane	Ipswich's transport system provides a platform for sustainable travel choices and the city's dependence on car travel is reduced	Ipswich's urban form creates high levels of accessibility to key destinations such as employment, education, retail, health care and recreation

POLICY FOCUS						
Land Use/ Transport Integration	Public Transport	Active Transport	Roads	Parking	Freight	Travel Demand Management
Complete communities	Attracting choice riders	Building quality active transport networks	Safe, reliable and resilient road network	Balance supply and management outcomes	Identifying, planning and protecting 'places for freight'	Quadruple bottom line outcomes
Strong activity centres	Connecting key activity centres	Developing supportive active transport communities	Effectively balance and manage the needs of all road users	Support and enable parking technology innovations	Managing the safe and efficient movement of freight	Influencing administration networks
Increase density	Servicing greenfield development areas	Growing an active transport cultures	Support and enable technology and transport infrastructure innovations	Public education and awareness	Supporting freight network enhancements	Public educations and awareness
	Enhancing existing systems					
	Accessibility					





EXECUTIVE SUMMARY

Transport is a fundamental component of our everyday lives. If cities are to function effectively and be productive, sustainable and attractive places to live, work, recreate and visit then viable travel choices need to be provided.

Introduction

Background

The *City of Ipswich Transport Plan* (branded as 'iGO') is Ipswich City Council's masterplan for Ipswich's transport future. It outlines Council's aspirations to advance the city's transport system to accommodate a future population of 435,000 people, a target set by the Queensland Government in the South East Queensland Regional Plan.

For this amount of people, the number of trips made per day in Ipswich is projected to increase from the current 650,000 to approximately 1.5 million. This presents both opportunities and challenges for governments and the community moving forward.

Whilst the car will continue to play an important role in the way people travel, building more and more road space just for cars to alleviate traffic congestion during peak hours is not a sustainable or affordable outcome and will simply lead to more car use and traffic congestion.

Therefore, for Ipswich to progress in a sustainable, liveable and prosperous way, there will need to be a mix of proper investment with clever new thinking. This includes:

- Shifts to more sustainable travel modes for particular trips;
- Making better use of existing assets;
- Reducing trip lengths through good land use outcomes;
- Spreading of travel demand to outside peak hours;
- Embracing technology and partnerships; and
- Fostering new attitudes and awareness for making sustainable transport decisions.

Context

The *Advance Ipswich Plan* provides Council's overarching vision for the city's future. A key action of the Advance Ipswich Plan is to develop and implement an integrated transport plan that provides a platform for enabling sustainable travel choices.

iGO also takes the Queensland Government's regional transport plan (called *Connecting SEQ 2031*) to the city level.

Need

Ipswich's population is forecast to more than double over the coming decades. A long term integrated transport plan for Ipswich is required to provide guidance on future policy and investment decisions to cater for increases in travel demand as a result of this population growth.

Horizon

Ipswich's population has grown to 190,000. The Queensland Government has forecast a population for Ipswich of 435,000 people by 2031. Given the ambiguity on reaching this population by 2031, the iGO horizon is the 435,000 population target rather than a timeframe.

Previous Work

In the past, the Queensland Government and Council have undertaken planning for various elements of the transport system either on an individual mode, area or corridor basis. iGO is Ipswich's first ever integrated transport plan.

Scope

iGO is a citywide, long term (15+ years) and high level aspirational document that provides the overarching direction and guidance on how to overcome transport issues and challenges and achieve the identified transport vision, objectives and targets for Ipswich.

It includes the elements outlined in Figure E1 below.

Figure E1: iGO Elements



Issues

Issues affecting a sustainable transport future for Ipswich and the key drivers for change include:

1. *High Car Use*
2. *Population Growth*
3. *Low Density Suburban Form*
4. *Uncompetitive Public Transport System*
5. *Parking*
6. *Freight Movements*
7. *Physical Inactivity*
8. *Constrained Fiscal Environment*
9. *Fuel and Climate Change*
10. *Limited Space*

Assumptions

It is largely unknown how transport will operate in Ipswich in the longer term so some assumptions were made to develop iGO. These were:

- The cost of fuel will continue to be volatile;
- There is a need to provide for transport requirements of those residents who do not have access to a car;
- iGO should give effect to the *Advance Ipswich Plan*; and
- Providing active and public transport options will contribute to a sustainable and healthy city.



Aspirations

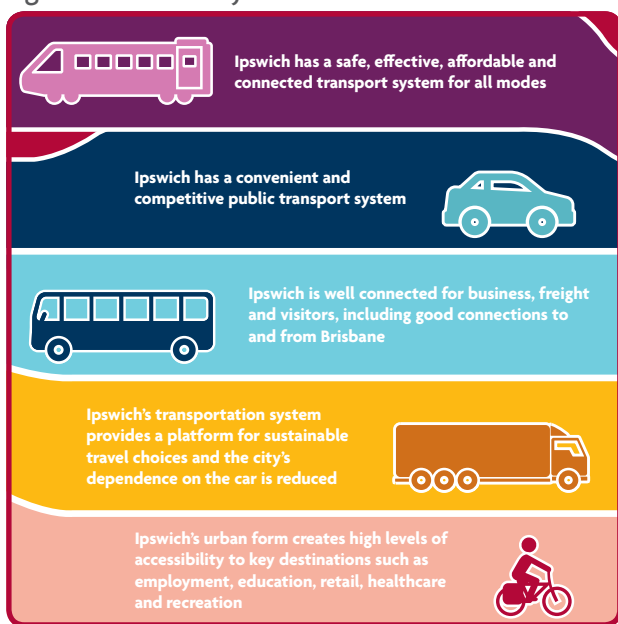
Vision

"Ipswich's transport system is safe and reliable and provides for the sustainable movement of people and goods for all travel modes."

Objectives

iGO's objectives are outlined in Figure E2.

Figure E2: iGO Objectives



Targets

To meet the vision and objectives of iGO, aspirational travel mode share targets have been set for Ipswich.

The iGO target for trips made by sustainable transport modes (public transport, walking, cycling and working from home) is outlined in Table E1.

Table E1: Daily Trips by Sustainable Modes

	Current		iGO Targets	
	Share	Trips	Share	Trips
Daily	15%	100,000	25%	375,000
Journeys to work	12%	22,000	40%	200,000



Principles

iGO has been developed and will be delivered based on the guiding principles outlined in Table E2 below.

Table E2: iGO Principles

Principle	Approach
One Network	All levels of government will need to work together and collaboratively with all relevant stakeholders to ensure the logical, efficient and integrated delivery of Ipswich's future transport system. Council will work in conjunction with other transport providers to ensure that the separation of control over different parts of the network will not affect the overall network coherence and user's experience.
Safety	Public safety is of the utmost importance to all transport authorities and providers.
Reliability	This ensures travel times for the same trip is similar each time it is taken to allow people to plan their journey accordingly. It should be noted that the aim is to have the road network to perform reliably for private vehicle trips - but not necessary efficiently during peak hours.
Sustainability	This includes taking into account the short and longer term environmental, economic, social and cultural interests of Ipswich and its community that takes into account the needs of future generations.
Partnerships	<ul style="list-style-type: none"> • Collaboration and liaison with key transport, traffic and road safety organisations such as the Queensland Department of Transport & Main Roads, Translink, Queensland Rail, the Queensland Police Service and other stakeholders as required. • Partnering and collaborating with tertiary institutions, emergency services, the health sector, business organisations and transport-focused advocacy and stakeholder groups where possible. • Actively engaging and facilitating community groups where required and possible. • Seeking funding opportunities and partnerships between all level of government as well as with the private sector. • Sponsorship, 'in kind' support and seed funding to initiatives, events and organisations that relate to road safety, travel behaviour change and transport and travel innovation.
Affordability	iGO will be delivered in a cost-effective and fiscally responsible manner. Implementation will adhere to the balancing process set out in Council's Financial Sustainability Framework.
Effective Investment	<p>Major investment decisions will be linked to the sustainable outcomes outlined in Advance Ipswich, Connecting SEQ 2031 and iGO. Council will adopt a 'business case' approach for major transport projects to ensure robust, evidence-based investment decisions.</p> <p>Consistent with this, Council will make transport planning and investment decisions based on a hierarchy of interventions as outlined in the diagram to the right.</p> <p>The aim is to use this intervention hierarchy to prevent safety or accessibility problems from occurring in the first place, thereby minimising the need for costly infrastructure investment later.</p> <p>Where a major change or significant investment is being considered, Council will use temporary trials where practicable and appropriate to ensure the effects of the proposal are properly understood.</p> <p>Where new transport infrastructure is being designed, or existing infrastructure is re-designed, the needs of all users and modes will be considered.</p> <p>Council will also provide leadership in regards to:</p> <ul style="list-style-type: none"> • Supporting and enabling new technology; • Sponsorship of road safety and travel behaviour change initiatives; and • Seeking and facilitating investment partnerships.



Elements

Land Use and Transport Integration

Land use and travel demand are linked. Transport infrastructure is provided to service the demand generated by land use and land use patterns evolve from transport networks. How and where future urban growth is planned and directed in Ipswich will be vital in determining the scope and nature of Ipswich's future transport system including the realities of reduced car dependency and trip lengths.

Table E3 outlines iGO's land use/transport integration policy focus with the aim of positively influencing land use patterns and providing Ipswich residents with communities that support sustainable transport choices.

Table E3: Land Use and Transport Integration Policy Focus

Policy Focus	Description
Complete Communities	New developments are designed as "complete communities" with residents having access to a large range of basic everyday goods and services within 10 minutes travel time ('10 Minute Neighbourhood').
Strong Activity Centres	Encouraging the development of a strong hierarchy of activity centres with compact, mixed land uses and a wide range of jobs, services and facilities ('20 Minute City').
Increase density	Increasing density and mix of land uses around major public transport nodes and along major transport corridors (existing and new).

Key iGO land use / transport integration actions include:

- Containing development within the South East Queensland Regional Plan 'Urban Footprint';
- Promote "Complete Communities" and compact, mixed use developments within 400-800m of public transport nodes and corridors through the Ipswich Planning Scheme;
- Facilitate developments that support walking, cycling and the use of public transport; and
- Preserve transport corridors as development occurs.

Public Transport

Public transport can help focus and facilitate compact development and avoid the need for cars for many urban trips. In order to meet iGO's mode share targets there will need to be a major shift from cars to public transport during peak hours with a focus on white collar commuting and education trips. These types of trips make up a significant portion of daily movements on the transport network and present the best opportunities for the provision of a viable and meaningful public transport system.

Table E4 outlines iGO's public transport policy focus with the aim of developing additional public transport capacity and making public transport more appealing and competitive with the car in terms of cost, travel time, convenience, comfort and personal security.

Table E4: Public Transport Policy Focus

Policy Focus	Description
Attracting 'choice' riders	Provision of more frequent and direct services, shorter transfer wait times and competitive fare structures etc.
Connecting Key Activity Centres	Provision of quality public transport services to and from activity centres.
Servicing Greenfield Areas	Servicing emerging urban growth areas such as Redbank Plains south, Deebing Heights, Walloon and Ripley with meaningful public transport services in the interim and in the longer term.
Enhancing Existing Systems	Enhancing opportunities on the existing rail system to achieve mass transit goals.
Accessibility	Improving access to public transport services in both a physical and travel information sense.

Key iGO public transport actions include:

- Extension of the rail line from Springfield Central to Redbank Plains (Keidges Road and School Road Stations);
- Establishment of “High Frequency Priority” bus services between:
 - Ipswich City Centre and Brassall, Yamanto, Deebing Heights and Ripley; and
 - Springfield Town Centre and Redbank Plains, Augustine Heights and Bellbird Park.
- Establish commuter bus services between Karalee/Chuwar/Karana Downs and Flinders View/Raceview and stations along the Ipswich - Brisbane Railway Line.
- Fare structure reform;
- Enhancing the Ipswich/Rosewood and Springfield Railway lines including station upgrades and implementation of an automatic train protection system; and
- Investigate the merits of Council investing in Ipswich’s public transport system.



Active Transport

Almost 50% of car trips are less than 5km in length and a large portion of these trips are for work, education and basic shopping purposes. 5km is an easy cycling distance for most people and distances less than 2km are considered an easy walking distance. This suggests that there are a large number of trips in Ipswich that could potentially be shifted to walking and cycling provided certain barriers are removed.

Table E5 outlines iGO’s active transport policy focus with the aim of developing the active transport network in Ipswich and ensuring that the use of walking and cycling is maximised and the benefits realised.

Table E5: Active Transport Policy Focus

Policy Focus	Description
Building Quality Active Transport Networks	Building quality active transport networks to and within activity centres, schools and public transport stations and stops.
Developing Supportive Active Transport Communities	The design and retrofit of suburbs and communities so that they support active transport networks (i.e. higher density and mixed land uses, end of trip facilities, shade, lighting etc.);
Growing an Active Transport Culture	Supporting, encouraging and celebrating an active transport culture in Ipswich.

Key iGO active transport actions include:

- Develop and implement a detailed *Active Transport Action Plan* which will include a pedestrian and cyclist infrastructure hierarchy and network plan and a prioritised investment program;
- Construction of a network of commuter bikeways linking to and from activity centres; and
- Expansion of the *Healthy Active Schools Travel Program*.



Roads

The road network will remain a major component of Ipswich's transport system. However, as the city grows there will be increasing demands on the road network that will lead to some level of traffic congestion and the need to reprioritise road space to more sustainable modes of transport.

Table E6 outlines iGO's roads policy focus with the aim of developing and managing the road network in a way that meets the essential needs of all users while supporting a major shift to sustainable transport modes for certain trip types.

Table E6: Roads Policy Focus

Policy Focus	Description
Safe, Reliable and Resilient Road Networks	The planning, design and management of Ipswich's road network to ensure it performs in a safe, reliable and resilient manner.
Effectively Balance and Manage the Needs of All Road Users	Space on the road network is prioritised, designed and managed for all of the different types of road users with regard to the overall strategic transport intent.
Support and Enable Technology and Transport Infrastructure Innovations	Supporting and enabling the development, testing, implementation and widespread uptake of new transport related technology.

Key iGO roads actions include:

- Investment in a program of road network development projects. In the short term this includes:
 - Norman Street Bridge business case to secure funding for its construction;
 - Gordon Street - Marsden Parade Link (Ipswich Central);
 - Brisbane Street - Old Toowoomba Rd Link (West Ipswich to One Mile);
 - Redbank Plains Road (Redbank Plains); and
 - Springfield-Greenbank Arterial (Springfield Central)
- Development and implementation of a number of detailed strategies:
 - Road Safety;
 - Traffic Calming Scheme; and
 - Direction Signs and Route Markers.

- Area planning studies (based on the 'SmartRoads' road management approach) for the Ipswich City Centre and Goodna Town Centre;
- Undertake and implement road safety audits for a number of semi-rural roads; and
- Corridor planning studies for a number of strategic links.

Freight

The efficient movement of goods impacts on all of our lives. Ipswich contains 42% of the available business and industry land in South East Queensland and is located at the confluence of two freight routes of national significance.

However, increases in freight volumes and routes present complex challenges, particularly in regards to environmental, safety and community amenity impacts. Being able to effectively balance these issues with the freight task is critical to Ipswich's overall sustainable transport future.

Table E7 outlines iGO's freight policy focus with the aim of increasing freight accessibility and thus supporting economic development, jobs growth and productivity.

Table E7: Freight Policy Focus

Policy Focus	Description
Identifying, Planning and Protecting 'Places for Freight'	Identifying and focusing freight supporting, generating and attracting development into appropriate areas and ensuring that access to these uses from strategic freight routes is well-planned and protected.
Managing the Safe and Efficient Movement of Freight	Outside of pre-approved freight routes, Council is focused on providing a balance between freight efficiency and community safety, amenity and environmental expectations.
Supporting Freight Network Enhancements	Supporting and contributing towards the development and continued enhancement of the strategic freight network.

Key iGO freight actions include:

- Inland Rail Project (Southern Freight Rail Corridor);
- Review of the Ipswich Planning Scheme to ensure that developments are designed to cater for Higher Productivity Heavy Vehicles; and
- Continued assessment of heavy vehicle access requests on the local road network outside of pre-approved routes.

Parking

Parking policies can affect land use patterns, amenity of local streets, public and active transport use, levels of car-dependence and traffic congestion. As the city evolves, Council will need to take a more strategic approach to the provision, management and pricing of parking to ensure that it is balanced with a sustainable transport future, particularly in the Ipswich City Centre and the Springfield Town Centre.

Table E8 outlines iGO's parking policy focus with the aim of assisting with the management of parking spaces, supporting local business and encouraging travel behaviour change as part of a new parking paradigm of parking demand management rather than demand satisfaction.

Table E8: Parking Policy Focus

Policy Focus	Description
Balance Supply & Management Outcomes	Strategically manage car parking to support economic vitality, balance the parking needs of all users and promote sustainable transport use.
New Technology	Improve parking efficiency through new technology.
Public Education	Promote the strategic long term benefits of changing the parking culture in a growing city.

Key iGO parking actions include:

- Continue to implement and revise the Ipswich Parking Strategy and Ipswich City Centre Commuter Parking Action Plan including:
 - Parking prioritisation hierarchy;
 - Parking Management Plans (for various precincts in the Ipswich City Centre); and
 - Parking Pricing Strategy.
- Revise the parking rates in the Ipswich Planning Scheme to promote sustainable travel behaviour; and
- Enabling new parking related technologies.

Travel Demand Management

Travel Demand Management (TDM) is a term used for measures and initiatives that reduce or spread out the demand for single occupancy car travel across modes, space and/or time and thus lead to an increase in the efficiency of the transport system.

TDM measures include:

- Active and public transport
- Car, bicycle and ride sharing
- Public information and education
- Special event ticketing
- Flexible working hours
- Telecommuting (working from home or a hub)
- Pricing

TDM initiatives will greatly expand the range of solutions that can be used to realise Ipswich's sustainable transport future.

Table E9 outlines iGO's travel demand management policy focus with the aim of reducing single occupancy vehicle trips on the road network during peak hours.

Table E9: TMD Policy Focus

Policy Focus	Description
Quadruple Bottom Line Outcomes	Reduce the environmental impacts of travel, reduce transportation system funding requirements, improve the economic efficiency of the movement of people and goods and improve accessibility, mobility and equity.
Influencing Administration Frameworks	Facilitate the implementation of frameworks, incentives and disincentives which assist changes to travel patterns.
Public Education	Focus on delivering TDM initiatives that help individuals and organisations to make informed living and travel choices.

Key iGO travel demand management actions include:

- Investment in infrastructure and community programs that will attract school trips:
 - <3km to active transport modes; and
 - >3km to buses and car pooling programs.
- Engaging with major employment generators to develop Sustainable Workplace Travel Plans; and
- Supporting, undertaking and/or sponsoring campaigns and events that promote road safety and sustainable transport modes.

Delivery

Overview

iGO outlines a generational change to advance Ipswich to a sustainable transport future. Its delivery will require proper investment, clever new thinking, effective resourcing and strong leadership to achieve its vision, objectives and outcomes.

Mechanisms

The mechanisms outlined in Table E10 will make for the effective delivery of iGO.

Key Outcomes

iGO will be delivered with a focus on achieving the following key outcomes:

- ✓ Facilitating travel mode choices;
- ✓ Transport and land use integration; and
- ✓ Culture shift

Table E10: Mechanisms

Mechanism	Approach	Output
Leadership and Governance	Council will adopt iGO and its aspirations and actions as policy. Council will provide leadership to champion the iGO vision and will work to achieve its objectives, targets and outcomes.	Establish an iGO Steering Group to deliver and monitor iGO. Regularly report progress, findings, measures and actions through Council's standing committee governance process.
Transport Planning and Operations	iGO will be used by Council as a tool to assist with Council's transport planning, road safety and traffic management activities.	More detailed network, area and corridor studies. Traffic engineering and design tasks are undertaken to align with the outcomes of iGO.
Investment Planning	iGO and its subsequent strategies and studies will be used by Council as a tool to assist with Council's investment planning activities.	10 Year Infrastructure Investment Plan; Annual capital works portfolio; Annual operational budgets; and Applying for grants and subsidies.
Land Use Planning	iGO and its subsequent strategies and studies will be used by Council as a tool to assist with Council's land use planning and development assessment activities.	Ipswich Planning Scheme; Local Government Infrastructure Plan; and Preserving transport corridors.
Advocacy	iGO will be used by Council as an advocacy tool to assist with attracting investment partnerships and to lobby higher levels of governments for improved public transport services.	Advocacy and lobbying efforts (both political and bureaucratic).
Stakeholder Engagement	The delivery of iGO will require the targeted engagement of stakeholders (including community and user groups, traditional land owners, residents, business operators and developers) using traditional and modern communication methods.	Data collection activities; Implementation of community programs; Public education and promotion initiatives; and Planning and delivery of major transport projects.
Risk Management	Risks, constraints and conflicts involved with the delivery of iGO (i.e. political will at all levels of government, community involvement, funding issues etc.) will need to be identified and properly managed.	iGO Risk Management Strategy
Research	To ensure informed decisions can be made in the delivery of iGO, research into various transport and travel issues will be required.	Research papers

Funding and Financing

The current reality of a globally constrained fiscal environment presents a significant challenge for government investment to keep pace with growth. However it is recognised that there are many benefits of transport investment and that there is also a high cost (an economic, social, environmental and cultural price) of doing nothing.

Providing a more sustainable transport system for Ipswich will reduce the need for investment in significant road capacity upgrades (i.e. having to provide six-lane roads to service peak hour single occupant car trips). However, significant investment in transport infrastructure, services, community programs, public education, Council resources and technology will still be required over the coming decades to see iGO's vision, objectives and outcomes come to fruition.

An action from iGO is to develop and implement an *iGO Resourcing Strategy* relating to the following elements:

- Costing & affordability analysis;
- Funding needs and gaps;
- Corporate capacity building;
- Inventive funding and financing options;
- Investment priorities; and
- Five Year Action Plan (2016-2021).



Evaluation

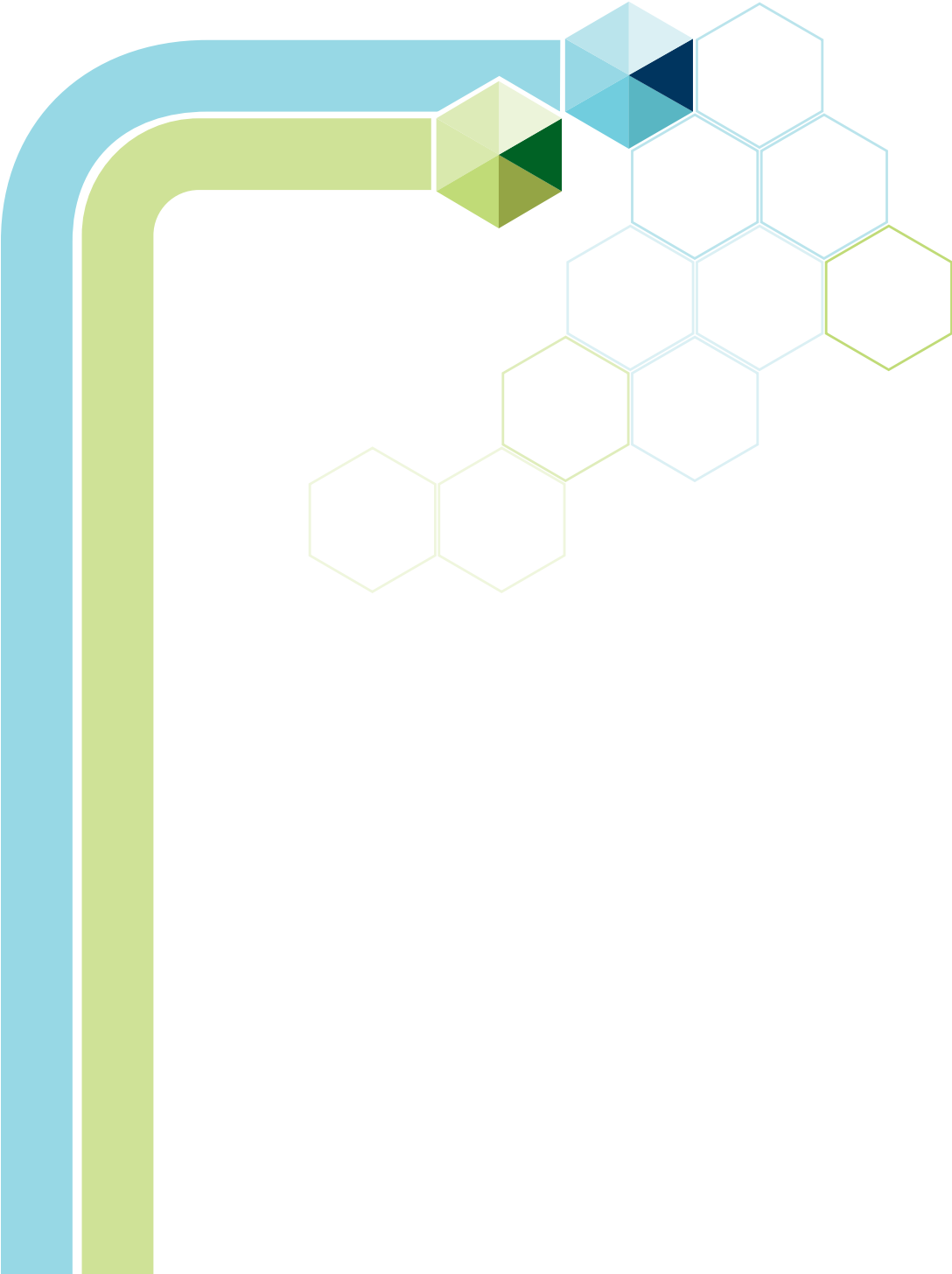
iGO includes a number of evaluation measures as outlined in Table E11. The output is the development and implementation of an *iGO Performance & Data Strategy*.

Table E11: Evaluation

Mechanism	Approach	Output
Monitoring	Track progress towards achieving its vision, objectives, mode share targets, policy focus areas and actions.	Annual Report Card
Review	Minor reviews undertaken as required (web-based changes only); and Major reviews undertaken every five years.	Major review of iGO completed in 2020
Performance Indicators	iGO's monitoring and review processes will be undertaken with the assistance of performance indicators including such measures as parking availability, public transport patronage, network usage, crash and incident analysis, household travel patterns and network connectivity. As part of the development of the iGO Performance & Data Strategy, the required performance indicators, evaluation measures and data types required (including its collection and analysis) will be identified and implemented.	iGO Performance and Data Strategy
Data Collection	The delivery of iGO will require comprehensive, continuous and consistent data to be collected and analysed to ensure accuracy and comparability between performance indicators, annual report cards and five year reviews. This data is also important to the development of supportive iGO 'network' strategies, detailed project planning and community programs.	iGO Performance and Data Strategy



Introduction



Background

Transport is integral to the way of life in Ipswich. Roads, footpaths, bikeways, parking and the public transport system allow the Ipswich community to access the goods and services they need, as well as the employment, education, business, recreation and social interaction opportunities which make Ipswich a great place to live.

The City of Ipswich Transport Plan, branded as 'iGO', is Ipswich City Council's masterplan for Ipswich's transport future. It outlines Council's aspirations to advance the city's transport network to accommodate a population of 435,000 people, a target set by the Queensland Government in the *South East Queensland Regional Plan* and with which the city's land use and infrastructure planning needs to align.

Developing iGO involved a three-fold process:

- (i) Identifying the key transport *challenges* facing Ipswich;
- (ii) Setting a vision and objectives for the kind of transport system which is desired for Ipswich in the future; and
- (iii) Identifying a suite of policy focuses and actions which will advance Ipswich's transport towards achieving this vision and objectives.

The development of iGO has required background research, demand forecasting, modelling and scenario testing to be undertaken.



It has also drawn on the wider vision and priorities for Ipswich that Council has already adopted through documents such as the *Advance Ipswich Plan* and the *Ipswich Economic Development Strategy*.

While iGO is focused specifically on transport, it is consistent with, and supports, a much broader set of priorities for the future of Ipswich.

iGO is presented in the following sections:

1. Introduction

This section provides the background, context, need, horizon, previous work, scope, issues and assumptions which have informed the development of iGO.

2. Aspirations

This section outlines the vision, objectives and mode share targets for the type of transport system iGO is intended to deliver. It outlines the core principles in delivering iGO.

3. Elements

This section outlines the elements which make up iGO, identifies policy focus areas to guide the delivery of iGO and lists a range of actions and projects.

4. Delivery

This section outlines how iGO will be delivered including key outcomes, mechanisms, funding and finance arrangements and evaluation techniques.

Context

The future for Ipswich is bright with many opportunities for economic growth and community development identified in the *Advance Ipswich Plan*.

The *Advance Ipswich Plan* provides Council's overarching vision for the city's future and a framework which outlines how this vision will be achieved. It informs a number of Council's key planning documents including Council's Corporate Plan, Operational Plans and annual budgets.

Under the theme of 'Managing Growth and Delivering Key Infrastructure', a key action from the *Advance Ipswich Plan* is to develop and implement an integrated transport plan which provides a platform for enabling sustainable travel choices through the following options:

- The city being well connected for business, freight and visitors;
- A convenient and competitive public transport system; and
- More compact mixed land uses to reduce trip lengths and make travel by public transport, walking and cycling a viable option to the car.

Figure 1: Advance Ipswich Plan (Managing Growth and Delivering Key Infrastructure Theme)

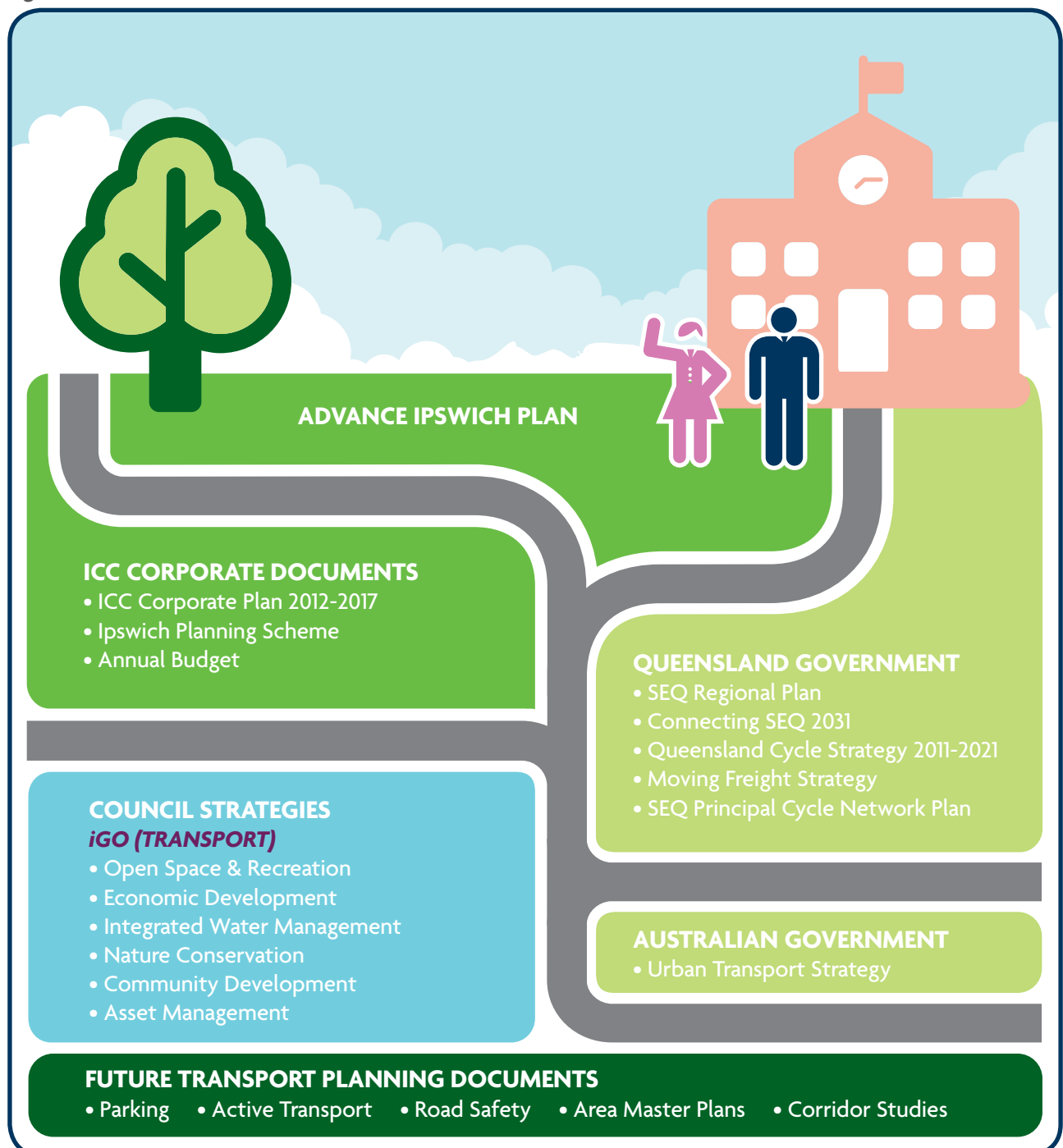


There are a number of other Council strategies and planning documents which directly relate to iGO. These include the *Ipswich Planning Scheme* and the *Ipswich Economic Development Strategy*.

In addition to Council's related documents, there are a number of Queensland Government strategies and plans which have a strong connection to iGO.

These documents include the *South East Queensland Regional Plan* and *Connecting SEQ 2031: An Integrated Regional Transport Plan for South East Queensland*. A number of these documents are currently being revised. However, the relevance between the new documents and iGO is expected to remain. Figure 2 illustrates iGO's policy context.

Figure 2: iGO in Context



Need

Ipswich's population is forecast to more than double over the coming decades.

A long term integrated transport plan for Ipswich is vital to provide direction on how to meet the travel demands which come with Ipswich's forecast population growth, and also achieve the outcomes outlined in the *Advance Ipswich Plan*.

In 2011, the Queensland Government released *Connecting SEQ 2031: an Integrated Regional Transport Plan for South East Queensland*. This document predicts that the number of daily transport trips made by Ipswich residents will triple from about 500,000 in 2006 to 1.5 million by 2031.

Based on the current percentage of trips made by private vehicles in Ipswich (almost 85%), this increase in traffic presents potential concerns from a social, environmental

and resource efficiency perspective. It will also be difficult for governments to fund and provide adequate car only road infrastructure to support the population forecast and economic growth contained in the *SEQ Regional Plan* and *Ipswich Planning Scheme*.

In particular, without an overarching plan to guide the development of Ipswich City Council's long term transport networks, there is a risk that excessive traffic growth may lead to unacceptable levels of congestion on the road network and limitations regarding sustainable growth. A swing to the more sustainable transport modes of public transport, walking and cycling for certain trips can help reduce the need for new road infrastructure and reduce the undesirable impacts of excessive traffic growth.

"The existence of an effective and efficient transport system, which incorporates both public transport and the road network, is critical to developing an economically vibrant and liveable city."

Meeting the Funding Challenges of Public Transport

Tourism and Transport Forum



Horizon

The year 2031 is the current horizon for the *SEQ Regional Plan* and *Connecting SEQ 2031*. The Queensland Government has set a 2031 population target of 435,000 people for Ipswich City, to which Council's land use and infrastructure planning needs to align.

There are a variety of factors which influence growth in population and employment which are outside of Council's control. As such, there is uncertainty about whether this population target will be reached by 2031, in 16 years time. There is a possibility this population total could be reached before 2031 should significant growth take place across the city. However, it is likely this population target will not be reached until much later than 2031.

Council recognises the population of Ipswich will be 435,000 at some point in the future. Therefore, iGO focuses on a transport system required to accommodate a population of 435,000 people, and corresponding employment figures, with less emphasis on the year when Ipswich will reach this population milestone.

Intermediate population targets of 275,000 and 350,000 people have also been considered as part of iGO to assist with the prioritisation of projects and the subsequent development of a 10 Year Transport Infrastructure Investment Plan by Council.

It should be noted that Ipswich will not have reached its full development potential at a population of 435,000 people. Council's land use planning has identified sufficient capacity for a population well in excess of 500,000 people and employment levels in the order of 300,000 jobs that will continue beyond the horizon of iGO.

In summary, iGO is a long term plan to service the travel needs of a citywide population of 435,000 people over a term of 15+ years. A major review of iGO will be undertaken every five years to ensure it aligns with population targets, Queensland Government and Ipswich City Council planning and community aspirations.

"The car is not the enemy, nor is the elimination of cars the solution. It is our societal bias towards the car which must be questioned."

Anne Vernez Mardon
Academic



Previous Work

iGO is Ipswich's first ever transport plan to be integrated across all modes and with a citywide scope.

In the past, the Queensland Government and Council have undertaken planning for various elements of the transport system, either on an individual mode basis or an area basis. This previous work has informed the development of iGO.

This includes, but is not limited to:

- Local Government Infrastructure Plan (ICC 2010);
- Road Hierarchy (ICC 2011);
- Ipswich City Centre Orbital Road System (ICC 2011);
- Ipswich Strategic Traffic Model (ICC 2003, 2010, 2014);
- Ipswich City Centre SATURN Model (ICC 2008, 2014);
- Ipswich Cycle Strategy (ICC 2000);
- Strategic Traffic Count Program (ICC 2010-2015);
- Road network plans for various residential growth areas such as Springfield, Redbank Plains, Ripley, Yamanto, Bellbird Park, Brassall and Walloon as part of land-use master planning exercises;
- Road network plans for various industrial growth areas such as Swanbank, Bundamba/Dinmore/Riverview and Ebenezer;
- Corridor planning for many strategic roads including Redbank Plains Road, Brisbane Street, Grampian Drive and the Marsden Parade realignment; and
- Route planning and feasibility studies for major transport projects including the Ipswich to Springfield Public Transport Corridor, Cunningham Highway, Warrego Highway, Western Ipswich Bypass, Brassall Bikeway and the Norman Street Bridge.



Scope

iGO is a strategic transport plan for Ipswich that considers all modes of land transport.

iGO is aimed at the citywide level with a longer term focus (15+ years). It includes the following elements:

- Land use/transport integration (including urban form and density);
- Public transport (trains, buses and taxis);
- Active transport (pedestrians and cyclists);
- Roads (highways, arterials and local streets);
- Freight;
- Parking; and
- Travel demand management.

iGO is a high level aspirational document providing overarching direction and guidance for the formulation of more detailed planning activities in the future. It is not aimed at the individual property level, will not provide answers to specific locality issues and does not deal with immediate or short term operational matters on the existing transport network.

It should be noted that Council does not operate the public transport network. Nor does Council have the financial capacity, resources or expertise to implement many of the outcomes of iGO by itself. As such, for iGO to be a success, it will require partnerships with the Australian and Queensland Government to provide quality public transport, roads, walking and cycling facilities. Thus, Council will use iGO as its basis to assist with advocating for funding of major transport projects and securing improved public transport services to promote travel behaviour change.



“Transportation determines how we get to the places where we live, work and play. It is imperative we advance an agenda that is people-centred, protects our health, encourages sustainable communities and gives everyone a voice in stimulating a vibrant economy.”

Joint Centre for Political and Economic Studies
Public policy research organisation

Figure 3: iGO Elements



Issues

There are a number of issues that will affect Ipswich's transport future. Some of these challenges are global in nature and effect many cities around the world. Others are more specific to Ipswich due to factors including the city's geography, socio-economic conditions and the nature of our existing transport network.

The key challenges and drivers of change for Ipswich's transport future include:

1. *High Car Use*
2. *Population Growth*
3. *Low Density Suburban Form*
4. *Uncompetitive Public Transport System*
5. *Parking*
6. *Freight Movements*
7. *Physical Inactivity*
8. *Constrained Fiscal Environment*
9. *Fuel and Climate Change*
10. *Limited Space*



High Car Use

Although there are many issues facing Ipswich's transport future, the fundamental issue is a nationwide over-reliance on private vehicles – the transport mode which has been supported the most by policies and investment decisions in the past.

About 85% of all trips in Ipswich are made by private vehicle. Household car ownership levels are increasing (54% of households in Ipswich have two or more cars) and vehicle occupancy rates are low (average of 1.2 persons per vehicle trip). These figures indicate a high dependence on cars in Ipswich.

This reliance on the car, particularly for short trips and journeys to work and education, will have serious implications for traffic congestion, parking demand, economic development, the environment, safety and public health.

Population Growth

Ipswich's population has reached 190,000 and is expected to more than double over the coming decades. The Queensland Government has set a population target for Ipswich of 435,000 people by 2031 that Council's land use and infrastructure planning needs to align.

Ipswich's job numbers are also expected to significantly increase over the coming decades. This includes the expansion of the RAAF Base at Amberley, more than 100,000 new jobs within the city's large industrial growth areas, such as at Redbank, Swanbank, Bundamba, Dinmore and Ebenezer, and economic growth in activity centres at Ipswich Central, Springfield Central, Goodna and Ripley, plus numerous other suburban centres, creating more than 80,000 white collar jobs.

With this significant growth comes an increased demand on our transport system, particularly the road network.

Low Density Suburban Form

Since World War Two, most Australians have traditionally been house owners with big yards, gardens and sheds, characteristically located away from areas of employment, education, shopping and culture in the pursuit of an 'ideal' lifestyle.

This has created a low density suburban form across the nation which is difficult to viably service with meaningful public transport, does not encourage walking and cycling due to impractical trip lengths and in turn promotes the use of private vehicles as the only feasible form of transport for the majority of residents.

The sustainable way of the future is to deliver compact mixed use communities in proximity - walking distance - to public transport, shopping, educational facilities and social interaction opportunities.

Uncompetitive Public Transport

The Ipswich/Rosewood and Springfield rail lines are well patronised during morning and evening peak times for commuter trips, mostly to and from Brisbane. However, during off-peak times existing rail services are all stops to and from Brisbane at 30 minute intervals.

The existing bus network in Ipswich is, in essence, a 'coverage' network servicing predominantly 'captive riders' who use the system because they do not have access to private transport options. Most passenger movements on the bus network are focused outside of peak hours and are mostly attributed to non-employment related journeys. The low frequencies and long journey times associated with a number of the bus routes mean people who have access to private transport do not consider using public transport for their journey to work.

To achieve the necessary mode shift, the public transport network will need to attract a greater number of 'choice riders' through the provision of better services with higher frequencies, priority routing and shorter journey times.



Parking

Although a growing city, Ipswich motorists still expect to park their car for free, in very close proximity to the venue they are accessing. As the population grows, parking demand will increase to a point where parking supply for commuters close to the core of key activity centres, particularly for commuters in the Ipswich City Centre and Springfield Town Centre, will be difficult to continue to be provided.

The construction of more and more facilities for longer stay parking is not the sustainable way of the future as it promotes car use for commuter trips, creates traffic congestion and is detrimental to business activities.

Freight Movements

Ipswich has significant potential for industrial development in areas such as Carole Park, Wulkuraka, Redbank, Dinmore, Bundamba, Swanbank and Ebenezer. To support job growth in Ipswich, planning for the city's industrial needs and the efficient movement of goods is a key outcome of Council's land use and economic development strategies. However, freight movements often conflict with other sensitive land uses and residential amenity.

In addition, increased traffic congestion on the road and rail network has the potential to impact freight and commercial vehicle movements, thus affecting economic growth in Ipswich.



Physical Inactivity

Public health issues such as obesity, heart disease and diabetes can be a direct result of physical inactivity. The over-reliance on the car is a key contributing factor to these public health issues.

A lack of walkable urban environments and concerns about personal safety, particularly for education trips, have reduced opportunities for incidental exercise and increased physical inactivity. This includes incidental exercise associated with the use of public transport and parking a practical distance away from a place of employment.

Providing a transport system which allows people to combine regular exercise through walking or cycling with their daily travel requirements offers a chance of improving community health levels. It also provides the opportunity to reduce multi-car households, generate household savings and reduce emissions.

Constrained Fiscal Environment

Due to a number of factors, there is currently a constrained fiscal environment at national and state levels, and consequently the local level, to fund the delivery of infrastructure. This will impact the timing of when certain transport projects are constructed.

Along with travel behaviour change and making the most out of existing infrastructure, Council will need to look at innovative revenue generation streams, financing mechanisms and funding partnerships to construct major transport projects across the city in the future.

Council will also be required to undertake more robust project justification and advocacy work to secure investment partnerships with the Australian and Queensland Governments.

Fuel and Climate Change

A high reliance on private vehicles increases the exposure of Ipswich residents to longer term global issues such as climate change and fuel economics.

Fuel prices have been volatile for several years and are expected to continue to fluctuate in the future. Higher fuel prices may lead to changes in travel behaviour and people's choice of mode, but also land use and population movements and the cost of maintaining, renewing and developing transport infrastructure.

Limited Space

Limited space on many existing roads in Ipswich will make it difficult to fully accommodate all transport demands and modes in the future. This is a particular concern where there is insufficient space to safely provide for vulnerable road users, such as pedestrians and cyclists, and traffic on the same section of road.

In such situations, it may be necessary to 'pick a winner' with modes that are not given priority suitably provided for elsewhere. Such alternative routes are not always readily available, so allocating safe space to provide for different modes can be a physical, financial and political challenge.





Assumptions

It is largely unknown how transport will operate in Ipswich in the longer term, so it was necessary to make certain assumptions in order to develop iGO.

The effect of unstable fuel prices and the future affordability, uptake and effect of new transport related technologies are important considerations, surrounded by much speculation but little certainty.

iGO takes a flexible approach which recognises and provides for the possibility of significant changes in the nature of transport in the future. Under this approach, planning will be based on the evidence currently available, while retaining a level of adaptability in the event that trends unfold differently.

However, despite this flexible approach, there are some key assumptions on which the strategic direction adopted in iGO is based.

Assumption 1:

The cost of fuel will continue to be volatile.

Due to demand for fuel in developed countries, increasing demand from rapidly developing economies (such as India and China) and the high cost and environmental effects of extracting or developing emerging fuel types, the trend of increasing fuel cost experienced over the past decade could continue for some time into the future. It is also likely to be characterised by price spikes and supply crunches.

The full effect of this price volatility, the future affordability and uptake of alternatives, the influence these factors will have on the way people choose to travel or where they choose to live and when these potential effects may become prevalent is unknown. As such, there is no clear indication that a significant proportion of Ipswich's future population may be able to afford or access these fuels, and/or associated vehicles and infrastructure, before the first scheduled review of iGO.

Assumption 2:

There is a need to provide for the transport requirements of Ipswich residents who do not have access to a car.

Many Ipswich households do not have ready access to a car. To support an acceptable quality of life, these residents need access to essential goods and services. Therefore, meaningful and safe transport options - other than the private vehicle - need to be made available.

Assumption 3:

iGO should give effect to the Advance Ipswich Plan.

To ensure resilience in the event of future challenges, Council has adopted the *Advance Ipswich Plan* which sets out a vision of Ipswich as a more compact city with a high level of liveability, connectivity and accessibility. It also identifies the importance of integration of transport and land-use.

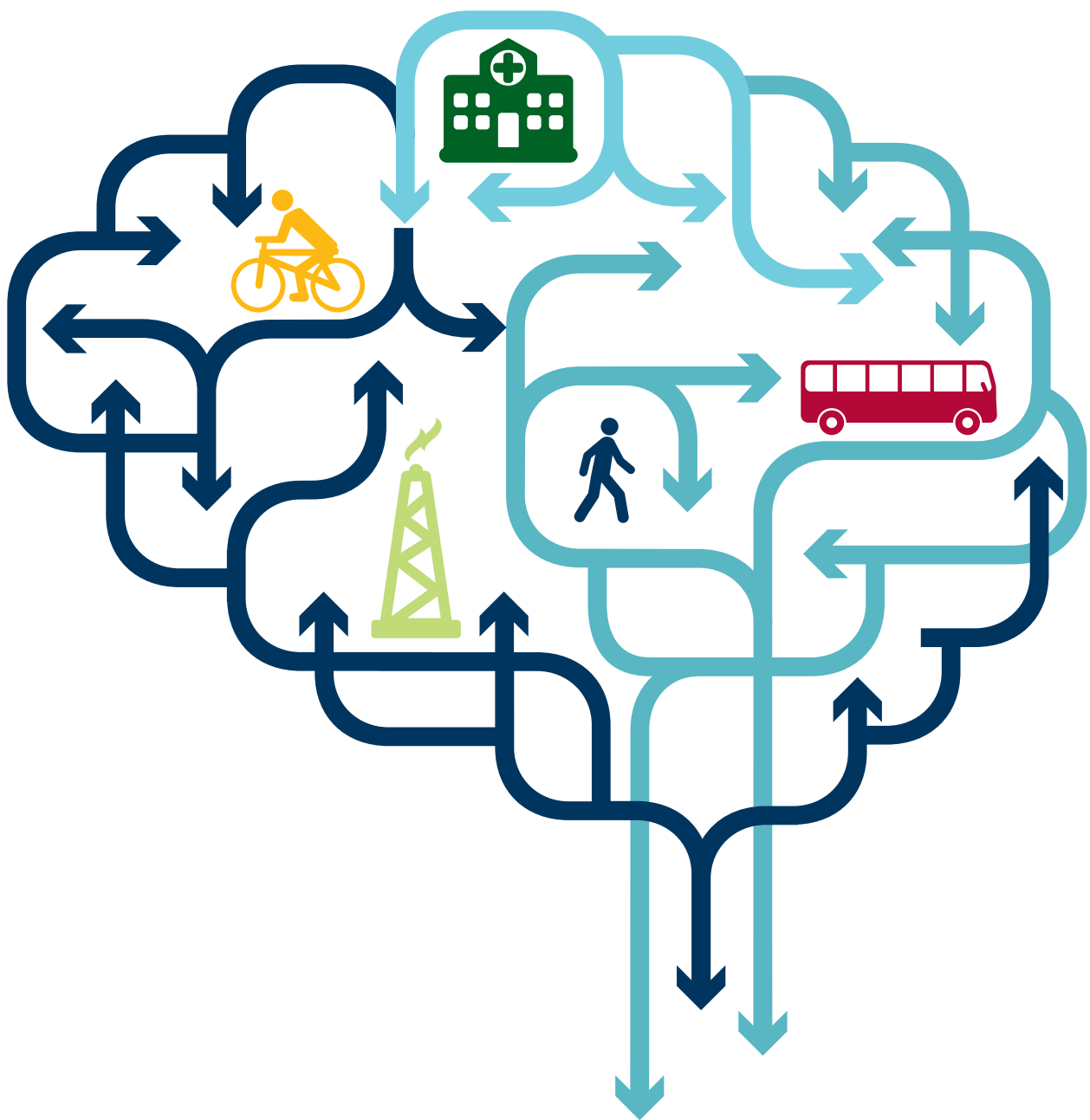
The vision and strategic direction set by the *Advance Ipswich Plan* was developed and adopted through a process of extensive consultation with the Ipswich community. iGO should therefore give effect to the direction set by the *Advance Ipswich Plan*.

Assumption 4:

Providing active and public transport options will contribute to a sustainable and healthy city.

A large body of research highlights the health benefits of active transport modes and incidental exercise associated with public transport. Mode shift from the private vehicle to public transport and active transport may also lead to a per capita reduction in greenhouse gas emissions.

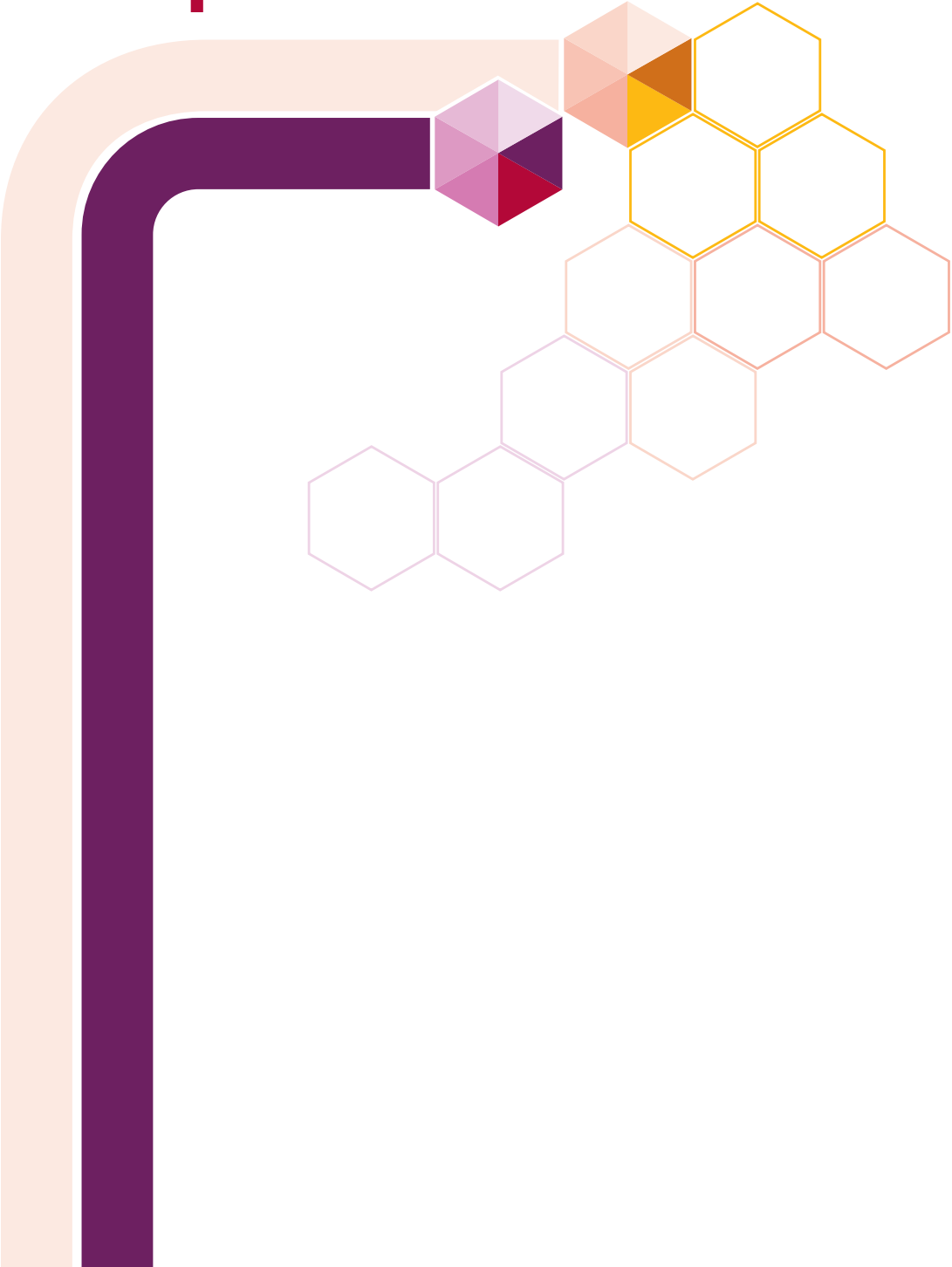
iGO assumes that making public and active transport options safer, accessible and comfortable to use would mean these 'green' modes would be used more and thereby have a positive effect on the sustainability and health of Ipswich and its residents. Building more and more road space simply for car use is not a smart or viable way for the future.





Ipswich Motorway Pedestrian Overpass, Redbank

Aspirations



Vision

Under the theme of 'Managing Growth and Delivering Key Infrastructure', the *Advance Ipswich Plan* identifies the following transport vision for the city:

Figure 4: iGO Transport Vision

Ipswich's transport system is safe, reliable and provides for the sustainable movement of people and goods for all travel modes.



Key Message

The number of daily trips in the City of Ipswich is expected to increase from the current 650,000 to approximately 1.5 million to support a population of 435,000 people. Based on the percentage of trips currently made by private vehicles in Ipswich (almost 85%), this forecast increase in

trips for Ipswich presents potential concerns from a social, environmental and resource efficiency perspective.

It will be difficult to provide adequate road infrastructure to support the forecast population and economic growth contained in the *SEQ Regional Plan* and the *Ipswich Planning Scheme* unless we change the way we move.

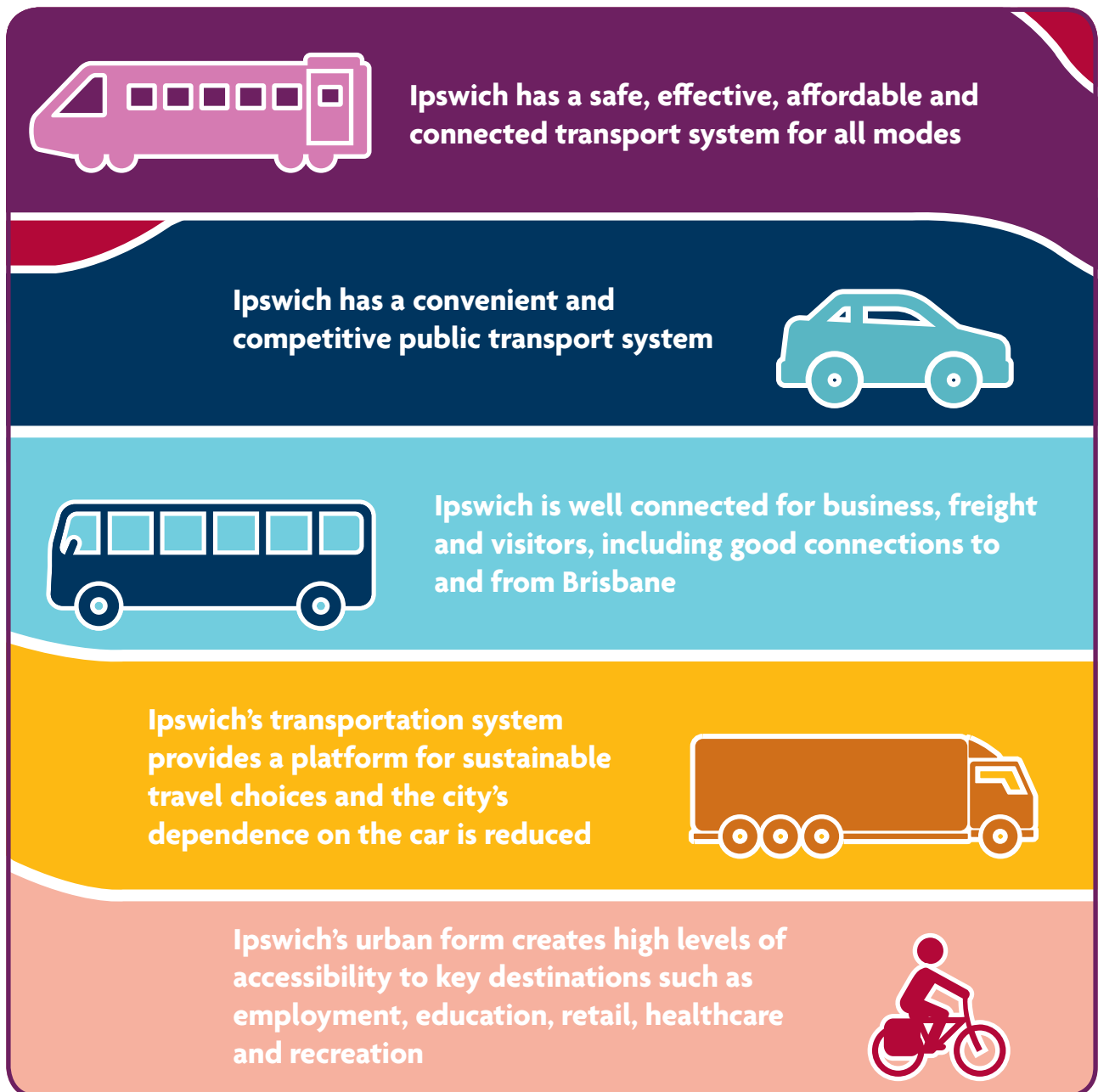


Objectives

The *Advance Ipswich Plan* is based on the policy goals of sustainability, prosperity and liveability. Transport has a key role to play in achieving these goals.

The objectives outlined in Figure 5 are derived from the *Advance Ipswich Plan* and revised for iGO.

Figure 5: iGO Objectives



Targets

The 435,000 population projection for Ipswich set out in the *South East Queensland Regional Plan* will result in a significant increase in the number of trips on Ipswich’s transport system.

Daily Trips

About 650,000 trips per day are currently made on Ipswich’s transport system. This is expected to increase to 1.5 million trips per day by the time the population reaches 435,000.

The current travel mode share in Ipswich is outlined in Table 1 below. Almost 85% of trips are currently made by private vehicle in Ipswich. If this percentage remains unchanged as the population grows, nearly 1.3 million trips will be made by private vehicles each day, as per Table 2.

To meet the vision and objectives of iGO, Council has adopted an aspirational daily travel mode share target for the city as outlined in Table 3.

In essence, the iGO target is to increase the share of daily trips made by sustainable modes of transport, such as public transport, walking and cycling, from the current 15% to 25% of all trips by the time Ipswich’s population reaches 435,000 people. This equates to an increase from the current 100,000 trips per day to 375,000 trips per day made by sustainable modes of transport.

Table 1: Current Daily Travel Mode Shares

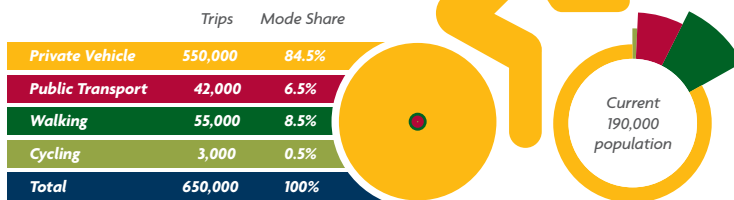


Table 2: Future Trend Travel Mode Shares

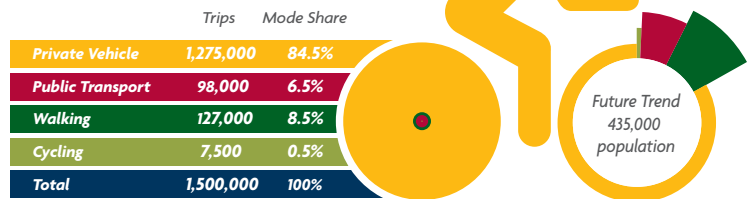


Table 3: iGO Mode Share Target

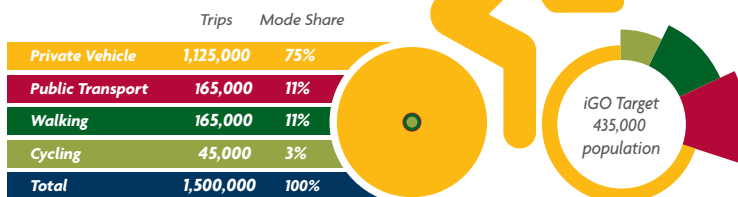
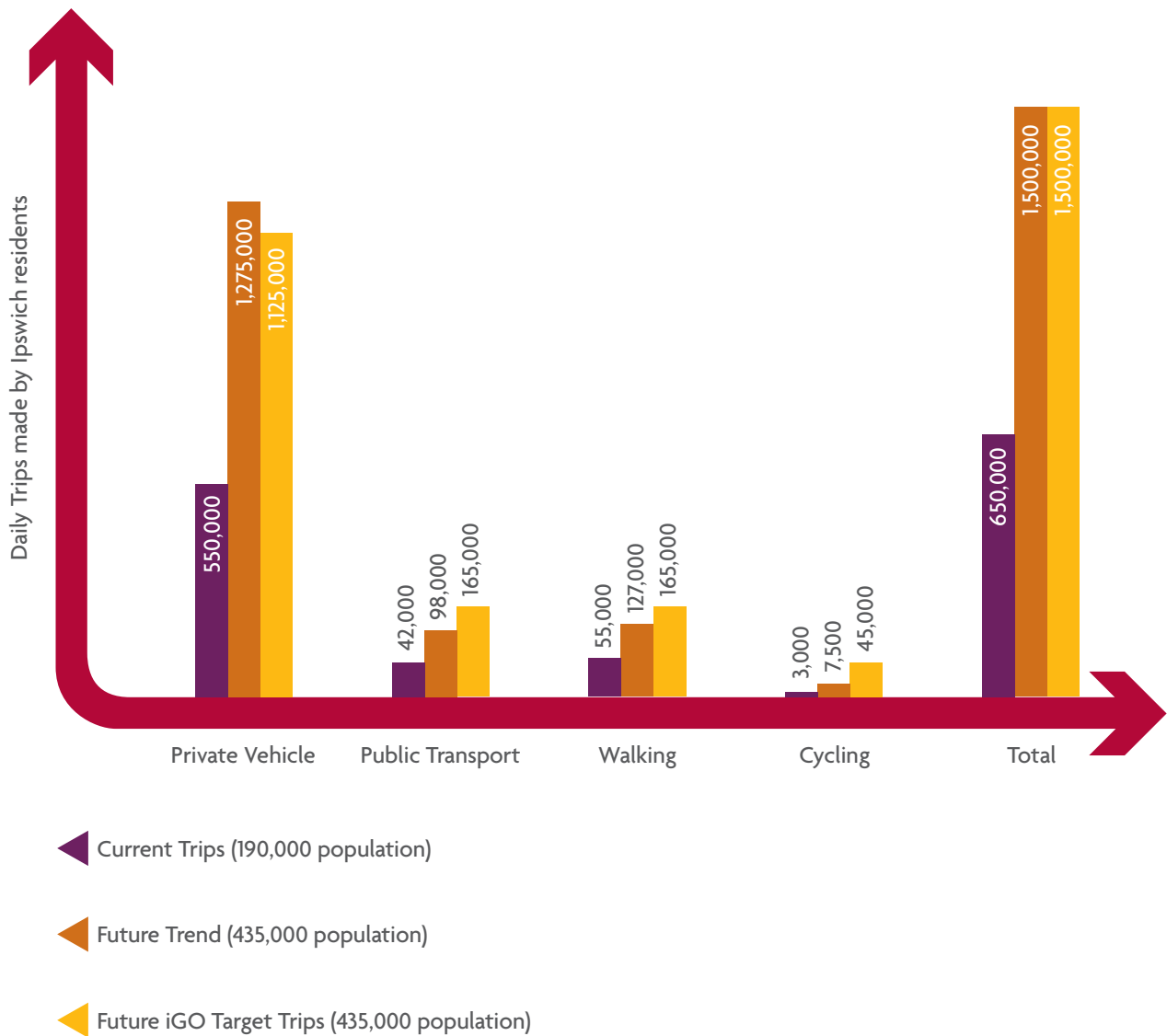


Figure 6 shows the modal breakdown and compares the current daily trips made in Ipswich (with a 190,000 population) and future daily trips (with a 435,000 population) based on both the current mode share and the iGO targets.

It is recognised that different parts of the city will be able to achieve different mode share targets because of different land use types. Rural and industrial areas are less likely to achieve the same sort of walking, cycling and public transport mode shares that are expected in the Ipswich City Centre and Goodna activity centres.

Figure 6: Current and Future Daily Trips in Ipswich



It is also expected that new 'greenfield' development areas, particularly activity centres such as Springfield and Ripley, have higher targets for sustainable travel modes compared to the rest of Ipswich.

Table 4 below outlines the targets for sustainable modes of transport (public transport, walking and cycling) across land uses and areas of Ipswich that, when apportioned across the network, Council's strategic transport model identifies as equaling the citywide target of 25%.

Table 4: Sustainable daily travel mode share targets for various land uses and areas

Principal Activity Centres	Ipswich City Centre	40%
	Springfield Town Centre	50%
Major Activity Centres	Goodna Town Centre	30%
	Ripley Town Centre	40%
District Activity Centres	Booval	30%
	Brassall	
	Redbank Plains	25%
	Redbank	
	Ripley East & West Centres	30%
	Rosewood	15%
	Yamanto	25%
Rail Corridors	Ipswich - Brisbane	
	Ipswich - Rosewood	
	Ipswich - Ripley	30%
	Springfield - Darra	
	Springfield - Ripley	
Bus Corridors	Augusta Parkway (Bellbird Park - Springfield Central)	
	Pine Mountain Road (Brassall - Ipswich Central)	
	Brisbane Road (Dinmore - Ipswich Central)	
	Brisbane Street (West Ipswich)	25%
	Redbank Plains Rd (Redbank to Goodna)	
	Kruger Parade (Redbank Plains - Redbank)	
	Warwick Road (Yamanto - Ipswich Central)	
Major Education Facilities	University of Southern Queensland (Ipswich & Springfield campuses)	25%
	Bremer Institute of TAFE	
Industrial		5%
Residential	General	20%
	Ripley	25%
	Rosewood	15%
	Springfield	25%
	Walloon-Thagoona	20%
	Large Lot Residential (Karalee, Pine Mountain etc)	5%
Rural		5%
OVERALL		25%

Journey to Work Trips

To be able to meet the daily travel mode share targets, it is also prudent to set travel mode share targets for 'journey to work' trips as this is where the most effort is required to address peak hour demands on the road network and reduce private vehicle dependency.

Table 5 outlines the current 'journey to work' travel mode shares for Ipswich.

To meet the vision and objectives of iGO, Council has adopted an aspirational 'journey to work' travel mode share target for the city as outlined in Table 6.

Table 5: Current Journey to Work Travel Mode Shares

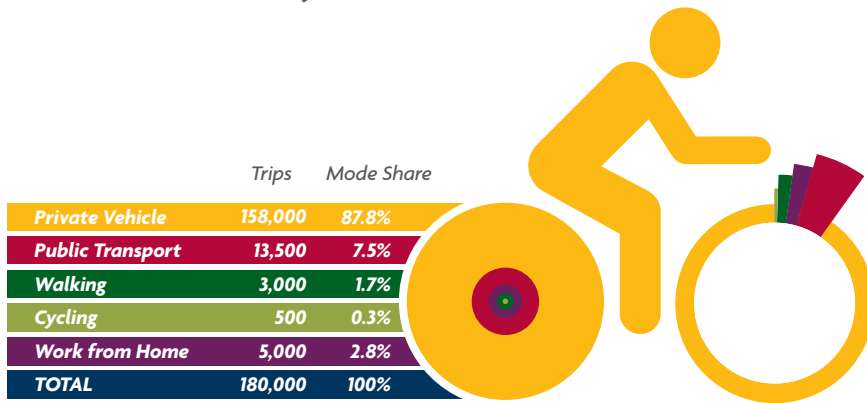
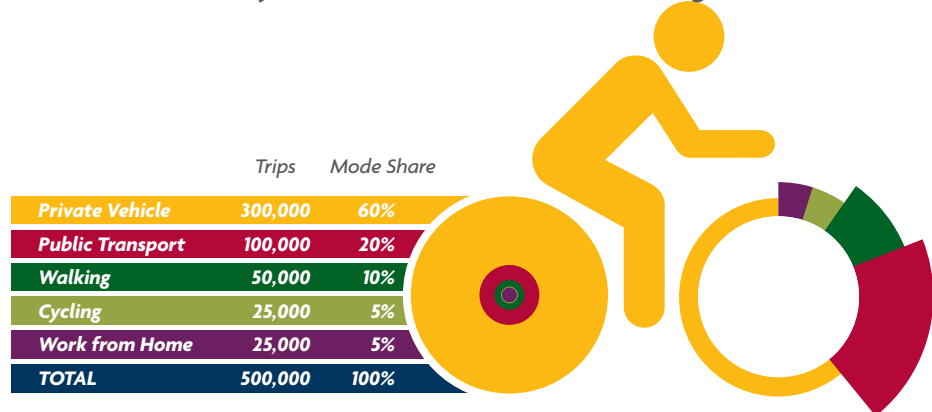


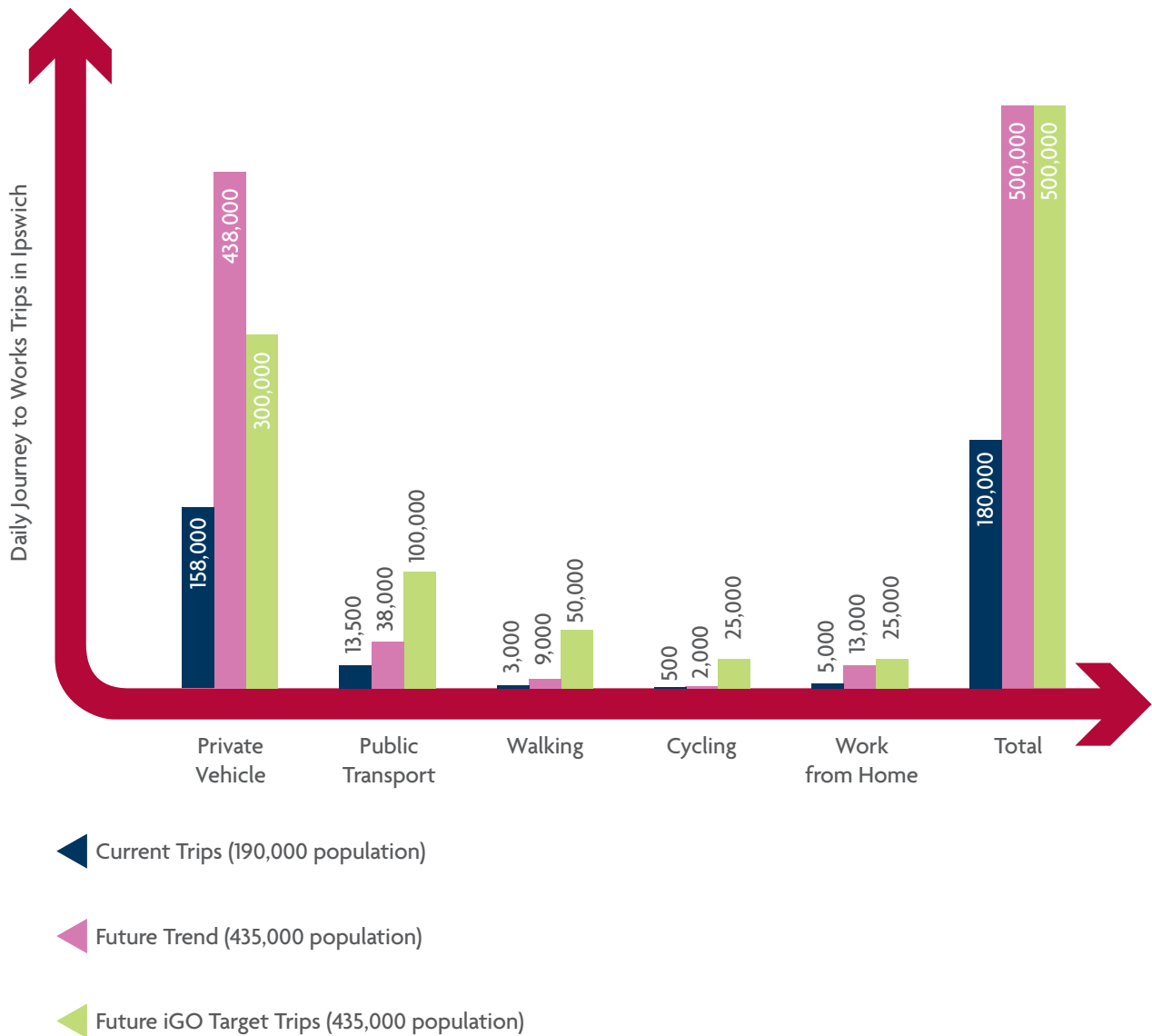
Table 6: iGO Journey to Work Travel Mode Share Target



In essence, the iGO target is to increase the share of trips to work made by sustainable modes of transport, public transport, walking, cycling and work at home, from the current 15% to 40% by the time Ipswich's population reaches 435,000 people. This equates to an increase from the current 22,000 trips per day to 200,000 trips per day made by sustainable modes of transport.

Figure 7 shows the modal breakdown and compares the current work trips made in Ipswich, with a 190,000 population, and future 'journey to work' trips, with a 435,000 population, based on both the current mode share and the iGO targets.

Figure 7: Current and Future Journey to Work Trip in Ipswich





Principles

The core principles for developing and delivering iGO are:

Principle 1: One Network

A 'one network' approach will be taken for the development and management of Ipswich's transport system.

This means that all levels of government will need to work together and collaboratively with all relevant stakeholders to ensure the logical, efficient and integrated delivery of Ipswich's future transport system. Council will work in conjunction with other transport providers to ensure that the separation of control over different parts of the network will not affect the overall network coherence and user's experience.

Principle 2: Safety

A 'safety' approach will be taken to the development and management of Ipswich's transport system. Public safety is of the utmost importance to all transport authorities and providers.

Principle 3: Reliability

A 'reliable' approach will be taken to the development and management of Ipswich's transport system. This ensures travel times for the same trip is similar each time it is taken to allow people to plan their journey accordingly. It should be noted that the aim is to have the road network to perform reliably for private vehicle trips - but not necessarily efficiently during peak hours.

Principle 4: Sustainability

A 'sustainable' approach will be taken to the development and management of Ipswich's transport system. This includes taking into account the short and longer term environmental, economic, social and cultural interests of Ipswich and its community that takes into account the needs of future generations. Negative impacts from the use and development of the transport system on the natural environment and the community are avoided, remedied or mitigated as much as possible.

Principle 5: Partnerships

A 'partnership' approach will be taken to the development and management of Ipswich's transport system.

This includes:

- Collaboration and liaison with key transport, traffic and road safety organisations such as the Queensland Department of Transport and Main Roads, Translink, Queensland Rail, the Queensland Police Service and other stakeholders as required.
- Partnering and collaborating with tertiary institutions, emergency services, the health sector, business organisations and transport-focused advocacy and stakeholder groups where possible.
- Actively engaging and facilitating community groups where required and possible.
- Seeking funding opportunities and partnerships between all levels of government as well as with the private sector.
- Sponsorship, 'in kind' support and seed funding to initiatives, events and organisations that relate to road safety, travel behaviour change and transport and travel innovation.

Principle 6: Affordability

An 'affordability' approach will be taken to the development and management of Ipswich's transport system. iGO will be delivered in a cost-effective and fiscally responsible manner. Implementation will adhere to the balancing process set out in Council's Financial Sustainability Framework.

Principle 7: Effective Investment

An 'effective investment' approach will be taken to the development and management of Ipswich's transport system. Major investment decisions will be linked to the sustainable outcomes outlined in *Advance Ipswich, Connecting SEQ 2031* and iGO.

Council will adopt a 'business case' approach for major transport projects to ensure robust, evidence-based investment decisions.

Consistent with this, Council will make transport planning and investment decisions based on a hierarchy of interventions outlined in Figure 8. The aim is to use this intervention hierarchy to prevent safety or accessibility problems from occurring in the first place, thereby minimising the need for costly infrastructure investment later.

Where a major change or significant investment is being considered, Council will use temporary trials where practicable and appropriate to ensure the effects of the proposal are properly understood. Where new transport infrastructure is being designed, or existing infrastructure is re-designed, the needs of all users and modes will be considered.

Council will also provide leadership in regards to:

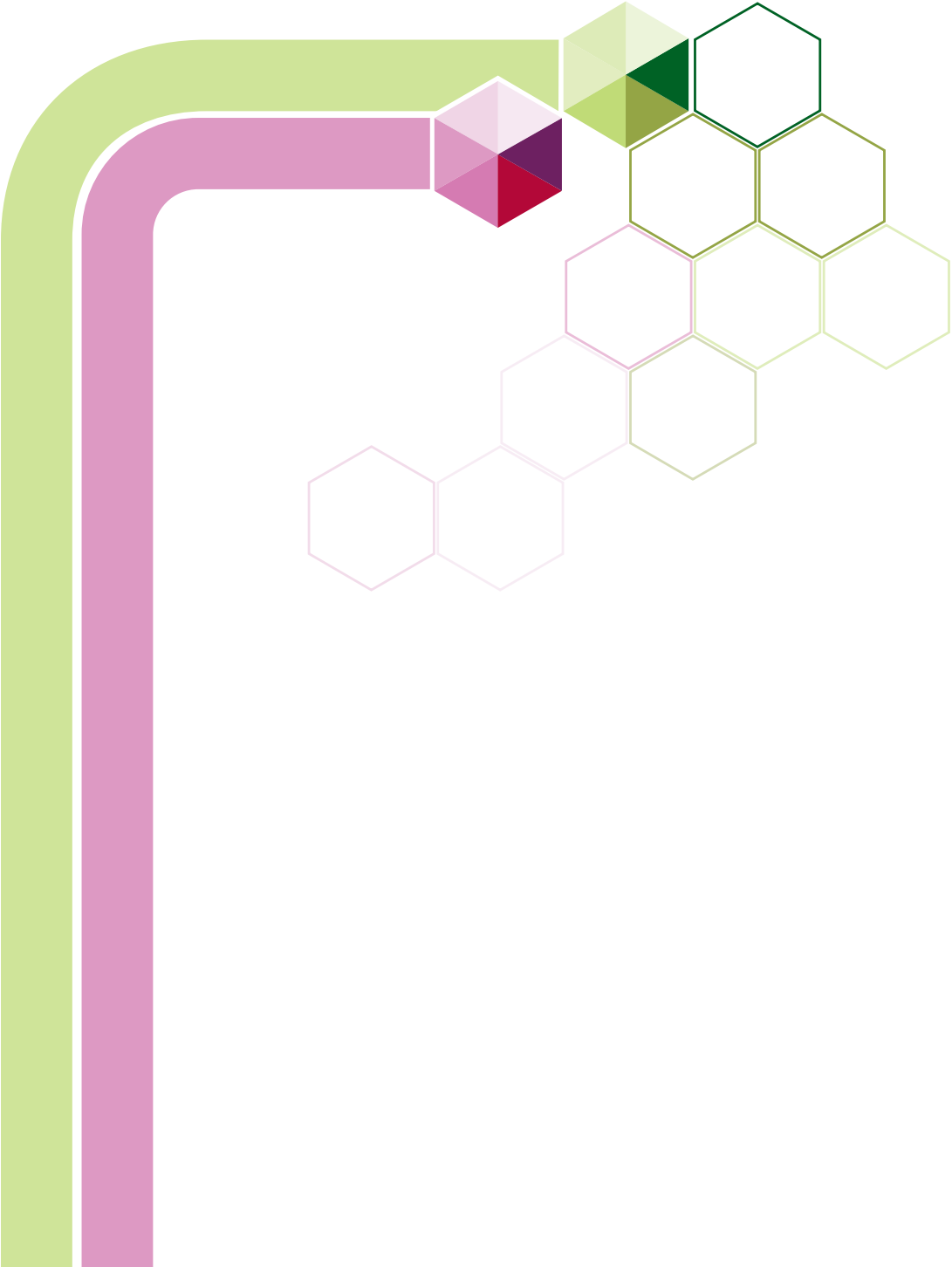
- Supporting and enabling new technology;
- Sponsorship of road safety and travel behaviour change initiatives; and
- Seeking and facilitating investment partnerships.

Figure 8: Hierarchy Of Interventions To Optimise Transport Investment.





Elements





**LAND USE
AND TRANSPORT
INTEGRATION**

central walk

Introduction

Land use and travel demand are intrinsically linked. Transport infrastructure is provided to service the demand generated by land use and land use patterns evolve from transport networks.

Land use patterns and urban form shape many aspects of travel demand. For example, land use can influence trip origin and destination (i.e. where people want to go), the length of the trip (i.e. trip distance/time/accessibility) and the choice of transport mode used to complete the trip (i.e. car, public transport, walking or cycling). Consequently, the location and form of development is a key factor in developing a sustainable urban transport system.

At the same time, it is equally true that transport systems greatly influence the form and nature of development. For example, the majority of previous development locations and forms in Ipswich have responded to the predominance of the car and as a result, the ability to access these developments sustainably by other means is greatly limited.

Given the high population growth rate projected for Ipswich, there is significant potential to bring about fundamental travel behaviour change during the life of iGO. How and where we plan and direct future growth will be vital in determining the realities of reduced car dependency and the scope and nature of the future transport system.

As the responsible authority for guiding and approving development, Ipswich City Council is a lead player in achieving a connected 'city of centres' and promoting communities which can be supported by a sustainable transportation system.

In particular, the targeted and consistent application of land use policies based around compact, mixed use and connected communities will positively influence sustainable travel behaviours, particularly in new developments, and reduce the overall demand for private vehicle travel.

Conversely, strategic, long term and sustained investment in sustainable transport infrastructure and services, particularly public transport, also creates considerable potential to sustainably shape Ipswich's future growth and development form. However, it is recognised that a combination of the approaches will achieve the best results. For these reasons, transportation and land use should be viewed as interdependent.

"The coordinated implementation of land use and transportation policies are the key to solving a variety of urban problems including traffic congestion, air pollution and the decay of central areas."

Bruce Appleyard

Urban planner, academic and author





Context

Urban Sprawl

Spread out land use patterns, referred to as urban sprawl, have stemmed from transport and land use planning systems which prioritise the private vehicle. This prioritisation when combined with the supply of inexpensive ready-to-develop land subsequently influences how people choose to locate their homes and businesses. What inevitably follows is dispersed and segregated development which is dependent on the private vehicle for access to critical needs (i.e. employment, education, retail and medical services etc.)

However, spread out land use patterns further increase the demand for private vehicle use because of greater trip distances and travel time between destinations. This has become a perpetual cycle which has promoted our nation's dependence on cars to travel. However, this cycle is unsustainable in the long term for many reasons.

State Planning Policy

The State Planning Policy (SPP) is a key component of Queensland's land use planning system which enables responsible development and promotes communities to be liveable, sustainable and prosperous.

The SPP outlines state interests which must be considered by local governments when preparing or amending their planning schemes and in assessing development applications.

Further information on the SPP can be found at www.dilgp.qld.gov.au

South East Queensland Regional Plan

The *South East Queensland (SEQ) Regional Plan* is the Queensland Government's urban growth management policy for the region. It was first released in 2005, revised in 2009 and is currently being reviewed.

The main purpose of the *SEQ Regional Plan* is to restrict the growth of urban sprawl through two key mechanisms:

- The establishment of the 'Urban Footprint' - a regulatory boundary to contain urban growth, minimise speculation, protect natural landscapes

and retain rural areas with agricultural value. The urban footprint is outlined in Map 1. In essence, no urban development will be approved outside the urban footprint.

- The promotion of higher density living and infill developments in designated areas called 'Activity Centres'.

The *SEQ Regional Plan* supports a network of major activity centres (refer Figure 9) which provide the focus for services, employment and social interactions and are connected to each other by good public transport services. A network of activity centres also allows jobs and services to be decentralised away from the Brisbane Central Business District. This activates communities, reduces the amount of time people spend commuting and allows transport infrastructure to be used more efficiently and effectively.

Ipswich Planning Scheme

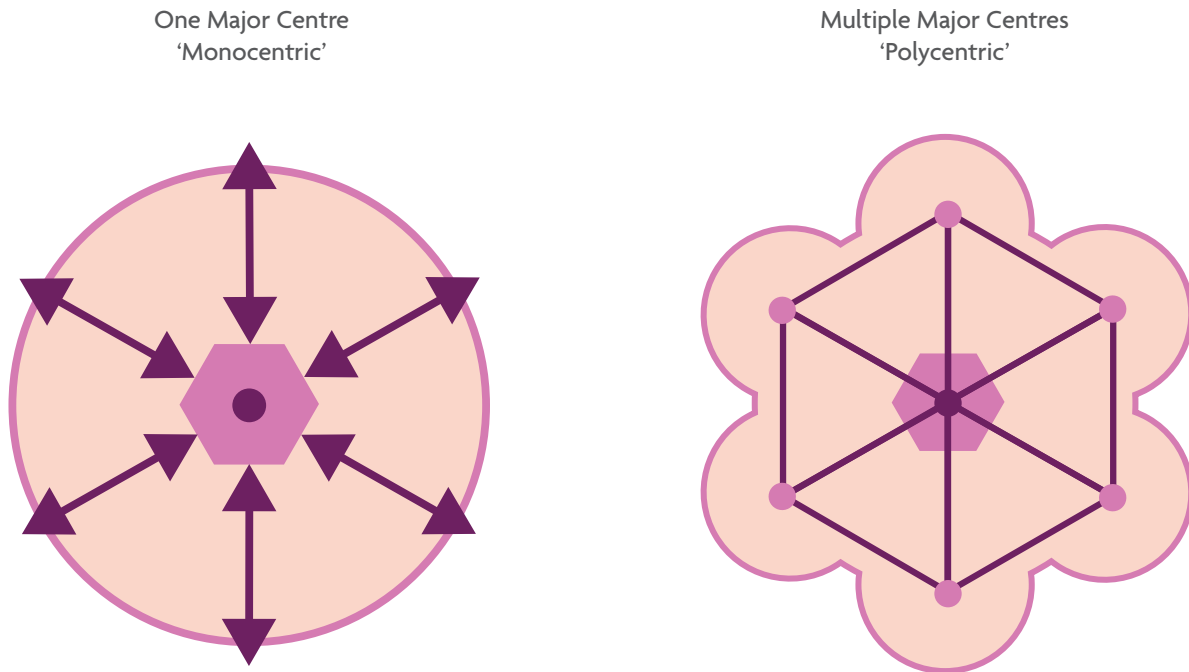
The *Ipswich Planning Scheme* is Council's statutory document to manage growth and guide how land in Ipswich can be used and developed. It also helps plan for infrastructure to support growth and create a more diversified economy while continuing to protect the city's lifestyle.

The *Ipswich Planning Scheme* is:

- A regulatory requirement of the Queensland Government under the *Sustainable Planning Act 2009*;
- Informed by the policy outcomes of the *State Planning Policy* and the *SEQ Regional Plan*;
- Regularly updated. NOTE: A major revision of the *Ipswich Planning Scheme* is proposed over the coming years to align with the Queensland Government's proposed urban planning reform agenda;
- Intrinsically linked to iGO - its vision, objectives, policy focus and subsequent actions.

Further information on the *Ipswich Planning Scheme* can be found at www.ipswichplanning.com.au

Figure 9: A schematic diagram comparing the layout of a region with one principal activity centre ('monocentric') and a regional with a network of major centres ('polycentric').



Source: Department of Infrastructure and Planning (2009, South East Queensland Regional Plan 2009-2031)

"Population density and the degree of mixture of land uses are directly influential with travel choices such as mode, length and frequency of trips. That is, there is actually a direct causation between urban form and trip making."

Dr Ray Brindle

Transport planner, academic and author



Existing Situation

Some 38,450 people, the equivalent to 53% of working residents, commute to areas outside of Ipswich for work - mostly between Ipswich's eastern suburbs and Brisbane. Conversely, 51,000 people currently work in Ipswich and of this amount, 17,000 people (33%) live outside the Ipswich local government boundary.

Council's transport modelling indicates that with the development of the city's activity centres and regional business and industry areas to their full potential, Ipswich will over time become a 'job importer'. This being where there will be more jobs available in Ipswich than there are residents of working age. This will have implications on Ipswich's future land use patterns and transport system.

Over the life of iGO, the majority of development in Ipswich will occur within the current SEQ Regional Plan 'urban footprint.'

Greenfield Areas

Ipswich contains a number of 'greenfield' urban development areas as outlined in Table 7.

These areas will contain the large majority of new residents expected in Ipswich over the coming decades. Most of these areas have been 'master planned' (albeit at a high level) to ensure coordinated transport and development outcomes.

Table 7: Greenfield Development Areas in Ipswich - existing, emerging and planned.

Area	Location
East	Augustine Heights
	Bellbird Park
	Brookwater
	Collingwood Park
	Redbank Plains (south)
	Springfield
	Springfield Central
	Springfield Lakes
Spring Mountain	
South	Deebling Heights
	Ripley
	South Ripley
	Yamanto
North	Brassall (north-west)
	Karalee and Chuwar (large lot residential)
West	Rosewood
	Thagoona
	Walloon

Infill Development

Redevelopment/regeneration will also occur in existing suburbs including subdivision of existing properties and the construction of duplexes and town houses. These areas include Booval, Goodna, Ipswich Central, North Ipswich and Raceview.

Activity Centres

Ipswich contains a number of existing, emerging or planned activity centres that are areas of concentrated commercial, retail, education, medical and cultural land uses (refer Table 8 and Map 1)

Table 8: Activity Centres in Ipswich - existing, emerging and planned.

Level	Location
Principal	Ipswich City Centre
	Springfield Town Centre
Major	Goodna Town Centre
	Ripley Town Centre
District	Booval
	Ripley East
	Brassall
	Ripley West
	Karalee
	Yamanto
Local	Redbank
	Rosewood
	Redbank Plains
Local	various

Regional Business and Industry Areas

Ipswich contains numerous areas designated for regionally significant business and industry land uses as outlined in Table 9 and Map 1.

Table 9: Regional Business and Industry Area in Ipswich - existing, emerging and planned.

Area	Location
East	Carole Park
	Redbank
Central	Bundamba
	Dinmore
	New Chum
	Riverview
	Swanbank
West	Amberley
	Ebenezer
	Wulkuraka

Opportunities

Ipswich has a number of opportunities for land use/transport integration particularly regarding the intensification of development around Activity Centres and public transport hubs.

Population Growth

Ipswich is the western gateway to SEQ and is forecast to experience the fastest rate of population growth in the SEQ region. This growth and subsequent development pressure often acts as a catalyst and provides Ipswich with an opportunity to attract investment and support for new transport infrastructure. Ensuring that this growth and development pressure is focused towards targeted land use outcomes will enable investment in more sustainable forms of transport infrastructure.

Priority Infrastructure Area

The Queensland Government statutorily requires each Council to set out a Priority Infrastructure Area (PIA) in its Local Government Infrastructure Plan (LGIP) which outlines the spatial area for the provision of trunk infrastructure (such as arterial roads) to accommodate forecast growth over a 10-15 year period. In essence it is an area to which development is directed based on the ability to sustainably service future development in the PIA timeframe. The current Ipswich PIA is outlined in Map 1.

The LGIP includes additional areas that are outside the PIA but these are projected and planned to develop for urban purposes in a longer time frame than 10-15 years. These areas are also inside the Urban Footprint as defined in the SEQ Regional Plan. The current Ipswich LGIP identifies areas that can be developed for urban purposes in which the 435,000 population target (and more) can readily be accommodated. These include the emerging and planned areas outside the PIA such as the greenfield areas of Ripley Valley and Walloon - Thagoona and regional business and industry areas of Swanbank and Ebenezer.

The PIA is a tool which integrates and priorities transport investment to support projected urban growth. Where development is proposed outside of the PIA, development can still proceed but additional requirements are placed on the developer to deliver and fund the required infrastructure if it is not already available.

Activity Centres

To ensure their economic, civic and sustainable transport success, it is important that significant and compact residential/employment/mixed use development occurs in and in close proximity to the city's activity centres. This will encourage people to live, shop and undertake recreation closer to where they work, therefore reducing people's overall reliance on the private car for many trips. By connecting these activity centres with high frequency public transport services, it also provides people with a viable and more sustainable alternative to the car for travelling out of the activity centre to other areas of Ipswich. The iGO Public Transport Section on p. 54 has more information.

Existing Transport Corridors

The existing Ipswich/Rosewood and the Springfield railway lines provide excellent public transport opportunities for Ipswich's transport future. From a land use – transport integration perspective, the existing railway lines provide opportunities to increase densities within a walkable catchment of 400-800 metres around selected railway stations to create more compact and connected mixed use communities.

Future Transport Corridors

The Ipswich to Springfield Public Transport Corridor, see Map 3, provides good opportunities to integrate and positively influence the sustainable development of urban developments in new and emerging 'greenfield' communities at Ripley, Deebing Heights, Yamanto and Redbank Plains.

Further, the creation of strategic bus corridors and high-frequency bus routes in Ipswich, (see Map 3), may provide good opportunities to increase residential densities and create compact communities within a walkable catchment of strategic bus corridors such as Augusta Parkway, Redbank Plains Road and Robertson Road subject to detailed planning analysis.



Challenges

Challenges for land use - transport integration include understanding the land use implications of deprioritising the private vehicle and the realities of market demand.

Deprioritising the Private Vehicle

Traditional transport and land use planning approaches have prioritised the private vehicle. Understanding the land use implications of deprioritising this mode (i.e. reduced parking spaces, different housing designs, realities of creating more walkable and cycle friendly and public transport supported neighbourhoods) and implementing the outcomes is a key challenge. It is accepted that future technology advances (i.e. 'apps', driverless cars etc.) and generational attitudes will likely play a role in how this challenge is addressed.

Market Demand

Council provides a development framework and has the ability to put in place policy incentives for sustainable development. However, it must be acknowledged that market demand plays a key role in what type of development gets invested in and put on the ground. This is because development is an economic decision and people only invest in a development if it makes economic sense to them. As such, catalyst developments which denote the desired urban form are often required to start a trend and these can be triggered by transport infrastructure.

Timing of Delivery

Timing is everything. In the early stages of transport and land use planning it is important to ensure that land is preserved for future transport corridors so that future development can be focused in the right areas and design compromises do not have to be made when the transport infrastructure is ready to be built.

Certainty on when the transport infrastructure is to be delivered is also key. This is to ensure that the provision of higher densities along these corridors can be timed appropriately or an interim solution is in place so the two approaches support each other rather than residents reverting back to the private vehicle to travel or having a transport system which is not sustainable.

However, preserving future transport corridors and having certainty on transport infrastructure delivery are two matters which are dependent on multiple variables (i.e. population growth, political climate, government funding availability), many of which are outside of Council's control.

Multiple Growth Fronts

Ipswich is a competitive city as it is able to support multiple growth fronts, (e.g. multiple greenfield development sites, retrofitting existing suburbs and developing activity centres and regional business and industry areas across the city). However, determining how to prioritise the funding and delivery of land use and transport infrastructure across these multiple growth fronts while managing and meeting the communities transport expectations will be a challenge.

Retrofitting Existing Suburbs

Achieving higher densities around existing railway stations and developing strong activity centres will involve retrofitting/regenerating existing suburbs. This presents challenges in the form of space required for essential transport and land use infrastructure (i.e. strategic bus corridors, schools, mixed use towers) which, when compared to greenfield areas, is more difficult to achieve in existing suburbs.

Furthermore, it is acknowledged that there are people who already live in these suburbs who like the way they currently are. Ensuring these residents feel welcomed and involved in managing how growth occurs in their suburb is integral to maintaining and strengthening these communities and their individual identities.

Character Precincts

Ipswich has a diverse heritage and Council recognises that this heritage is one of the city's greatest assets. Consequently, achieving higher densities in these character precincts must be carefully managed so as to be sympathetic and respectful to the overall identity of the area. It is acknowledged that higher densities in some character precincts may not be appropriate despite the overall sustainable transport policy intent.

Policy Focus

In order to promote integration between land-use and transport, to reduce trip lengths, reduce private vehicle dependency and support trips by more sustainable modes, urban sprawl needs to be limited with a policy focus given to the following elements:

- New developments based around sustainable transport to create 'Complete Communities';
- Encourage the development of strong activity centres;
- Increase density around major public transport nodes and in designated locations along major public transport corridors (existing and new);

Complete Communities

The notion of 'complete communities' in new and emerging greenfield areas will reduce trip lengths and private vehicle travel demand¹. Complete communities are characterised by compact and mixed land uses with the following elements:

- Activity centres and neighbourhoods linked by natural and man-made corridors;
- Access to a large range of basic everyday goods, services, recreation and social interaction opportunities within a 10 minute walk, cycle or public transport ride from where people live – 'The 10 Minute Neighbourhood' (refer Figure 10);
- Streets designed as civic 'places' which form a connected network which is equitable for vehicles, pedestrians and cyclists and provides alternative routes to disperse traffic; and
- Diversity in the type, size and design of buildings, streets and open spaces to create options in uses, environment, experiences and functions.

These characteristics are demonstrated in Figure 11. With a population of 435,000, the City of Ipswich will be at a size where it will have a sufficient market for not only all basic services but also provision of just about all high end goods and services. This aim is to make Ipswich a '20 Minute City' where access to high level goods and services as well as job opportunities are within 20 minutes travel time of where people live.

To be a success, investment in public transport will need to be coordinated with the development of complete communities.

1. Galina Tachieva, Sprawl Repair Manual (Florida: Duany Plater-Zyberk & Company, 2010)

Strong Activity Centres

As the city's principal activity centres, the Ipswich City Centre and the Springfield Town Centre should at a minimum:

- Be linked to/from the Brisbane CBD and each other with high capacity, high frequency public transport services;
- Have the densest urban form in the city; and
- Provide the widest range of land uses that can be facilitated in one area.

The Goodna and Ripley Town Centres (major activity centres) should accommodate a wide range of shopping, employment, community, health, education and housing options, be serviced by high capacity public transport and have good access to the arterial road network.

The various district activity centres across the city (e.g. Brassall, Booval, Yamanto etc.) should serve local communities and be connected with quality local public transport services.

Increase Density

Compact, mixed use developments within 400-800 metres, or a five to ten minute walk, around major public transport nodes and in designated locations along railway lines and strategic bus corridors should be promoted to reduce trip lengths and reliance on the private vehicle for commuter and education trips.

Actions

Council's prioritised way forward for land use - transport integration is outlined in Table 10.

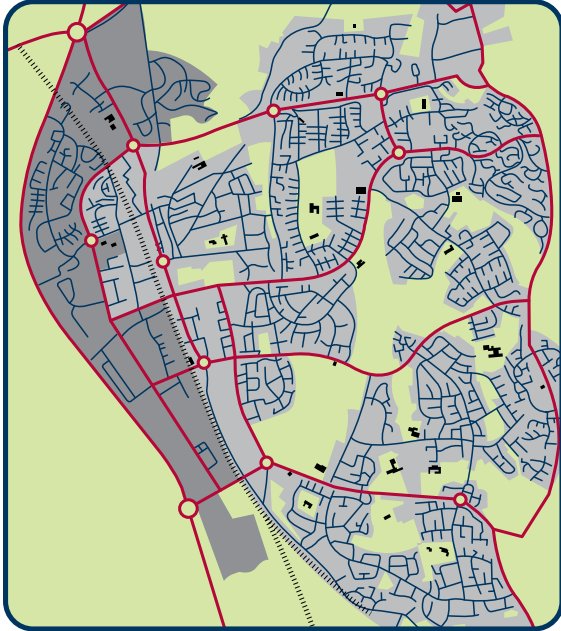


Figure 10: The 10 Minute Neighbourhood

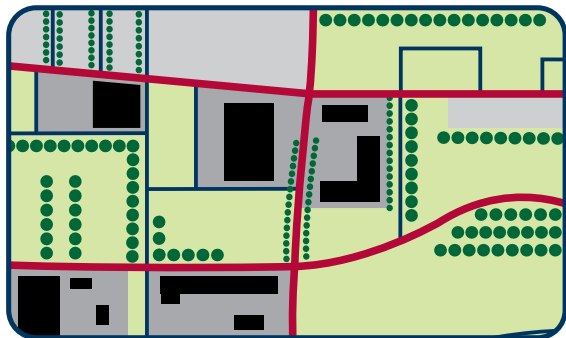
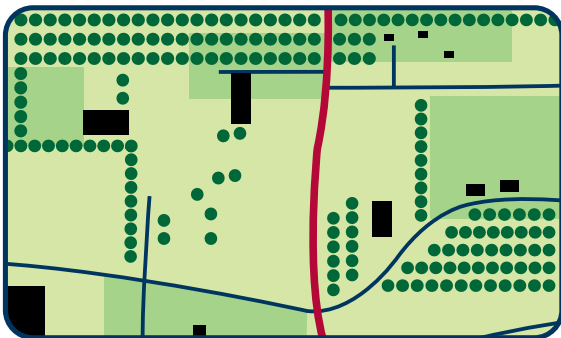
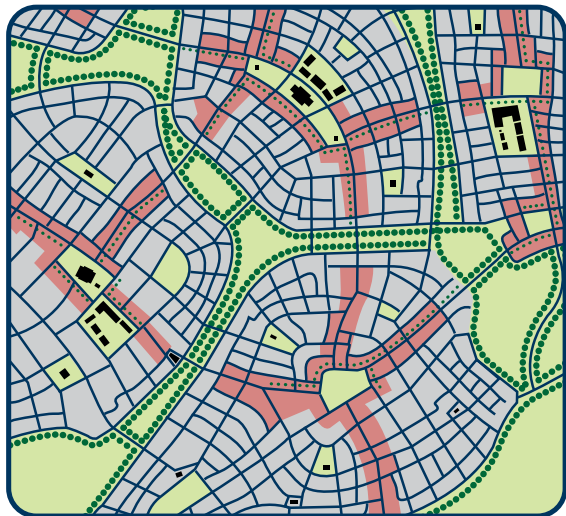
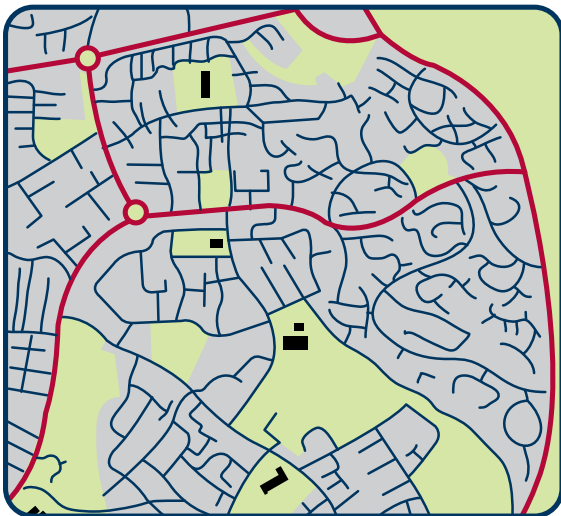
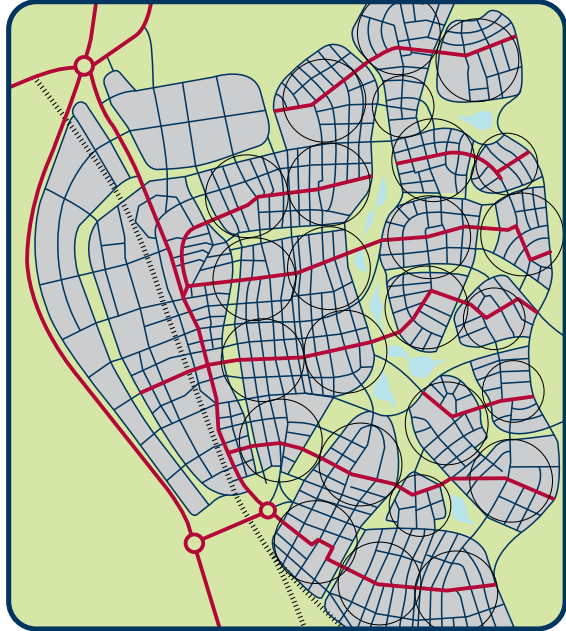


Figure 11: Complete Community Elements

Urban Sprawl



Complete Communities



The urban sprawl model lacks structure, centres and edges

Complete communities have distinct corridors, districts and neighbourhoods

Table 10: Land Use and Transport Integration Actions

Action	Policy Focus			Timing
	Complete Communities	Strong Activity Centres	Increased Density	
LU1: Support the continued application of the SEQ Regional Plan's 'urban footprint' (urban growth boundary) to limit urban sprawl and protect natural landscapes and rural areas with agricultural value.	✓	✓	✓	○
LU2: Preserve land required for strategic transport corridors to protect options identified in iGO and for the use of future generations.	✓	✓	✓	○
LU3: Advocate the <i>Complete Communities</i> urban model (the '10 minute neighbourhood' concept) to support the early provision of public transport services, and encourage walking and cycling for local trips, in the greenfield growth areas such as Springfield Lakes, Spring Mountain, Ripley, South Ripley, Deebing Heights, Brassal (north-west), Rosewood, Thagoona and Walloon.	✓	✓	✓	○
LU4: Promote compact, mixed use developments within 400-800 metres of the following major public transport nodes: <ul style="list-style-type: none"> Ipswich Railway Station East Ipswich Railway Station Booval Railway Station Bundamba Railway Station (northern side) Ebbw Vale Railway Station (southern side) Riverview Railway Station Redbank Railway Station (southern side) Goodna Railway Station (outside floodplain on southern side) Rosewood Railway Station Walloon Railway Station Springfield Railway Station Springfield Central Railway Station School Road Redbank Plains Railway Station (future) Ripley Town Centre line haul public transport node (future) Ripley East District Activity Centre line haul public transport node (future) Ripley West District Activity Centre line haul public transport node (future) Yamanto District Activity Centre line haul public transport node (future) South Ipswich/ University line haul public transport node (future) West Ipswich line haul public transport node (future) 	✓	✓	✓	○
LU5: Support higher density living along the following key public transport corridors (subject to detailed planning analysis): <ul style="list-style-type: none"> Ipswich Central to Springfield Central strategic bus corridor; Brassall to Yamanto strategic bus corridor, including extension to Flinders View/Raceview; and Goodna to Redbank Plains strategic bus corridor. 	✓			○
LU6: Apply quality urban design principles to make public spaces attractive to users and prioritise sustainable forms of transport over the private vehicle		✓		○
LU7: Consider and plan for all transport modes in Council's capital works and strategic land use planning projects.	✓	✓	✓	○
LU8: Promote development in areas where existing or future transport systems can sustainably accommodate travel needs.	✓	✓	✓	○

Table 10 (cont): Land Use and Transport Integration Actions

Action	Policy Focus			Timing
	Complete Communities	Strong Activity Centres	Increased Density	
LU9: Conduct a review of the <i>Local Government Infrastructure Plan</i> and <i>Priority Infrastructure Area</i> and implement the results to ensure sustainable and fiscally viable urban development across the city.	✓	✓	✓	S
LU10: Request access to and use the Queensland Government's spatial mapping and modelling tool called the Land Use and Public Transport Accessibility Index (LUPTAI). This tool seeks to measure how easy it is to access common destinations (i.e. health, education, employment etc.) by walking and/or public transport and will assist with making informed land use and transport decisions which encourage and promote sustainable transport outcomes.	✓			S
LU11: In the next revision of the Ipswich Planning Scheme, focus on promoting development which supports walking, cycling and use of public transport.	✓			S

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

S = Short term (within the next 5 years or by 250,000 population)

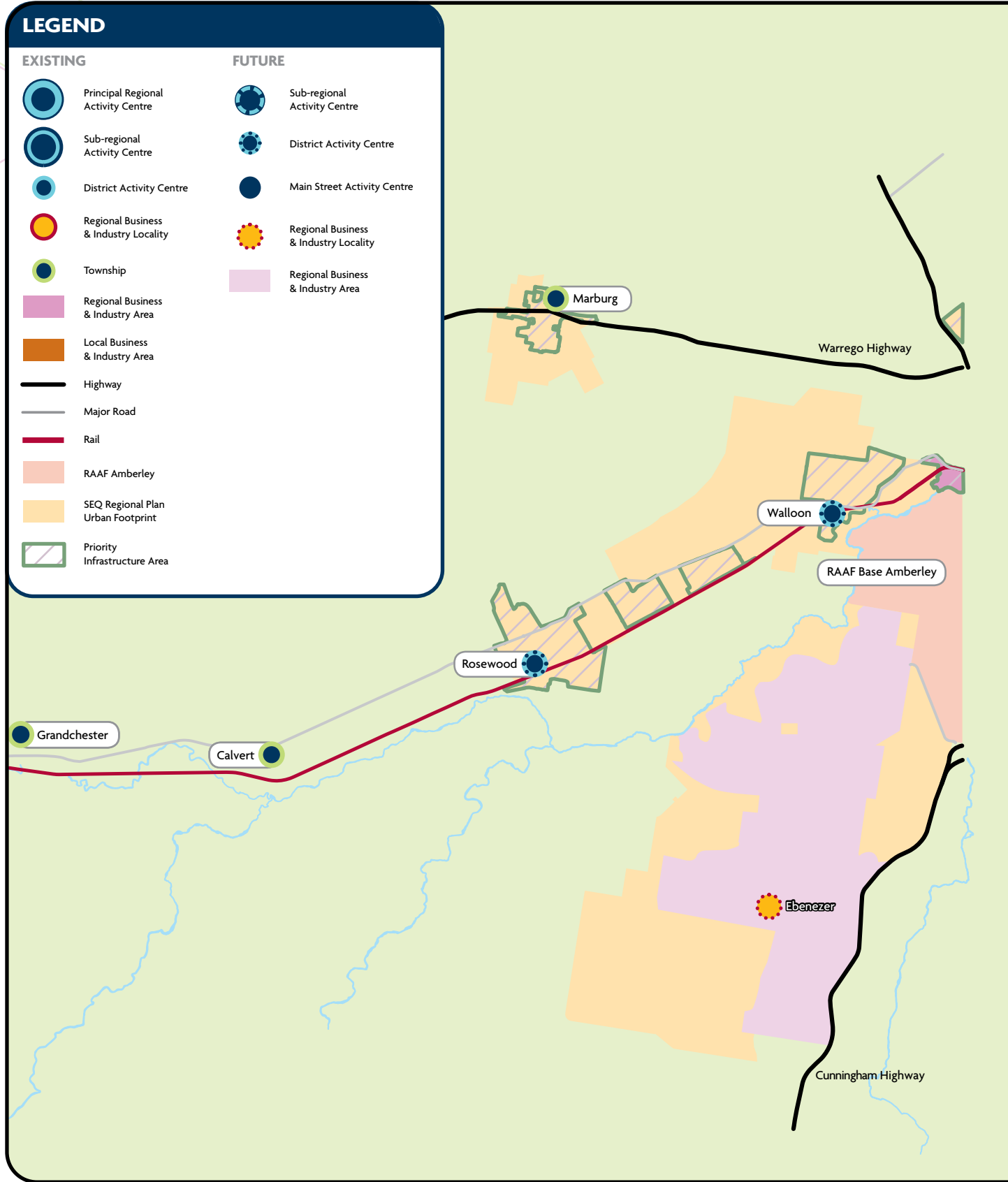
"If we're talking about transportation, the best thing a city can do is densify as quickly as it can. That needs to be said every time this issue comes up, because it's the only universal strategy that works."

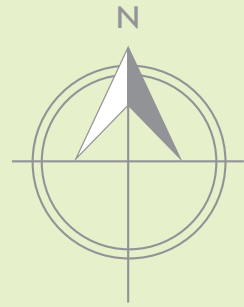
Alex Steffen
Sustainable futurist



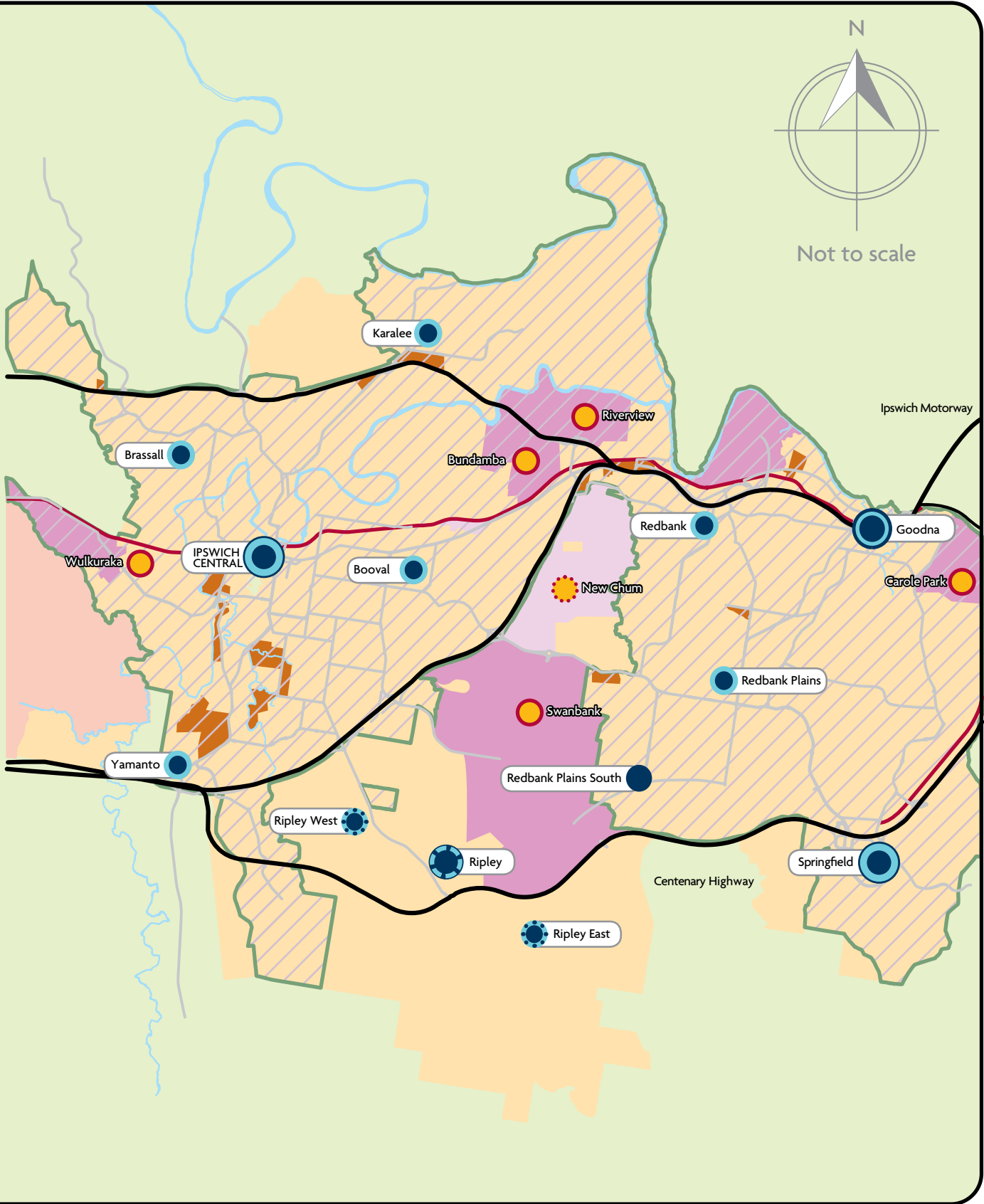


Strategic Land Use Map





Not to scale





PUBLIC TRANSPORT

Introduction

Public transport is an extremely space and energy efficient transport mode.

When done well, public transport can promote social inclusion, help focus and facilitate compact development and avoid the need for private motoring for many or most urban trips.

If Ipswich's transport future is to be sustainable, with a reduced reliance on the car, public transport usage will need to substantially increase. In particular, there will need to be a major mode shift from cars to public transport during peak hours with a focus on white collar commuting and education trips. These types of trips make up a significant portion of daily movements on the transport network and present opportunities for the provision of an efficient and sustainable public transport system.

About 6% of daily trips in Ipswich are currently by public transport – mostly by train. This equates to about 40,000 daily trips. iGO's target is for 11% of daily trips to be by public transport by the population horizon of 435,000 people. This equates to 165,000 daily trips on public transport in Ipswich - a 400% increase in public transport patronage.

For journeys to work in the major centres, the iGO public transport mode share has an even higher target, approaching 25% in the case of the Ipswich City Centre and more for the Springfield Town Centre. Achieving these targets will require considerable effort and development of additional public transport capacity. Significant changes to the existing public transport system are also required to make it more appealing and competitive with private vehicle travel and attract 'choice' riders.



J.J. Little & Co bus, Ipswich 1920s. Image courtesy Whitehead Studios, Picture Ipswich, Ipswich City Council

Existing Situation

The current public transport system in Ipswich is:

- Underutilised and has spare capacity (both rail and bus). The bus network in particular is operating at patronage levels significantly lower than in other areas of SEQ².
- Providing a basic level of service with the broadest coverage possible dominated by circuitous routes, low frequencies and long journey times that people with access to private transport do not consider using for their journeys to/from work or education facilities.
- Dominated by ‘captive’ riders who use the system because they do not have access to a car (i.e. youth and elderly) and/or are not time constrained.

Rail

The rail network in Ipswich includes two rail lines:

- **Ipswich/Rosewood Line**
 - 15 stations within the Ipswich local government area;
 - Higher frequencies during peak times in the peak direction (i.e. to Brisbane in the morning and to Ipswich in the evenings);
 - 30 minute frequencies off-peak and in the non-peak direction (i.e. to Ipswich in the mornings and to Brisbane in the evenings); and

- For the section of line between Ipswich and Rosewood there are 30 minute frequencies in the peak times and 60 minute frequencies in the off-peak regardless of direction.

- **Springfield Line**

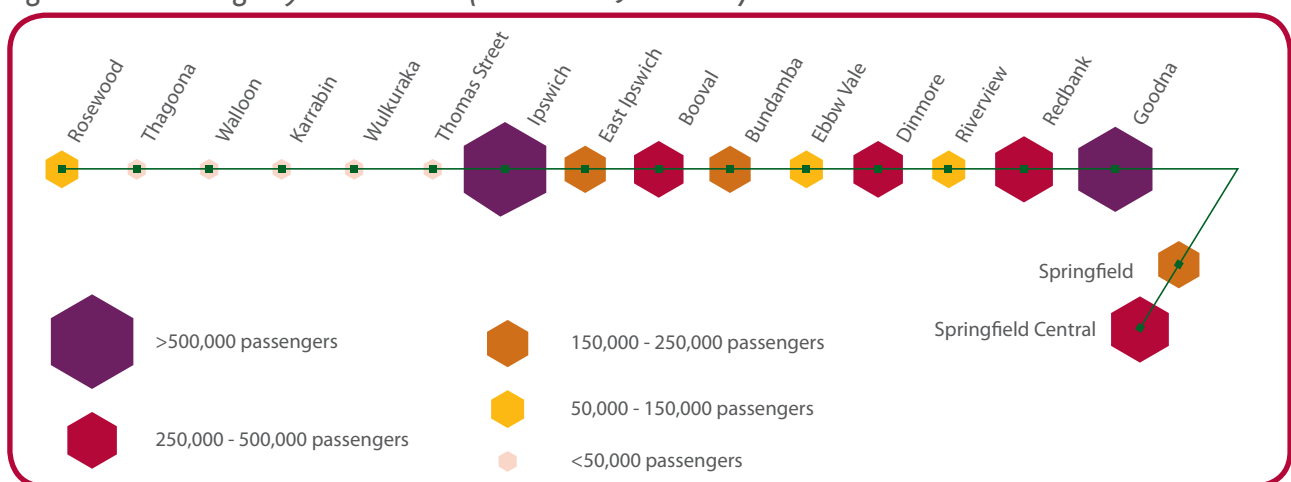
- 2 stations within the Ipswich local government area;
- 30 minute frequencies off-peak and in the non-peak direction;
- Higher frequencies to/from Brisbane during peak times.

These two rail lines make up a significant portion of the ‘choice’ riders using the public transport system in Ipswich and are used for mostly white collar commuter and education trips to/from Brisbane.

Rail also plays a role in the coverage network, but to a lesser extent than the bus network. The rail system is focused on connecting to/from the Brisbane Central Business District where travel to/from Brisbane via rail is a viable option due to costs of parking and travel times using a car.

As shown in Figure 12, Ipswich station has the highest patronage numbers followed by Goodna, Springfield, Redbank, Booval and Dinmore. Since the opening of the Springfield rail line, Springfield and Springfield Central stations are among the highest performing stations within Ipswich. By comparison, the railway stations between Ipswich and Rosewood have the lowest patronage on the rail network in Ipswich.

Figure 12: Patronage by Rail Station (Dec 2013 – June 2014)



Source: PSA Consulting, Australia

2. PSA Consulting: Ipswich Public Transport Research and Policy Paper: Final Report (2015)

In general, the rail track and corridor network in Queensland is very well maintained and rehabilitated to a much higher standard than that of other states such as New South Wales and Victoria.

Park 'n' Ride

Park 'n ride facilities are provided at a number of railway stations along the Ipswich/Rosewood and Springfield rail lines with major facilities at Dinmore and Springfield Central. Smaller parking areas are present at Rosewood, Thagoona, Walloon, Karrabin, East Ipswich, Booval, Bundamba, Ebbw Vale, Redbank, Goodna and Springfield stations.

These park 'n' ride facilities provide an opportunity for residents to travel to a railway station by car and use the train for part of their journey thus reducing congestion in the inner city areas and on major arterials, particularly during peak periods.

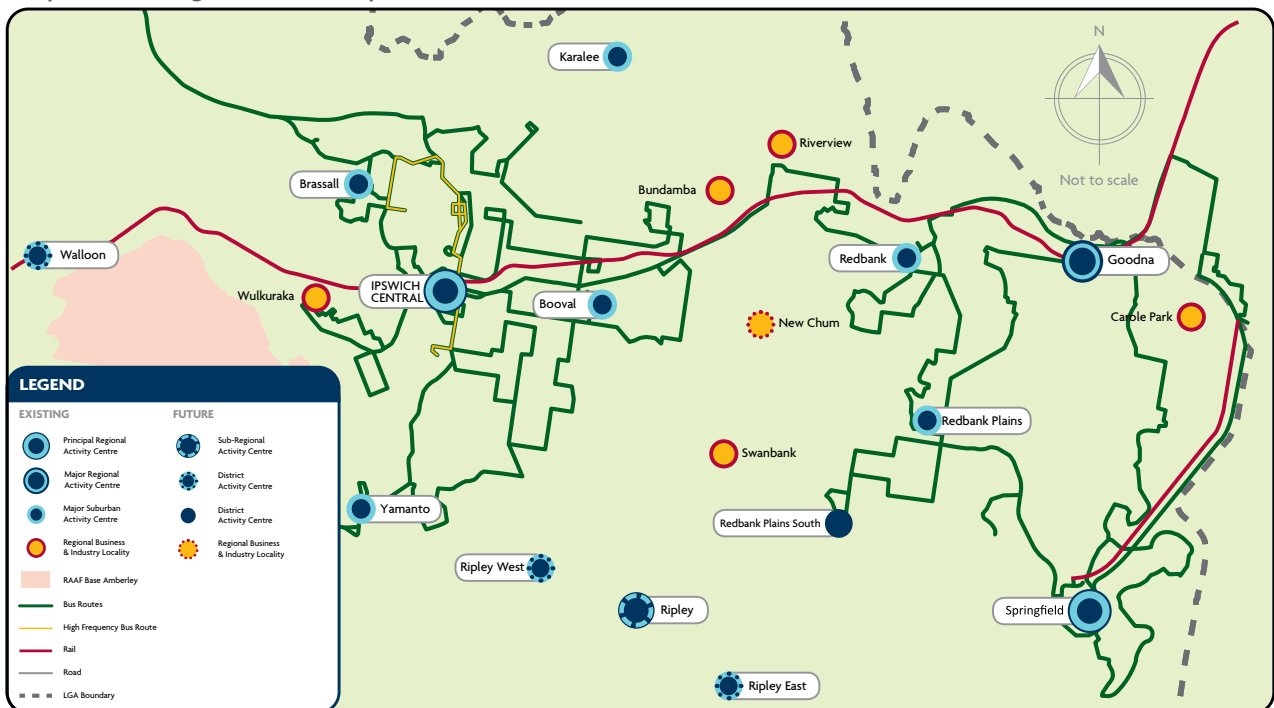
Bus


Ipswich has significantly lower bus patronage when compared to all other bus networks in SEQ. This is likely due to low population densities and because the bus network in Ipswich is predominantly focused on achieving maximum coverage to allow 'captive' riders, who have limited access to other means of transport, the opportunity to connect to employment and key services. However, this makes bus routes in Ipswich infrequent, long and circuitous and therefore unattractive to many potential users.

Whilst the continuation of coverage bus services are important for social justice reasons, they can come at the expense of high frequency, fast and direct bus routes that would be attractive to 'choice' riders, members of the community who have access to other modes of transport.

With the rail line running east-west through Ipswich, the bus routes generally travel north-south through suburbs. The exception is Route 500 which travels east-west servicing catchments not supported by railway stations. Further, many areas of the Ipswich urban area are not serviced by bus at all.

Map 2: Existing Public Transport Services





The bus network in Ipswich has a focus on the following activity centres:

- Bell Street and Riverlink Shopping Centre (within the Ipswich City Centre);
- Springfield Central Station and Orion Shopping Centre (within the Springfield Town Centre).
- Goodna, Redbank, Booval (activity centres with adjacent rail stations)

No urban bus routes connect directly from Ipswich to Brisbane, meaning that commuters travelling to and from Brisbane via public transport are transferring at various railway stations in Ipswich.

With the exception of one route, the bus services in Ipswich tend to operate with low frequencies, particularly during off-peak periods.

The highest performing bus route in Ipswich (Route 515) carries around 15% of the bus passengers in Ipswich and operates at 15 minute frequencies on weekdays. This route operates between the University of Southern Queensland Campus (in the south of the Ipswich City Centre) and Brassall Shopping Centre, stopping at the Ipswich Hospital, Ipswich CBD and Riverlink Shopping Centre.

Based on information sourced from the Queensland Government, only 35% of bus travel in Ipswich is for commuting with a greater passenger load experienced during off-peak periods. This indicates that the bus network is not used to capacity in the peak periods and highlights that the bus is not a choice transport option for

commuters in Ipswich. This is likely due to low frequencies, long journey times, relatively high fare structures, limited bus infrastructure and free parking provided at places of employment and rail station 'park 'n' rides'.

Overall, Ipswich has the fewest bus routes and services per year in SEQ. This indicates that the bus network in Ipswich could be considered at a minimum level of service. Opportunities exist to significantly expand the network and service frequencies to help stimulate patronage growth.

Demand Responsive Transport

The suburbs of Karalee, Barellan Point and Chuwar are characterised predominantly by large-lot, low density residential development (acreage living) and as such, provision of a regular bus service to these suburbs is currently considered financially unsustainable by the Queensland Government.

This area is now serviced by the 'FlexiLink' demand responsive service that consists of a system of taxis providing low-fare trips between private residences and nearby major destinations including train stations and shopping centres. The FlexiLink service needs to be booked in advance.

While not offering the same advantages as a typical bus route in terms of frequency, capacity, level of service etc., the benefits of this system have been identified as providing operationally effective, flexible, reliable and affordable public transport accessibility to residents in areas difficult to service by conventional means.



Community Transport

Community transport supplements formal public transport services and provides a service to members of the community who cannot use traditional public transport such as the elderly and residents with health issues.

There are a number of not-for-profit organisations in Ipswich that operate community based transport services. This includes Council's *City Heart Cabs Program* in which seniors and people with disabilities and their carers can travel via taxi to a nearby major shopping centre for a small fee.

School Bus

The Queensland Government subsidises bus services to many schools in Ipswich (mostly secondary schools). These services can be used by the general public but they are usually coverage services and are limited to one or two services before and after school times. Some private schools also operate their own bus services as part of their school program.

In order to meet the objectives of iGO, increasing the number of education trips made by school buses in Ipswich needs to be a key focus. A primary factor to achieving this objective will involve identifying and addressing the barriers to use.

Taxi

While not considered a formal public transport mode, taxis support the public transport system by providing passenger transport options within the city. There is currently 68 licenced taxi's operating in Ipswich, of which 15 are wheelchair accessible. Due to their cost, taxis are traditionally used for short to medium distance journeys or for occasional trips.

As noted previously, the taxi fleet is also currently used to supplement the public transport vehicle fleet for *FlexiLink* and *City Heart Cab* services.

'Greenfield' Development Areas

Ipswich has several current or planned 'greenfield' urban development areas (e.g. Ripley, Deebing Heights and Redbank Plains south) that are not currently serviced by any form of public transport.

There is often a delay in new residential areas between when the first residents arrive and when the population is of a sufficient size to support a viable public transport service. It is important that public transport services are provided within these areas as early as possible to encourage sustainable transport behaviours and reduce the need for these residents to rely on private vehicle transport and particularly to delay or avoid the purchase of a second car by households.

"In a quality city, a person should be able to live their entire life without a car and not feel deprived."

Paul Breford
Academic





Council's Role in Delivering Public Transport

The provision and operation of public transport services is a core responsibility of the Queensland Government and will continue to be into the future.

Council's current role in the delivery of public transport services across Ipswich are:

- Providing and maintaining bus stop infrastructure (seats, shelters, indented bus bays, litter bins, footpaths etc);
- Land use planning and development assessment;
- Subsidising community transport programs; and
- Advocating for public transport projects and initiatives.

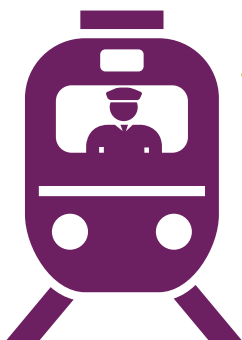
To meet the objectives of iGO and Council's strategic aspirations outlined in the *Advance Ipswich Plan*, Council will need to work closely with the Queensland Government and investigate the merits of funding and/or subsidising the public transport system in Ipswich in the future, particularly:

- Embellishments to existing bus routes through higher frequencies and lower fares that will make the route more competitive with the car;
- New high frequency/limited stop services along major corridors during peak hours that target commuter trips;
- New services to/from 'greenfield' development areas;
- Reprioritisation of some parts of the road network from cars to buses (e.g. transit lanes, bus queue jumps at intersections) to ensure buses using major corridors are not caught up in traffic congestion;
- Provision of high quality bus stop infrastructure (e.g. shelters, real time timetable information, free wireless internet etc); and
- Investment partnerships with the private sector to trial the operation of low emission/electric buses.

"To build communities that provide access to opportunity for all people, there must be quality transit options that connect people to jobs and resources. Great neighbourhoods require great public transportation."

Citizens Planning and Housing Association

Social organisation



Opportunities

There are a number of public transport opportunities that will assist with providing a sustainable transport future for Ipswich.

Existing Railway Line

The existing Ipswich/Rosewood and Springfield railway lines provide excellent public transport opportunities for Ipswich's transport future.

These include:

- Promoting compact mixed use developments around designated existing railway stations (e.g. Booval and Redbank) to reduce car reliance and increase existing patronage catchments;
- Designing future 'greenfield' development to promote access to/from the existing Walloon, Thagoona and Rosewood railway stations;
- Advocating for and implementing higher frequencies and more express services (even in non-peak hours and directions);
- Based on information sourced from the Queensland Government, without the current rolling stock limitation and the constraints to rail capacity in inner Brisbane, six minute frequencies could be achieved on the Ipswich/Rosewood Line in the peak direction (i.e. to Brisbane in the morning peak and to Ipswich in the evening peak) and 15 minute frequencies on both rail lines could be achieved in the non-peak direction (i.e. to Ipswich in the morning peak and to Brisbane in the evening peak).

Depending on the number of rail cars in service, this would result in a total between 2,250 and 4,500 additional passengers in an hour period. Any improvement to the rail service frequency and express services will attract more people to live in Ipswich City and also reduce travel times thus making rail services ultra-competitive against the private vehicle for Brisbane trips.

- Advocating for and implementing an "Automatic Train Protection" (ATP) system on the SEQ passenger rail network to prevent collisions through driver error or vehicle malfunction.

This will allow trains to travel safely with much shorter 'headways' (distance between trains travelling in the same direction) and thus increase capacity, increase speeds and allow Translink to push harder in their timetabling (e.g. higher frequencies). It is understood a quality ATP system for the SEQ passenger rail network will be costly but would help alleviate current bottlenecks in the system in central Brisbane and delay or prevent the need for some sections of track duplication works;

- Transferring freight movements from the Ipswich/Rosewood rail line to the proposed Southern Freight Rail Corridor (part of the Inland Rail System) will also free up capacity for passenger trains; and
- Improving railway station platform heights to allow for quicker boarding of trains and thus reducing travel times.

Ipswich to Springfield Public Transport Corridor

The Queensland Government has planned, and is preserving, the *Ipswich to Springfield Public Transport Corridor* which is a line haul public transport corridor between the Ipswich City Centre and Springfield Town Centre via Yamanto, Deebing Heights, Ripley and Redbank Plains (refer Map 3).

Further information: www.tmr.qld.gov.au

The future mode (bus, light rail, heavy rail) along this corridor will be determined through subsequent studies. However, the preserved corridor alignment can cater for the physical requirements of a heavy rail system.

It is likely that the completion of the entire Ipswich to Springfield Public Transport Corridor will not be delivered until after the iGO horizon (i.e. with a city population > 435,000 people). However, an extension of the rail line from Springfield to Redbank Plains (to create new railway stations at Keidges Road and School Road) in the short term is essential to the sustainable development of the eastern suburb growth areas of the city.

Light Rail

As mentioned, the future mode along the Ipswich to Springfield Public Transport Corridor between the Ipswich City Centre and Redbank Plains is yet to be determined.

The *Ipswich Regional Centre Strategy* (jointly developed by the Queensland Government and Council in 2008 as a masterplan for the economic and civic revitalisation of the Ipswich City Centre) identified an opportunity to use light rail to link a redeveloped mixed use 'Railway Workshop precinct' in the north to the University of Southern Queensland Campus in the south.

Further information:

www.ipswichcentrestrategy.com.au

Opportunities exist to extend the Ipswich City Centre light rail further south to Churchill, Yamanto or even to Deebing Heights and Ripley.

Using light rail to service these areas instead of heavy rail would focus more trips to/from the Ipswich City Centre (rather than to/from Brisbane) and could possibly connect more key commercial, retail, medical and cultural nodes in Ipswich. Further, when compared to heavy rail, light rail has the potential to increase property values and promote more adjacent land uses to transition to compact mixed use developments.

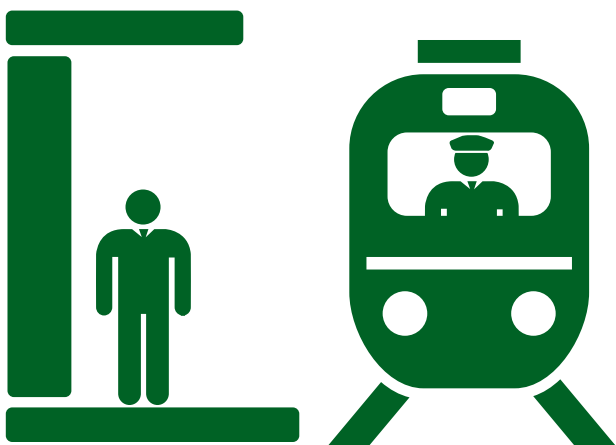
Although the delivery timing of either mode option is likely to be outside the iGO horizon, it is prudent that route planning, feasibility investigations and business case development be undertaken to identify the preferred mode and ensure the suitability of the corridor currently identified. Land use patterns in proximity to the corridor can also be determined within the iGO horizon to support the future provision of the infrastructure.

Strategic Bus Corridors

Strategic bus corridors are movement corridors that link key activity centres and give priority to bus services (e.g. busways or on-road bus only lanes). These types of corridors are the main public transport movement corridors for areas not serviced by rail and, for Ipswich, will focus on:

- The north-south movement between the Ipswich City Centre and the Ripley Valley for the short to medium term, with possible extensions to Brassall and Yamanto; and
- The east-west movements between the Ipswich City Centre and the Springfield Town Centre via Redbank Plains with a possible extension to Goodna.

By re-prioritising road space, strategic bus corridors can ensure bus services achieve higher frequencies, greater reliability, visibility and shorter travel times. These are all factors that are essential to making bus services more competitive with cars and attracting 'choice' riders. In order to reprioritise existing road space, it is likely that there will be reduced or restricted road capacity for general traffic at some locations, particularly at intersections.



High Frequency Bus Services

Council's land-use planning paradigm for a 'City of Centres' provides good opportunities to provide quality, direct and frequent public transport connections within Ipswich by providing high frequency bus routes between:

- Principal activity centres at Ipswich Central and Springfield Central;
- Major activity centres at Goodna and Ripley; and
- District activity centres at Booval, Brassall, Karalee, Redbank, Redbank Plains, Ripley East, Ripley West, Rosewood, Walloon and Yamanto.

There are opportunities to brand these high frequency bus routes to distinguish them from regular bus coverage services (e.g. similar to the Brisbane 'BUZ', 'Bullet', 'Rocket' and 'CityGlider' services) and in turn, encourage more patronage by 'choice' riders.

Some of the high frequency bus services will also act as a high quality interim transport service prior to the extension of the rail line to Redbank Plains and the Ripley Valley in the longer term.

Feeder Bus Services

Local bus routes do not need to go all the way to the core of the Ipswich City Centre and the Springfield Town Centre. By terminating at a bus interchange or railway station, the length of the journey can be significantly reduced and the need for expanding Park 'n' Ride facilities reduced. Savings from this can go into upgrading service frequency (reducing average wait time) and increasing span of operating hours (directly increasing personal mobility).

However, bus feeder networks in SEQ are generally poor as it is very difficult to get people to use buses to travel to and from key rail and bus stations. As such, there are significant opportunities for improvements in this regard, particularly when it comes to bus frequency and timetabling, reliability, travel time, cost and transfer convenience.

Market Demand

Significant increases in population and employment numbers forecast for Ipswich provide substantial opportunities for improved public transport provision through "market demand". Market demand makes the provision of quality public transport more economically viable.

Greenfield Communities

In new and emerging 'greenfield' communities such as Ripley, Deebing Heights and Walloon, there is a unique opportunity to develop sustainable transport habits of residents by providing public transport from an early stage.

"Public transport faces increasingly intense conflict between patronage levels and coverage goals."

Jarrett Walker

International public transport consultant



Special Events

The use of public transport is conducive for special events that attract moderate to large audiences (e.g. sporting events, festivals, concerts and conferences). The success of high public transport patronage when attending events at Suncorp Stadium is an example where the cost of public transport is factored into the ticket pricing. Similar protocols will need to be implemented for special events in Ipswich in the future.

New Technology

Opportunities exist to embrace new and sustainable technology for public transport services including:

- Emerging battery technology will see electric buses (i.e. buses propelled by electric motors with low exhaust and noise emissions) being able to recharge quickly (< 15 minute turnaround);
- 'Interim' bus services between Ripley and the Ipswich City Centre and Springfield Town Centre could be trialled using quick charge electric buses which are jointly funded between the public and private sectors through an "innovation partnership"; and
- Smart phone applications ("apps") that provide real time transit information to patrons as well as emerging initiatives such as Uber and other ride share programs that allow consumers to submit a trip request which is then routed to drivers who use their own cars.

'One Percenters'

There are opportunities for a number of relatively minor improvements to the public transport system that would assist to encourage more public transport usage (dubbed 'one percenters'). These include but are not limited to the following elements:

- Adequate conveniences for patrons at railway stations and major bus interchanges. This includes:
 - Safe, clean, well located and signed toilets (mandatory at all stations);
 - Shelter, seating and bins;
 - Facilities selling beverages and snacks (e.g. vending machines, cafés, coffee stalls/vans);
 - Free, high speed wireless internet service (wifi); and
 - Lighting and active CCTV surveillance;

- All railway stations and major bus interchanges are staffed for ticketing, customer information and security purposes;
- Installation of real time display devices at railway stations and bus stops on HFP routes for customer information purposes;
- Improvements to active transport (walking and cycling) facilities to, from and at railway stations and major bus interchanges;
- As part of a measured public transport fare review, the following elements could be introduced/reintroduced:
 - A logical, easy to understand and equitable fare structure;
 - Weekly, monthly and yearly ticketing options
 - Fare capping (e.g. maximum charge of \$60 per week); and
 - Concession fares (e.g. for people with low incomes).
- 'Catch Public Transport' publicity days where public transport services are offered free (or at minimal cost) for a day (or number of days) to attract new patrons; and
- Financial and off-set incentives to organisations with a large white collar workforce to encourage their staff to use public transport to commute to and from work. This includes the development and implementation of worksite 'Green Travel Plans'.



Challenges

Ipswich has a number of challenges for quality public transport as outlined below.

Industrial Areas

Ipswich has numerous existing, emerging and planned industrial areas across the city that underpin Ipswich's economy and will continue to drive job growth into the future. However, these industrial areas will be difficult to service with viable public transport services due to their large scale nature and workforce start and finish times.

However, it is noted that industrial areas such as Redbank, Bundamba and Riverview are in proximity to existing railway stations.

Large Lot Residential Areas

Ipswich contains a number of areas with predominantly large lot residential land uses such as Karalee, Chuwar, Pine Mountain and Karrabin. Although acreage living is a lifestyle choice for those residents, these areas are difficult to viably service with a meaningful public transport system other than with demand responsive and school bus services.



Certain Trip Types

There are certain trip types that, for a number of reasons, are considered impractical and not conducive to travel using public transport. These trips include:

- Some retail trips (grocery, bulky goods and hardware shopping)
- Blue collar construction trade trips (e.g. carpenters, plumbers, electricians)
- Some recreation trips (e.g. to/from children's organised sports)
- Infant day care/kindergarten/preparatory school trips;
- Some medical trips (e.g. doctor, hospital)
- Moderate to long inter-city trips (e.g. Toowoomba, Gold Coast, Sunshine Coast)
- Shift work commuter trips (e.g. nursing, industrial, cleaning)
- Freight /goods delivery trips; and (e.g. trucks, couriers); and
- Brisbane Airport trips (e.g. large family and lots of luggage).



Servicing Multiple Growth Fronts

Along with infill development in traditional suburbs, Ipswich has numerous residential growth fronts. These range from Springfield Lakes, Augustine Heights, Bellbird Park, Redbank Plains and Collingwood Park in the east, Ripley and Deebing Heights in the south and Brassall, Wulkuraka, Walloon and Rosewood in the north and west.

There is sufficient housing market appetite for all of these areas to develop at or near the same time. Along with the development of the activity centres and regional business and industry areas across the city, these multiple growth fronts will be difficult to viably service with meaningful public transport services all at the same time.

This is why development is being supported around existing public transport infrastructure where possible (e.g. at existing railway stations at Rosewood, Thagoona and Walloon).

Rail Station Platforms

The platforms at railway stations need to be at the same level as trains to improve ease of boarding and alighting. At many stations this is not the case.

Park 'n' Ride Facilities

Although reasonable amounts of parking spaces need to be made available at some designated railway stations (such as at Dinmore and Karrabin) and the future planned stations at Redbank Plains (Keidges Road) and Deebing Heights, it is not financially sustainable to keep on expanding parking as entire residential streets and even suburbs will become car parks. The bottom line is that park 'n' ride facilities only makes sense to support communities where residential density does not properly support buses.

Further, the community cannot afford the high cost of 'free' park 'n' ride facilities. For example, millions of dollars of public money was spent around Springfield Central railway station in 2013 to create approximately 480 parking spaces for rail patrons. That amount of parking only generates enough patrons to partially fill one six-carriage train.

As such, constructing more and more parking spaces around railway stations that can be readily serviced by HFP and feeder buses does not make economic sense. This is particularly so in principal and major activity centres where 'free' at-grade car parks are not the highest and best use for valuable land. Charging for the use of park 'n' ride facilities is necessary where car park demand exceeds space available.

"One of the key drivers of low mode share of public transport in Australia is the low population densities of Australian cities."

Meeting the Funding
Challenges of Public Transport
Tourism and Transport Forum



Policy Focus

To achieve future public transport mode share targets in Ipswich there needs to be a rethinking and reorganisation of the public transport system in SEQ to create improvements that advantage not only Brisbane but also the entire region.

This needs to include the creation of strong ties and partnerships between relevant government authorities and a major review of the public transport network and fare structures with a policy focus on the following elements:

Attracting 'Choice' Riders

The public transport system needs to attract a greater number of 'choice' riders (particularly commuter and education trips during peak hours) through the provision of better services via shorter journeys and wait times and affordable fare structures.

Connecting Key Activity Centres

The importance of providing connections to and from activity centres that provide access to key goods and services as well as social interaction is highlighted by results received from patronage data and current route patterns. Therefore the policy focus should be on the provision of quality public transport services to and from activity centres (existing, emerging and planned).

Servicing Greenfield Areas

New 'greenfield' development areas such as Redbank Plains south, Ripley and Deebing Heights will require fast mass transit connections to and from the Ipswich City Centre, the Springfield Town Centre and other activity centres by the iGO horizon. The issue facing the Queensland Government and Council is how to best service these emerging areas with viable and meaningful public transport services in the interim to ensure that sustainable travel patterns are developed early in the development cycle.

Enhancing Existing Systems

The Ipswich/Rosewood and Springfield railway lines are important existing elements of the public transport network for Ipswich. Policy focus should be on enhancing opportunities on the current rail system to achieve mass transit goals.

Accessibility

The appropriate use of park 'n' ride facilities, in combination with the way patrons access public transport is crucial in sustainably improving the public transport system.

This includes physical accessibility to, from and at public transport nodes as well as accessibility to quality travel and passenger information services.

Actions

With regards to the future public transport system in Ipswich, Council's prioritised way forward is outlined in Map 3 and Table 11.



Map 3: Strategic Public Transport Corridor Map



Strategic Public Transport Corridor Map



LEGEND

EXISTING

- Principal Regional Activity Centre
- Sub-regional Activity Centre
- District Activity Centre
- Regional Business & Industry Locality
- Road
- Rail
- City/Town Centres

FUTURE

- Sub-regional Activity Centre
- District Activity Centre
- Main Street Activity Centre
- Regional Business & Industry Locality
- Strategic Bus Corridor Bus Priority
- Ipswich to Springfield Public Transport Corridor (Line Haul Service)
- High Frequency Bus Service Connections
- Peak Hour Rail Commuter Bus Service Feeder Bus Services*
- Principal Park 'n' Ride Facility

*Exact route to be confirmed by Translink which may include Booval and Riverview stations as alternatives to Dinmore



Table 11: Public Transport Actions

Action	Policy Focus					Timing
	Attracting Choice Riders	Connecting Key Activity Centres	Servicing Greenfield Areas	Existing Rail System Enhancement	Accessibility	
PT1: Progressively upgrade infrastructure to make railway stations more accessible and reflective of the modal access priority for that station (e.g. feeder buses, cycling, walking, kiss 'n' ride, park 'n' ride).	✓	✓		✓	✓	O
PT2: Install shelters and other works at bus stops to ensure patrons are comfortable and safe and disability access standards are met. This includes the provision of WiFi internet access at key stops.	✓	✓			✓	O
PT3: Develop road and street networks in new communities that can accommodate bus routes and develop complementary urban design.	✓	✓			✓	O
PT4: Continue to provide the <i>City Heart Cabs</i> program to assist elderly people and people with a disability to travel to their local shopping centre.	✓				✓	O
PT5: Collaborate with community transport operators to foster innovation and provide information on their services to people with special needs.	✓	✓			✓	O
PT6: Preserve the planned footprint of the Ipswich to Springfield Public Transport Corridor.	✓	✓	✓			O
PT7: Develop a <i>Public Transport Advocacy and Action Plan</i> which outlines the details of Council's preferred short, medium and long term public transport system which can be used as an advocacy tool to inform future investment decisions. This plan is to support public transport access in existing developed areas of the city and the early provision of services in the emerging greenfield communities and include the following elements: <ul style="list-style-type: none"> • Strategic bus corridors (bus priority measures etc.); • Bus network (coverage, feeder, peak hour and all day services); • Demand responsive/flexible bus services; • Line haul network (heavy rail, light rail, busway); • Station/stop hierarchy, functionality and modal access priority (park 'n' ride, bus, walk-up); • Modal interchanges at key activity centres (e.g. Ipswich City Centre and Springfield Town Centre) and major transit nodes; • Taxi nodes; • Fare structures; and • Consumer information, public education and marketing initiatives. 	✓	✓	✓	✓		S
PT8: Establish a <i>Public Transport Advisory & Coordination Group</i> between the Queensland Government, Council and other stakeholders to assist with partnerships, the sharing of ideas, collaboration and prudent decision making based on local knowledge and input.	✓	✓	✓	✓	✓	S
PT9: Advocate for and implement the extension of the rail line from Springfield to Redbank Plains South including stations at Keidges Road (park 'n' ride) and School Road (walk/bus).	✓	✓	✓			S
PT10: Advocate for, undertake and implement a review of SEQ public transport fare structures including pricing, boundaries, concessional & periodical ticketing arrangements and fare capping.	✓	✓			✓	S
PT11: Advocate for, investigate and where relevant implement infrastructure enhancements to the SEQ passenger rail network to allow for increased capacity, speeds, service frequencies and reduced passenger travel and waiting (dwell) times. Initiatives include: <ul style="list-style-type: none"> • Localised geometry and alignment improvements; • Southern Freight Rail Corridor (Inland Rail Project); • Introduction of an Automatic Train Protection (ATP) System across the network; and • Enhancements to passenger boarding facilities. 	✓	✓		✓		S/M

Table 11 (cont): Public Transport Actions

Action	Policy Focus					Timing
	Attracting Choice Riders	Connecting Key Activity Centres	Servicing Greenfield Areas	Existing Rail System Enhancement	Accessibility	
PT12: Introduce high frequency peak hour bus services between the Ipswich City Centre and Ripley, Deebing Heights, Yamanto, Booval, Brassall and Redbank Plains. Over time these routes would become all day services.	✓	✓	✓	✓		S
PT13: Introduce high frequency peak hour bus services between the Springfield Town Centre and the surrounding residential growth areas such as Redbank Plains and Bellbird Park. These services would be hybrids of current Route 522 and Routes 524/526. Over time these routes would become high frequency all day services.	✓	✓	✓	✓		S
PT14: Introduce feeder bus services between Goodna and Redbank railway stations and Redbank Plains North and Collingwood Park.	✓	✓	✓			S
PT15: Introduce feeder bus services between Dinmore railway station and Raceview/ Flinders View and Karalee/Chuwar via the Cunningham and Warrego Highways.	✓	✓		✓		S
PT16: Construct a passenger setdown/pick up facility (kiss 'n' ride) at Springfield Lakes to service rail patrons accessing the nearby Springfield railway station (exact routing to be established by Translink).	✓	✓		✓	✓	S
PT17: Undertake route planning and feasibility investigations on the Ipswich City Centre - Yamanto - Ripley light rail mode option. If feasible, then: <ul style="list-style-type: none"> • Make a determination on the preferred future mode to be implemented along the Ipswich to Springfield Public Transport Corridor in the short term; • Further investigate the merits and feasibility of providing stations/nodes at West Ipswich and Churchill; and • Prepare a business case in the medium term. 	✓	✓	✓	✓		S
PT18: Identify the function, design (layout & levels) and access arrangements of future stations along the Ipswich to Springfield Public Transport Corridor to inform land use planning, urban design and development assessment decisions.	✓	✓	✓	✓	✓	S
PT19: Expand park 'n' ride facilities at Dinmore and Redbank stations.	✓			✓	✓	S
PT20: Establish public transport protocols for special events that will attract moderate to large audiences.	✓	✓	✓			M
PT21: Investigate the merits of Council funding or subsidising the public transport system in Ipswich in the future. Particularly: <ul style="list-style-type: none"> • Embellishments to existing bus routes through higher frequencies and lower fares; • New high frequency peak hour and all day services; and • Provision of bus priority infrastructure on the road network (TransitWays, bus queue jumps at intersections). 	✓	✓	✓	✓	✓	M
PT22: Construct the Ipswich City Centre to Ripley Town Centre section of the Ipswich to Springfield Public Transport Corridor.	✓	✓	✓	✓	✓	L
PT23: Expand the park 'n' ride facility at Karrabin station.	✓		✓	✓	✓	L

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

S = Short term (within the next 5 years or by 250,000 population)

M = Medium term (within the next 10 years or by 350,000 population)

L = Longer term (within the next 20 years or by 435,000 population)

ACTIVE TRANSPORT

Bradfield Bridge Ipswich CBD

Introduction

Active transport is an efficient, cost effective, healthy, sustainable and accessible form of transport which has many benefits for both the individual and the community.

Active transport refers to trips which rely primarily on human power to get from place to place. The most common forms of active transport are walking and cycling, though it also includes such modes as wheelchairs, skateboards, roller blades, mobility devices and scooters. Active transport is an inclusive form of transport accessible to all and provides a range of benefits to the individual as well as society, the economy and environment.

Connecting SEQ 2031 identifies that almost 50% of car trips are less than five kilometres long and a large portion of these trips are for work, shopping and education purposes. Five kilometres is an easy cycling distance for most people and distances less than two kilometres are considered an easy walking distance for the majority of people. This suggests that there are a large number of trips that could potentially be shifted to walking and cycling, provided certain barriers are removed.

A priority for the Queensland Government and Council is to ensure the provision of an active transport network which focuses on areas and connections that will get more people walking and cycling, more often. Targets include promoting people to use active transport within and between activity centres (employment, shopping, community services etc.), to access education facilities (tertiary and school) and to access public transport nodes/trunk routes.

The current lack of easily walkable urban environments created by low density urban development (i.e. length of trips), dependency on private vehicles and concerns regarding safety has reduced opportunities for incidental exercise and contributed to increased overall physical inactivity. In Queensland almost one in two adults are overweight or obese, and obesity in our children is increasing³. According to medical experts, exercising for 30 minutes each day can improve health overall and assist with weight loss. Providing a transport system that encourages people to combine regular exercise through walking or cycling with their daily travel requirements offers a great chance to improve community health levels and reduce pressure on the health care system.

Active transport is also a relatively low cost activity as it requires very little equipment and has low operating costs for the individual. Indeed, the *South East Queensland Principal Cycle Network Plan (2007, p9)* identifies that the cost of purchasing and maintaining a bicycle is around 1% of the cost of purchasing and maintaining a car. Additionally active transport modes are not impacted by fuel cost volatility. Therefore converting from a multi-vehicle household to a single vehicle household can offer significant savings for a family. The cost and space required to provide and maintain active transport infrastructure is also much lower than that required for similar infrastructure for the car.

Creating active transport friendly environments (particularly in activity centres) has been shown to increase the amenity, vitality and viability of these areas through improved business activities and community identity⁴. Pedestrians and cyclists in these environments are also more likely to positively engage with each other, resulting in reduced social isolation issues in the community. Additional benefits of active transport include reducing congestion on the roads, reducing noise pollution, greenhouse gas emissions and consumption of fossil fuels.

iGO will inform and guide the development of the active transport network in Ipswich to ensure that the use of this transport mode is maximised and the benefits are realised.

"We've been building cities as if the most important element is the car. We should be building like the most important element is the people."

Brent Toderian
Former chief planner, Vancouver, Canada



3. Queensland Health. *The Health of Queenslanders 2010: Third Report of the Chief Health Officer Queensland* (Brisbane: The State of Queensland, 2010).
4. Rodney Trolley, *Good for Business: The Benefits of Making Streets More Walking and Cycling Friendly* (South Australia: National Heart Foundation of Australia, 2011).



Context

Implementing an effective active transport network involves state government agencies, local governments, local communities and businesses all working in partnership. Guidance for the design and delivery of an active transport network is provided in such documents as the Queensland Government's *Queensland Cycle Strategy 2011-2021*, *Connecting SEQ 2031* and the *South East Queensland Principal Cycle Network Plan 2015*.

The *Queensland Cycle Strategy 2011-2021* identifies four priority areas for action to achieve the vision of, 'more cycling, more often on safe, direct and connected routes'. These priority areas include:

- Building safe, direct and connected cycle networks;
- Growing a cycling culture;
- Creating cycle-friendly communities; and
- Developing a cycling economy.

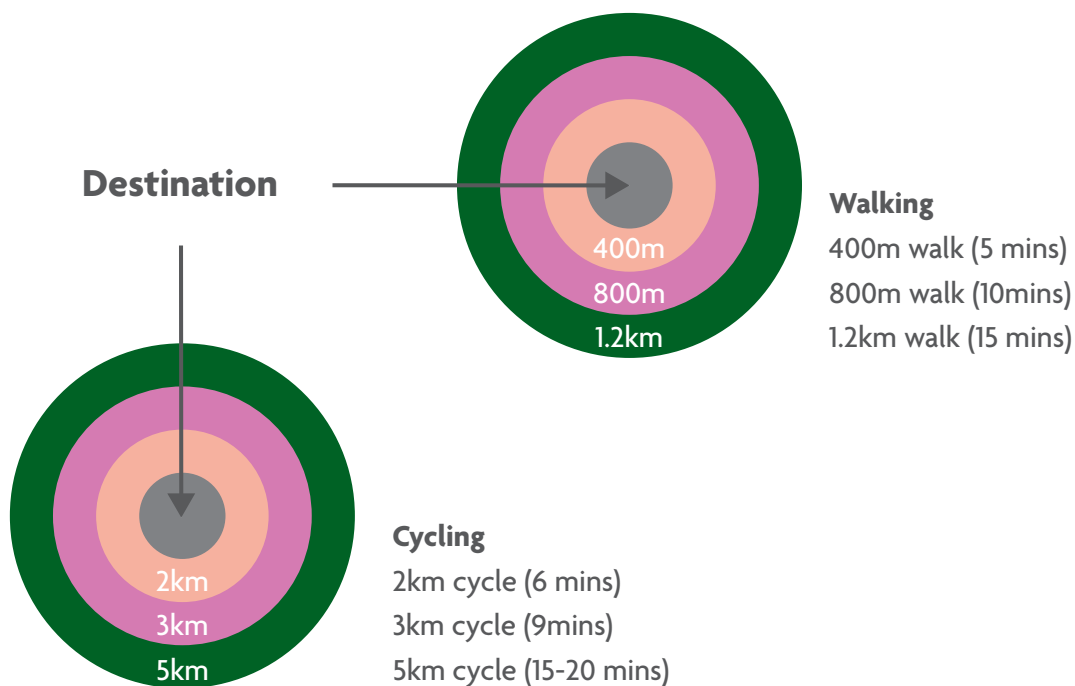
Connecting SEQ 2031 builds on these priorities and identifies regional priority actions and initiatives for active transport modes. This document also provides guidance on the types of user groups and trips to target.

For example, it identifies that a high proportion of trips for work, shopping, social, recreation and educational purposes are less than five kilometres. By focusing on this catchment (refer Figure 13) and completing active transport networks to/from these high activity areas, supported by aligned land use outcomes, it will maximise the opportunity for people to use an active transport mode more often.

The *South East Queensland Principal Cycle Network Plan 2015* flags the demand for, location and function of important cycle routes and missing links to inform planning, design and construction of cycle infrastructure (refer to Map 4). In many instances, further planning and design is required to determine the precise route and appropriate standard of cycling facility.

iGO and its subsequent actions (with assistance from the Queensland Government via the Cycle Network Local Government Grants Program) will form the important local link between these strategic documents and the type of active transport network which is delivered for Ipswich.

Figure 13: Typical Walking Catchment by Destination



Source: Department of Transport and Main Roads (2011), *Connecting SEQ 2031: An Integrated Regional Transport Plan for South East Queensland*

Existing Situation

There are currently about 1000 kilometres (km) of footpaths and bikeways in Ipswich. This includes approximately 65km of shared use paths, including dedicated off-road facilities such as the Brassall and Goodna Creek Bikeways. There are also approximately 86km of on-road cycle lanes.

Bikeways

The Brassall Bikeway is a high quality path that has been jointly funded by the Queensland Government and Ipswich City Council. The project has seven stages of which three (5km) have been completed and a fourth stage is currently under construction (2.8km). When fully complete, the Brassall Bikeway will link the Ipswich City Centre with the suburbs of North Ipswich, Brassall, Wulkuraka, Karrabin and Pine Mountain.

Evaluation of the existing Brassall Bikeway stages has identified that the facility carries some of the highest recorded volumes of pedestrians and cyclists in Ipswich (on average 343 people per day).

The Goodna Creek Bikeway is another initiative of Ipswich City Council that once completed will link the suburb of Redbank Plains with the Redbank Train Station via a high quality path through Collingwood Park and past Redbank Plaza.

High quality bicycle facilities are also currently available from Dinmore, east towards Brisbane in proximity to the Ipswich Motorway.

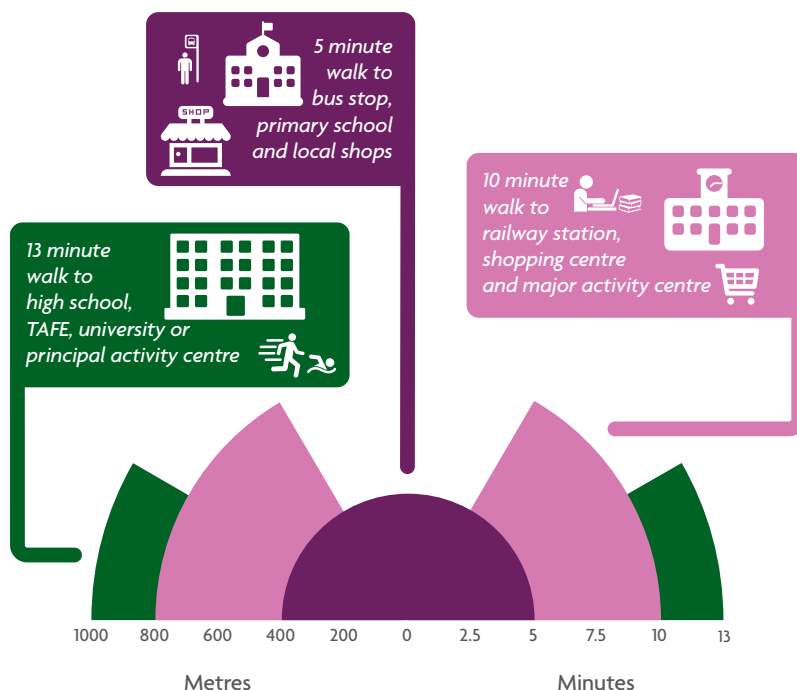
Pedestrians

Approximately 8% of trips in Ipswich are currently made by walking (as the single form of transport).

A typical trip that the majority of pedestrians are currently willing to walk is approximately 400 metres which can be completed in about five minutes. However, a pedestrian's willingness to walk a particular distance also often depends on the destination and the walking environment. Figure 14 identifies some typical destinations and the estimated distance and duration of time people might walk to get there.

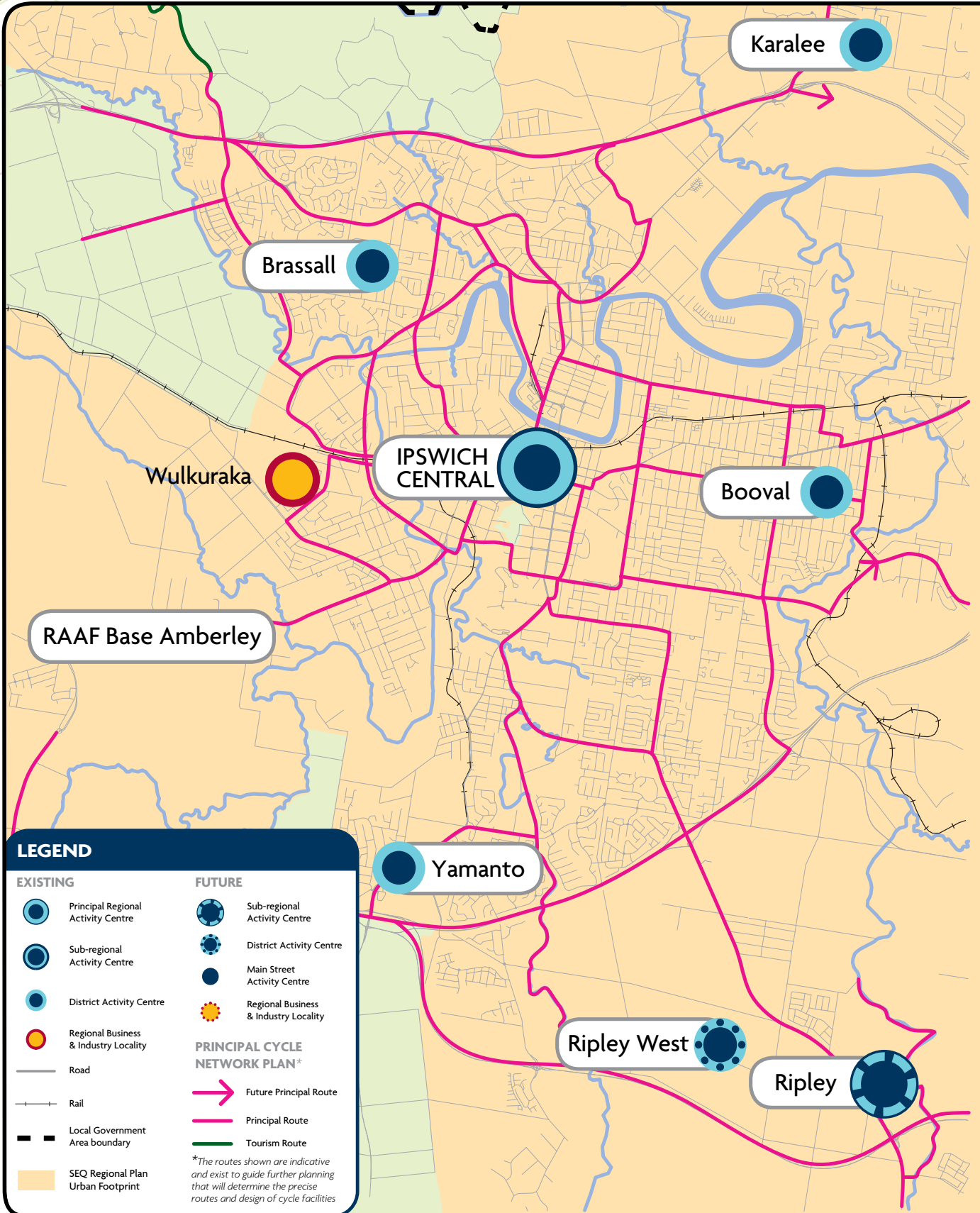
Due to Ipswich's current low density urban form and dispersed employment activity in parts of the city, many trips by walking are not considered feasible as they are outside the 'walkable catchment'. For the portion of trips which are within the 'walkable catchment', residents are affected and influenced by factors such as safety, climate, topography and barriers such as inadequate infrastructure, rivers, major roads and fences.

Figure 14: Typical Walking Catchment by Destination



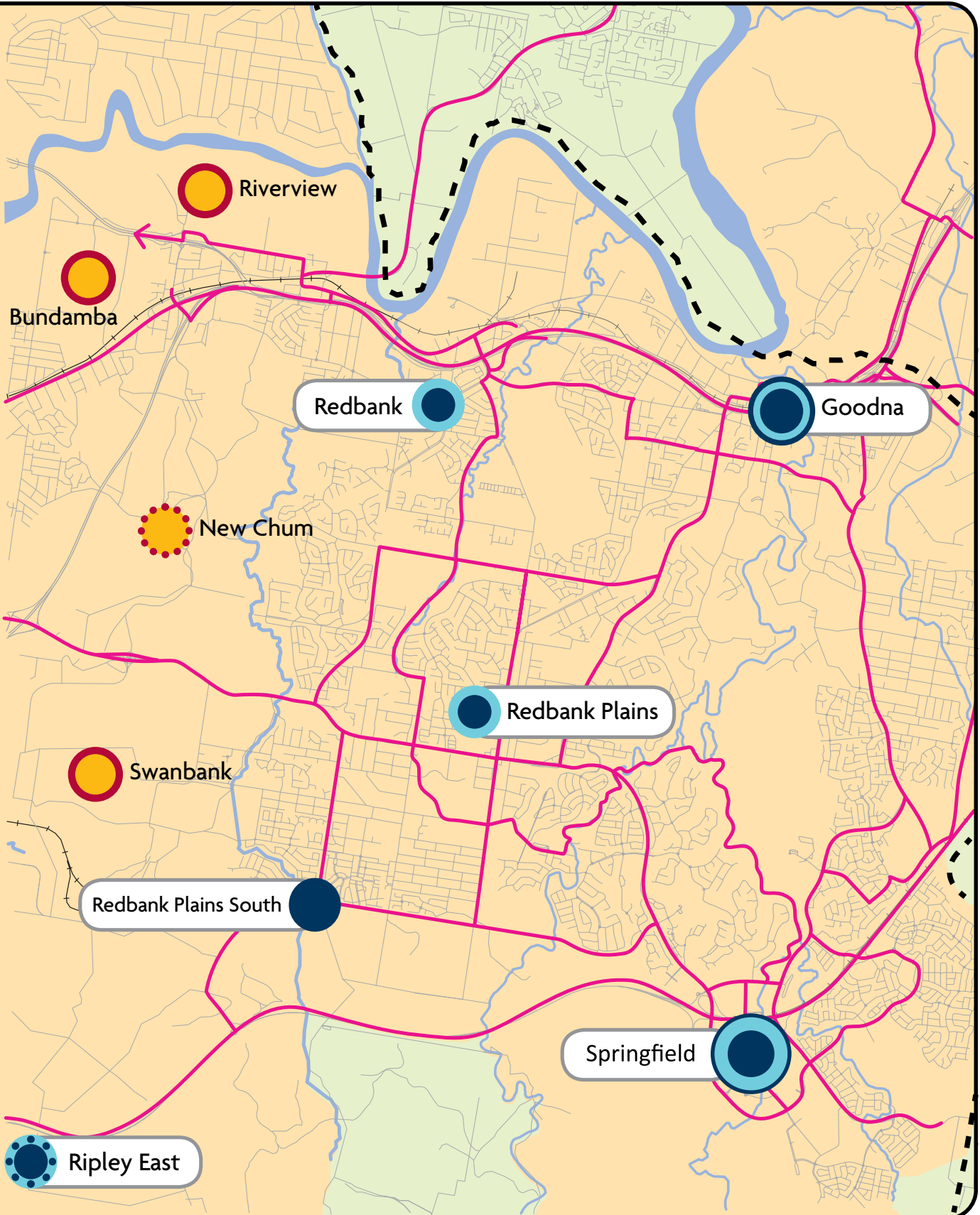


2015 SEQ Principal Cycle Network Plan Ipswich Map



Source: Department of Transport and Main Roads (2015) South East Queensland Principal Cycle Network Plan

NOTE: At the time of completing this document, the Queensland Government had yet to finalise and release the updated SEQ Principal Cycle Network Plan. However, the routes outlined on this map were endorsed by Council in December 2015



* All route alignments and configurations shown are subject to future investigation and corridor planning.

Cyclists

Less than 1% of trips in Ipswich are currently made by bicycle.

Similar to pedestrians, there are generally accepted distances that cyclists can travel in a given timeframe. At a comfortable cycling speed of 15km/hour, a trip of 5km becomes an easy 20 minute bicycle ride for most people. Having said this, there is also a wide range of ability between cyclists and the needs of different types of cyclists vary considerably. Figure 15 summarises different categories of cyclists, their characteristics and desired riding environments.

The *National Cycling Participation Survey* undertaken by the Australian Bicycle Council in 2011 found that 20% of Ipswich residents ride a bicycle during a typical week and 28% of Ipswich residents ride in a typical month. Of those who ride regularly, 84% of cyclists ride for recreation, 7% ride to commute and 6% for education purposes.

The *Queensland Cycle Strategy 2011-2021* identifies that the top six things people consider important when choosing a transport mode are the same between a cyclists and driver, as shown in Table 12. Therefore current bicycle uptake in Ipswich is considered to be impacted on by factors such as trip lengths greater than the 'cycle catchment', safety, climate, topography, inadequate infrastructure, barriers, ease of private vehicle use and parking supply.

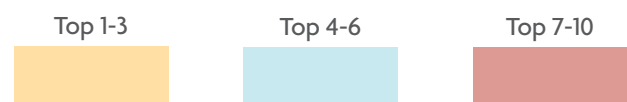
"When I see an adult on a bicycle, I do not despair for the human race."

H. G. Wells
Author



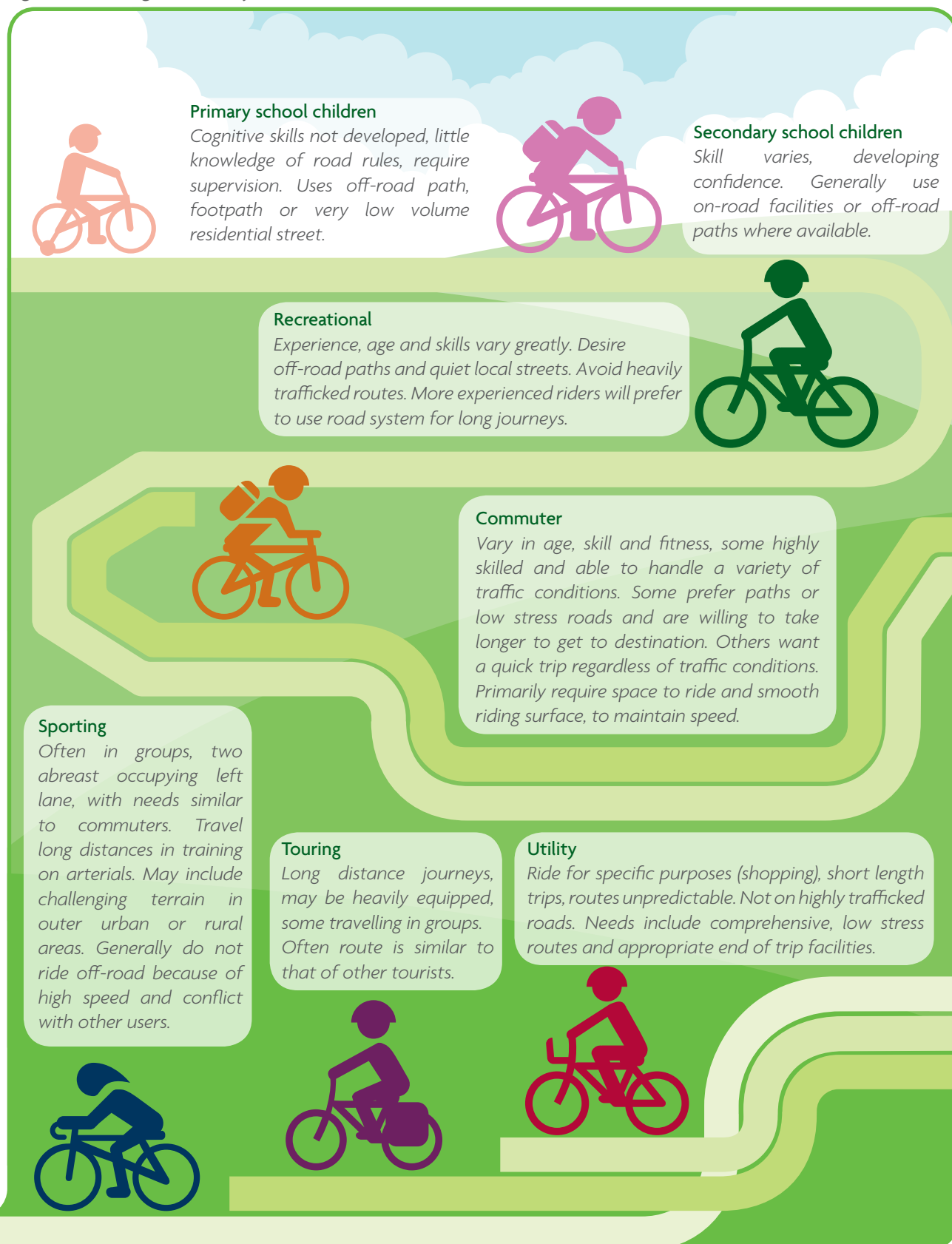
Table 12: Considerations for Motorists and Cyclist Travel Choice

Destination	Car Drivers	Cyclists
Reliability (consistent travelling time)	Top 1-3	Top 1-3
Able to leave anytime	Top 1-3	Top 1-3
Ease of access from home	Top 1-3	Top 1-3
Convenience	Top 4-6	Top 4-6
Flexibility	Top 4-6	Top 4-6
Able to go anywhere	Top 4-6	Top 4-6
Shortest travel time	Top 7-10	Top 7-10
No waiting time before travel	Top 7-10	Top 7-10
Protection from weather	Top 7-10	Top 7-10
Cost	Top 7-10	
Comfort	Top 7-10	Top 7-10
Familiarity		
Stress		Top 7-10
Safety		
Make the best use of travel time		



Source: Department of Transport and Main Roads (2010), Transport User Analysis of South East Queensland residents

Figure 15: Categories of Cyclists and their Characteristics



Source: Austroads (2014), Guide to Traffic Management Part 4: Network Management

Opportunities

Many opportunities exist in Ipswich to make active transport an attractive transport choice.

City of Centres

With Ipswich's land use planning focused on becoming a 'City of Centres', the increase in densities and land use mixes in and around each activity centre and key transport nodes will result in a large portion of the population living, working and recreating within walking and cycling catchments.

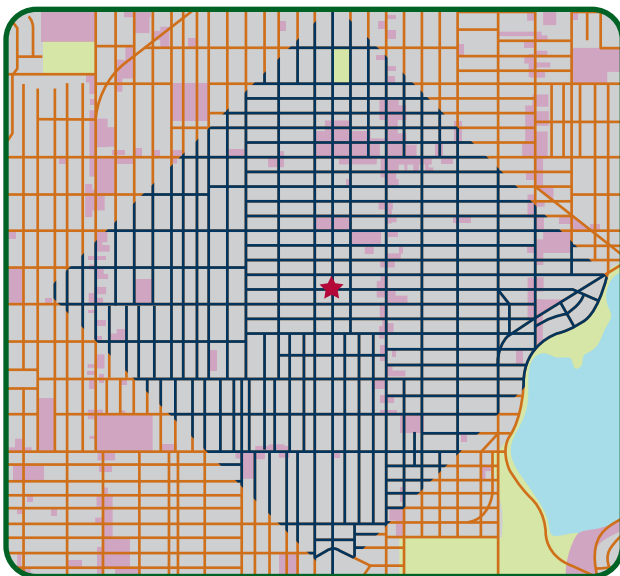
However, to fully grasp the opportunities this presents in regards to promoting an uptake to active transport, supportive active transport environments must be created. This involves combining density with high quality design (network and supporting infrastructure), increasing accessibility to public transport, promoting diversity of different land uses, facilitating destination accessibility, mitigating climatic factors where possible, supporting demand management initiatives (cost and availability of parking) and incorporating place making principles (street and public realm design)⁵.

Greenfield Development

According to *Connecting SEQ 2031*, almost 50% of new residential development in the region will be in new communities termed 'greenfield development's'. Ipswich contains a number of greenfield residential development areas such as Redbank Plains south, Springfield, Ripley, Deebing Heights, Walloon and Thagoona. As such, there is a significant opportunity to influence travel behaviours of many residents early on by ensuring these developments are designed appropriately around walkable and cycle catchments. Figure 16 shows an example of how much development design can impact the walkable catchment.

Greenfield development's also provide opportunities to trial and implement new and innovative sustainable transport ideas. This is due to the relatively low cost of construction when compared to retrofitting existing suburbs (i.e. relocating services and utilities, land acquisition etc).

Figure 16: Comparison of walking environments in a compact and low density neighbourhood



800m radius walk in a compact neighbourhood



800m radius walk in a sprawling suburb

Source: Udell, T. et al (2014), Does Density Matter? The Role of Density in Creating Walkable Neighbourhoods

5. Udell, T. Daley, M. Johnson, B. and Tolley, R. Does Density Matter? The Role of Density in Creating Walkable Neighbourhoods (Melbourne: National Heart Foundation of Australia, 2014).

Linear Open Space Corridors

Open space is a highly valued asset by Ipswich residents as it is a significant contributor to Ipswich's character, lifestyle, health, biodiversity and it helps to moderate urban heat island effects.

Ipswich has approximately 7,800 hectares of publicly accessible open space. Much of the network is located along linear corridors such as creeks and riparian areas and is further supplemented by drainage areas and other easements (rail, power, telecommunications etc.).

Ipswich's linear open space corridors provide an opportunity to link residential areas to activity centres and community hubs (schools, parks, sporting facilities, shops etc.) via safe, user friendly and attractive strategic active transport corridors.

They also provide opportunities to link together various activity centres in Ipswich, promote longer trip distances and in turn contribute towards activating these types of open spaces. It is also important to ensure that these strategic active transport corridors have high quality linkages with the on-road active transport network. This will increase catchment sizes and improve the overall active transport network connectivity.

Space

Walking and cycling require much smaller amounts of road space than private vehicles to move the same number of people (refer to Figure 17). When comparing space required for parking, the same can be concluded. This means there are opportunities to gain greater efficiencies on the existing road network by re-prioritising the mode that the street is designed for in certain areas. This has serious advantages when trying to retrofit existing suburbs and it also negates the need to find additional space and funding for new, safe and effective active transport networks in already built up areas.

Figure 17: Road Space Comparison



Source: Cycling Promotion Fund (2012), Cycling Promotion Fund

Challenges

Overcoming the challenges outlined below will be key to encouraging more trips via active transport.

Prioritising Active Transport

In order to accommodate the projected population growth to 435,000 people, Ipswich will need to significantly increase the percentage of trips made by walking and cycling. The percentage of daily trips made by walking needs to increase from just over 8% to 11% and cycling trips need to increase from less than 1% to 3%. This equates to an increase in daily active transport trips from the current 58,000 trips to 210,000 trips. This is more than a four-fold increase in daily trips made by these modes.

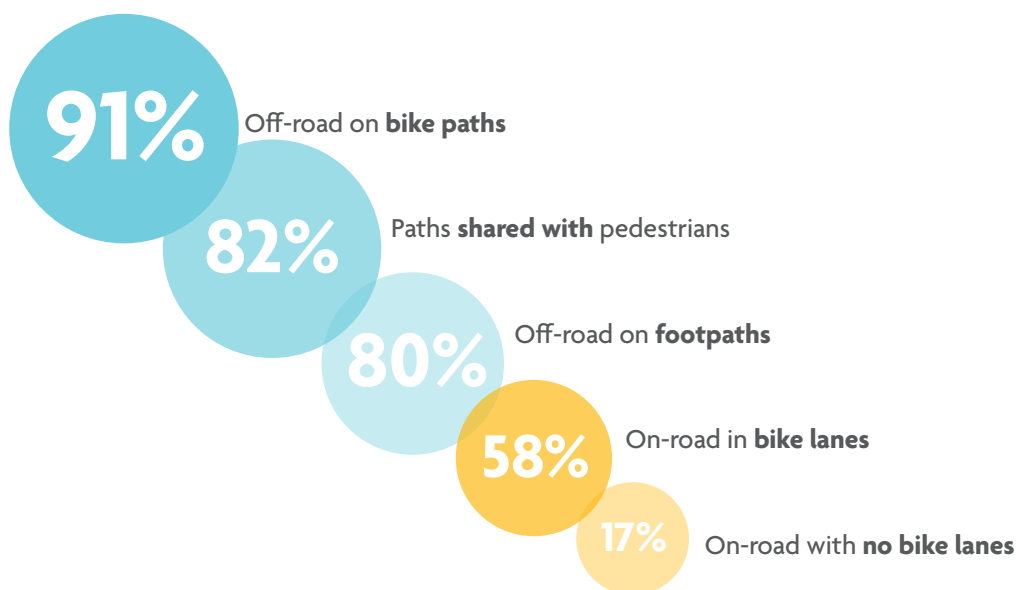
Encouraging and facilitating this number of active transport trips requires a change from the traditional private vehicle dominated culture of Ipswich to one where walking and cycling are a regular part of everyday life for most people. This presents challenges around community attitudes and behaviours, particularly toward the sharing and reprioritisation of road space. Addressing these challenges will involve infrastructure solutions, increased awareness of all road users, education, training and publicity.

Safety

The *Queensland Cycle Strategy 2011-2021* and *Connecting SEQ 2031* both identify safety as a major barrier to people walking and cycling, particularly where it requires the use of an on-road facility where cyclists (and sometimes pedestrians where there is no footpath) mix with general traffic (refer to Figure 18).

In order to increase the number of people walking and cycling across Ipswich, the safety of these vulnerable users must be maximised. This challenge can be addressed through education, infrastructure and design solutions. However, there is also evidence which indicates that the more cyclists there are, the greater the safety for all cyclists. This is the result of more motorists becoming cyclists themselves and also because motorists become more accustomed to seeing cyclists and adjust their behaviour accordingly⁶. This principle also applies to pedestrians and other vulnerable road users.

Figure 18: Situations Where Cyclists Report Feeling Safe



Source: Queensland Transport (2009), Sustainable Transport Survey

6. Tin Tin, S. Woodward, A. Thornley, S. Ameratunga, S. Regional variations in pedal cyclists injuries in New Zealand: Safety in numbers or risk is scarcity? (Auckland: University of Auckland and Public Health Association of Australia, 2011).

Topography and Climate

As previously mentioned, there are certain distances that people are generally willing to travel by walking or cycling and this often depends on the type of destination/purpose of trip. This distance also varies depending on the season, climate experienced during the trip and the topography being traversed.

The overall topography (hills, valleys) in Ipswich provides a challenge as it affects people's ability and desire to walk and cycle. Therefore it is an important factor to consider when deciding on and designing walking and cycling routes. This is especially so when there are members of the community who are young, inexperienced, have limited mobility and are reliant on wheelchairs or mobility scooters to get around. Physical barriers such as rivers, railway lines and large busy roads (highways, motorways) must also be addressed. This is often achieved through dedicated crossing facilities such as bridges or underpasses to allow active transport routes to be as safe, direct and as effortless as possible.

Ipswich's climate of hot and humid summer days and winter's with darker, colder evenings and mornings are not overly attractive in encouraging more people to walk and cycle. However, mild sunny days during winter and pleasant morning and evening temperatures during spring and autumn are conducive to the active travel modes.

While Council is unable to influence the weather, it can consider the local climate when deciding on, designing and implementing supportive active transport infrastructure. This involves the provision of drinking fountains at key locations along active transport routes, shading pathways (trees or constructed) and providing end of trip facilities (showers, lockers and change rooms) at destinations.

Achieving Connectivity

With the exception of pedestrian and cyclist specific projects (e.g. Brassall Bikeway), the delivery of pedestrian and cycle infrastructure and supporting infrastructure across the city has been somewhat ad hoc in the past. This has resulted in pathways and cycle routes to/from key destinations being disconnected and incomplete.

Ensuring that an appropriate active transport network is identified and protected will enable Council to identify and prioritise missing links and take a strategic, connected and targeted approach to delivery.





Policy Focus

To achieve iGO's future active transport mode share targets in Ipswich, partnerships between Council, the Queensland Government, schools, local communities and businesses need to be strengthened. Consequently, Council is supportive of the Queensland Government's strategic direction outlined in the *Queensland Cycle Strategy 2011-2021* and will take on the following policy focus with regards to active transport in Ipswich:

- Building Quality Active Transport Networks;
- Developing Supportive Active Transport Communities; and
- Growing an Active Transport Culture.

Building Quality Active Transport Networks

Communities with quality active transport networks (with the key features outlined in Figure 19) make walking and cycling a viable, convenient and enjoyable transport choice.

Achieving this policy focus involves the development of network plans and strategies, building connected networks and making walking and cycling part of all Council infrastructure projects.

Delivery of active transport infrastructure is to be guided by such documents as the *SEQ Principal Cycle Network Plan* and active transport strategies/programs developed by Council, with priority given to:

- Providing links which connect centres and key attractors (i.e. via protected cycletracks/veloways);
- Completing the active transport network within 5km of key centres to deliver a connected network to an immediate catchment;
- Ensuring safe and connected routes are provided to schools, universities and TAFEs, focusing on a 3km catchment around schools; and
- Putting active transport links in place to key public transport stations and stops.

Developing Supportive Active Transport Communities

Communities and suburbs must be designed or retrofitted to be 'cycleable' and 'walkable' so the built environment can support active transport networks and the community can reduce their reliance on the private vehicle. Achieving this policy focus involves:

- Integrating active transport into planning and development processes (increasing land use densities and mixes in key areas, prioritising active transport on road space etc.);
- Delivering a safe active transport network (lighting, segregation of users where required, intersection treatments, signal timing/priority, speed limits etc.);
- Designing streets and verges that enhance pedestrian and cyclist safety and give priority access to pedestrians and cyclists; and
- Including supportive active transport infrastructure (end-of-trip facilities, bicycle racks, drinking fountains, shade, seats and signage/way finding etc) at key locations in the network and at trip origins and destinations.

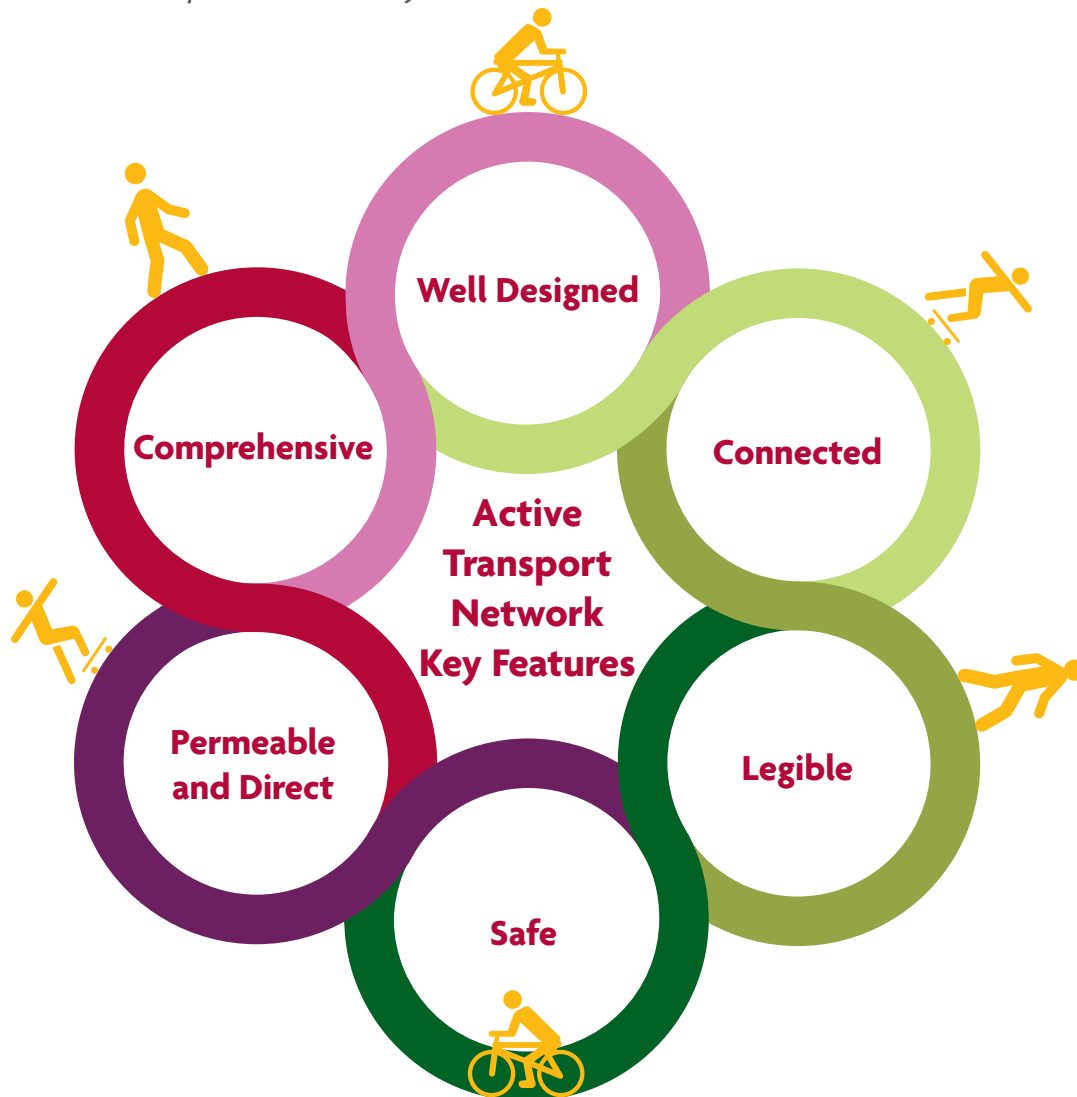
Growing an Active Transport Culture

An active transport culture is about Ipswich being a place where active transport is widely supported, encouraged and celebrated. It is about increasing awareness, reducing barriers and making active transport a cultural norm embraced by the wider community.

Achieving this policy focus involves:

- Supporting travel behaviour change to boost cycling and walking;
- Encouraging active school travel;
- Providing information and advice;
- Promoting active transport and community education;
- Supporting active transport events;
- Engaging active transport champions; and
- Ensuring road rules and legislative frameworks support active transport.

Figure 19: Active Transport Network Key Features



Actions

With regards to the future active transport system in Ipswich, Council's prioritised way forward is outlined in Table 13 and Map 5.

"We are realising that if you have people walk and bicycle more, you have a more lively, more liveable, more attractive, more safe, more sustainable and more healthy city."

Jan Gehl

International architect and urban designer



Table 13: Active Transport Actions

Action	Policy Focus			Timing
	Building Safe, Direct and Connected AT Networks	Developing Supportive AT Communities	Growing AT Culture	
AT1: Prioritise and provide active transport connections within 5km of Principal and Major Activity Centres and within 3km of schools to encourage walking and cycling trips.	✓	✓		O
AT2: Develop a connected network of pedestrian and cycle paths surrounding train stations, bus stops and transport hubs. Prioritise the delivery of these works based upon consumer profiles, demand and frequency of service.	✓	✓		O
AT3: Plan, prioritise, advocate and deliver strategic bikeway projects in Ipswich that form part of the SEQ Principal Cycle Network Plan.	✓			O
AT4: Plan, advocate and deliver end of trip facilities at all train stations, key bus stops and public transport hubs. Ensure that an appropriate number of different facility types are provided i.e. secure bicycle cages for all day commuter parking, bicycle racks for shorter term parking.		✓		O
AT5: Develop, advocate and implement a <i>Way Finding Strategy</i> focused around railway stations, other key public transport hubs and activity centres.		✓		O
AT6: Plan and implement in conjunction with key stakeholders events and initiatives to promote and encourage active transport (i.e. street festivals, bicycle skills and maintenance workshops, Ride to Work and Walk to Work days).			✓	O
AT7: Continue to develop and grow the Ipswich school <i>Healthy Active School Travel</i> Program and other school based programs (i.e. walking/cycling bus) which promote children travelling to and from school via safe active transport modes.			✓	O
AT8: Develop and implement a citywide <i>Active Transport Action Plan</i> which identifies Council's active transport objectives, policies, network and infrastructure priorities in detail. This will be used as an advocacy tool to obtain funding and inform the development of annual budgets and longer term investment and community programs.	✓	✓	✓	S
AT9: Undertake route and corridor studies (and if feasible, deliver) on strategic commuter bikeway corridors as outlined on Map 5. This includes: <ul style="list-style-type: none"> Ipswich City Centre to the existing Brassall Bikeway (via the Bradfield Bridge and Riverlink Shopping Centre); Ipswich City Centre to Yamanto and Deebing Heights (with possible expansion to Flinders View and Ripley) via Deebing Creek; Ipswich City Centre to existing RAAF bikeway; Ipswich City Centre to Booval and Dinmore; Extension of Goodna Creek Bikeway south from Goss Drive to Redbank Plains; Springfield Central to Camira; Springfield Central to Redbank Plains South; Springfield Town Centre 'spine' route; 	✓	✓		S
AT10: Review the Ipswich Planning Scheme to ensure that the requirements specified for end of trip facilities are suitable and sufficient to accommodate the planned growth in active transport. Investigate whether additional incentives can be provided to ensure the provision of high quality facilities (i.e. reduction of car parking rates, etc.).		✓		S
AT11: Review Council's streetscape design standards and guidelines to ensure that the design of streetscaping supports and promotes active transport.		✓		S
AT12: Identify and implement pedestrian priority zones in areas with high pedestrian activity such as the Ipswich City Centre, Springfield Central, Goodna and Ripley Town Centre. This involves undertaking a review of signal timing and speed limits to prioritise pedestrian movements over vehicular movements.	✓	✓		S
AT13: Identify locations where pedestrian and cyclist priority should be given over vehicular movements along strategic active transport routes. Prepare a suite of treatments for these locations and identify criteria to be considered when implementing these treatments.	✓	✓		S
AT14: Develop and implement a citywide <i>Road Safety Action Plan</i> which will consider all road users. This will include analysis of historic data of incidents involving pedestrians and cyclists across the city to identify trends and then develop targeted and community programs to address these safety issues.	✓	✓		S

Table 13 (cont): Active Transport Actions

Action	Policy Focus			Timing
	Building Safe, Direct and Connected AT Networks	Developing Supportive AT Communities	Growing AT Culture	
AT15: Identify and implement key locations within Principal Activity Centres for public end of trip facility centres including secure bicycle parking, showers, change rooms and lockers. Identify opportunities to partner with the private sector to construct and operate these facilities.		✓		M
AT16: Engage with major employment generators to develop and implement Sustainable Workplace Travel Plans to encourage and provide incentives for employees to travel to work via sustainable modes of transport. A pilot program for Ipswich City Council workers could be considered in the short term.		✓	✓	M

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

S = Short term (within the next 5 years or by 250,000 population)

M = Medium term (within the next 10 years or by 350,000 population)

“Restore human legs as a means of travel. Pedestrians rely on food for fuel and need no special parking facilities.”

Lewis Mumford
Historian & sociologist

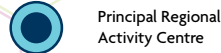




Active Transport Map

LEGEND

EXISTING



Principal Regional Activity Centre



Sub-regional Activity Centre



District Activity Centre



Regional Business & Industry Locality



Road



Commuter Bikeway



RAAF Amberley

FUTURE



Sub-regional Activity Centre



District Activity Centre



Main Street Activity Centre



Regional Business & Industry Locality



Commuter Bikeway

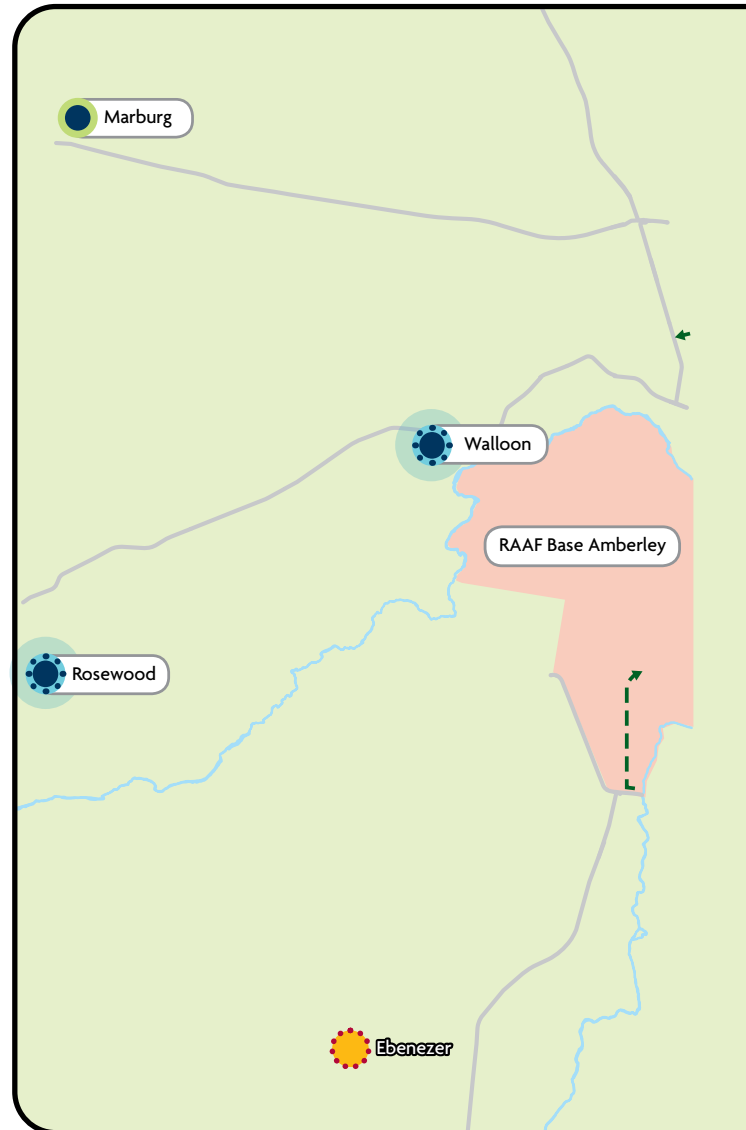


Pedestrian Investigation Area

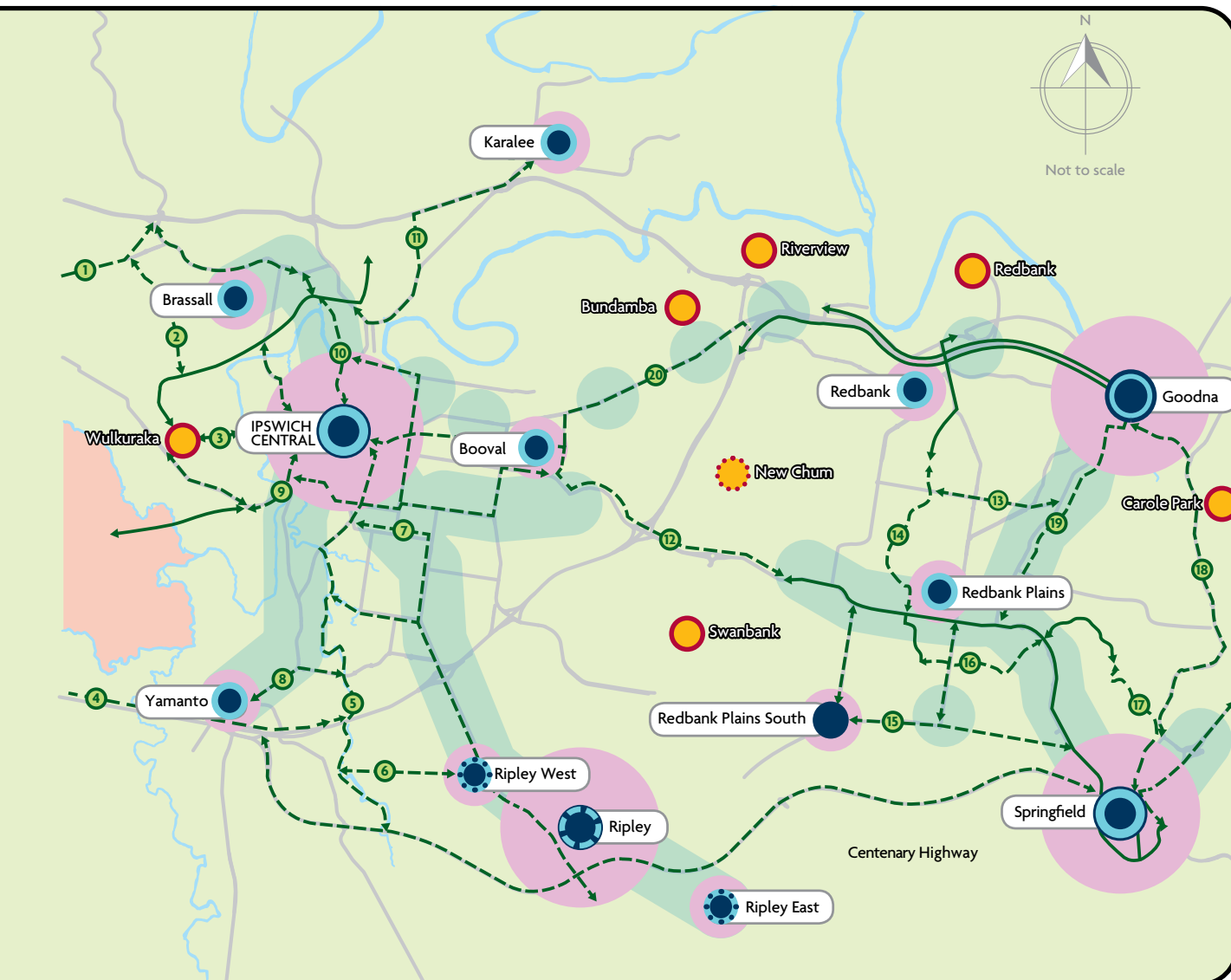


Priority Active Transport Investigation Area

- 1 Construct a pedestrian and cyclist connection from Brassall Bikeway to Wulkuraka Connection Road across Iron Pot Creek
- 2 Extend Brassall Bikeway north from existing path to Diamenia St
- 3 Investigate a new pedestrian and cyclist connection between Wulkuraka train station and Ipswich Central, including a new bridge over the Bremer River between Grace and Tallon Streets
- 4 Investigate a commuter bikeway link between Flinders View and RAAF Base Amberley along the Cunningham Highway corridor as part of its future upgrade
- 5 Investigate a commuter bikeway link between the Ipswich City Centre, Yamanto and Deebing Heights along Deebing Creek
- 6 Investigate a commuter bikeway link between the Ripley West district activity centre and Deebing Creek commuter bikeway
- 7 Investigate a commuter bikeway link between the Ipswich City Centre and Ripley Town Centre via Ripley Road and Edwards Street
- 8 Investigate a commuter bikeway between the Deebing Creek commuter bikeway and Yamanto
- 9 Investigate a commuter bikeway link between the Ipswich City Centre and RAAF Base Amberley via West Ipswich and One Mile
- 10 Investigate a commuter bikeway link between the Ipswich City Centre and the North Ipswich Railway Workshops Precinct via Riverlink and the Bradfield Bridge (a section of the Brassall Bikeway)
- 11 Investigate a commuter bikeway link between the Ipswich City Centre and the Karalee district activity centre



- 12 Investigate a commuter bikeway link between the Ipswich City Centre and Redbank Plains (via Redbank Plains Road, Mary Street and Glebe Road)
- 13 Investigate a commuter bikeway link between Collingwood Park and Redbank Plains Road
- 14 Extend the Goodna Creek Bikeway south from Goss Drive to the Redbank Plains Recreation Reserve



* All route alignments and configurations shown are subject to future investigation and corridor planning.

- 15 Investigate a commuter bikeway link between the Redbank Plains South and Springfield.
- 16 Extend the Goodna Creek Bikeway to link with the Springfield Town Centre via Opossum and Mountain Creeks
- 17 Investigate a commuter bikeway link between the Redbank Plains Recreation Reserve and Augusta Parkway and the Brookwater Bikeway
- 18 Investigate a commuter bikeway link between Springfield Lakes, Springfield, Camira and Goodna
- 19 Investigate a commuter bikeway between Goodna and Bellbird Park
- 20 Investigate a commuter bikeway link between the Ipswich City Centre and Dinmore (via Glebe Road and Brisbane Road)



ROADS

Introduction

Road transport is the leading mechanism for moving people and goods to, from and around Ipswich and will continue to do so into the future. However it's our attitude to car use for certain trips that will need to change to alleviate the need for major road network upgrades (e.g. 6 and 8 lane roads).

'Roads' are not a mode of transport but an infrastructure network able to be used by various vehicles - cars, freight vehicles, motorcycles, vans, trucks, buses and taxis - as well as active travel modes such as walking and cycling.

Roads are very versatile pieces of infrastructure. They provide the following public functions:

- Facilitate mobility, (transfer of people and goods) by motor vehicle, bicycle or walking;
- Access to and from adjacent properties and land uses;
- Parking, (including goods loading and passenger drop off and pick up);
- Opportunities for social interaction, (e.g. meeting places, street dining/markets/parades);
- Public utility service corridors, (e.g. electricity, water, sewer, gas and telecommunications);
- Recreation, fitness and relaxation, (e.g. walking, jogging, cycling, seating);
- City beautification, (e.g. streetscaping, gardens and boulevard treatments);
- Open space, (e.g. unformed road reserves, 'urban forest');
- Sense of presence, arrival and reflection, (e.g. city 'gateway' treatments, welcome signage, memorials); and
- Public notification; (e.g. advertising billboards, public notices).

A transport system which improves choice is not anti-motorist. Indeed, roads will remain a considerable part of the city's transport system in the future allowing people to connect with each other and products to get to the market. However, the mode of travel prioritised on the roads will need to change to more sustainable forms, (e.g. public and active transport, ride sharing etc).

The development, operation and maintenance of Ipswich's road network will remain a significant component of the function and budgets of Council and the Queensland Government. However, a growing city will see increasing travel demands on the road network which will lead to some level of traffic congestion in the future. There is no level of investment which can completely build our way out of congestion.

Some traffic congestion is required to encourage shifts in travel behaviour to more sustainable transport modes. Traffic congestion in activity centres is also good as it controls vehicle speeds, creating a safer and more amenable environment for people, and indicates a good level of economic activity.

The aim is to ensure the performance of the city's road network is safe, reliable and resilient (but not necessarily efficient during peak times).

"Whenever we increase road space we increase traffic. We are not fundamentally solving the problem of congestion."

Graham Currie

Urban planner and architect



Existing Situation

Network Extents

There is about 2,000km of formal trafficable roads in Ipswich as outlined in Table 14.

Table 14: Existing Road Network in Ipswich

Category	Length (km)
STATE ROADS	280
Motorway/Highway	95
Other	185
COUNCIL ROADS	1,770
Major Roads	210
Local Streets (sealed)	1,280
Local Streets (unsealed)	280

State-controlled Roads

About one seventh of the city's road network is controlled by the Queensland Government, through their Department of Transport and Main Roads (TMR).

This includes the Ipswich Motorway, Warrego Highway, Cunningham Highway (which also forms part of the Federally funded National Highway system) and other major traffic carrying roads such as the Centenary Highway, Brisbane Valley Highway, Brisbane Road, Warwick Road, Pine Mountain Road and Mount Crosby Road.



Council-controlled Roads

The balance of the road network in Ipswich is controlled by Council. This includes major roads and local streets (both sealed and unsealed).

There are currently 134 sets of traffic signals in Ipswich of which 92 are controlled by Council and the balance controlled by TMR.

Network Use

The roads in Ipswich which carry 10,000 vehicles or more per day are outlined in Table 15.

The Ipswich Motorway carries about 88,000 vehicles per day and is the busiest road in Ipswich followed by the Warrego Highway (48,500) and the David Trumpy Bridge (33,000).

Table 15: Daily Road Network Use (Traffic) in Ipswich

Road	Suburb	Daily Traffic Use
Ipswich Motorway	Goodna	88,000
Warrego Highway	Dinmore	48,500
David Trumpy Bridge	Ipswich Central	33,000
Cunningham Highway	Raceview	28,500
Brisbane Road	Ebbw Vale	28,500
Queen Victoria Parade	Ipswich Central	27,500
Centenary Highway	Springfield	27,000
Augusta Parkway	Brookwater	23,000
Redbank Plains Road	Redbank Plains	22,500
Brisbane Road	Booval	22,000
Brisbane Street	West Ipswich	19,500
Springfield Parkway	Springfield	19,500
Queen Street	Goodna	19,500
Springfield – Greenbank Arterial	Springfield Central	19,000
Old Logan Road	Camira	17,500
Pine Street	North Ipswich	17,000
Sinnathamby Boulevard	Springfield Central	16,500
Hunter Street – Kingsmill Street	Brassall/Coalfalls	16,000
Augusta Parkway	Bellbird Park	15,500
Toongarra Road	Leichhardt	14,000
Warwick Road	Yamanto	13,500
Pine Mountain Road	North Ipswich	13,000
Blackstone Road – Mary Street	Silkstone/Blackstone	13,000
Kruger Parade	Redbank	13,000
Burnett Street	Sadliers Crossing	13,000
Waterworks Road	North Ipswich	13,000
Johnson Road	Carole Park	13,000
Warwick Road	Ipswich Central	12,500
Collingwood Drive	Collingwood Park	12,500
Redbank Plains Road	Swanbank	12,500
Fernvale Road	Brassall	12,000
Limestone Street	Ipswich Central	12,000
Brisbane Street	Ipswich Central	11,500
South Station Road	Raceview	11,500
Mount Crosby Road	Tivoli	11,500
Junction Road	Karalee	11,500
Salisbury Road	Ipswich Central	11,000
Alice Street	Camira - Goodna	10,500
Ash Street	Yamanto/ Flinders View	10,000
Jacaranda Street	East Ipswich	10,000
Moffatt Street – Hooper Street	Ipswich Central	10,000

"I think the internal combustion engine will disappear from the streets of our cities in the next thirty years because transportation will be mass transportation and probably electrical power."

Gaylord Nelson

Former US senator and state governor and founder of "Earth Day"



Network Performance

Site observations, monitoring of traffic volumes and calibration of the Ipswich Strategic Traffic Model indicate that the road network in Ipswich is currently operating efficiently, performing at an overall level of service 'A' (refer to the next section that describes level of service).

Roads that are currently experiencing small levels of congestion are:


- Brisbane Road, Dinmore (am and pm peak hours);
- Brisbane Street, West Ipswich (am and pm peak hours)
- East Street and Churchill Street, Ipswich Central (am and pm);
- Ipswich Motorway, Riverview and Goodna (am and pm);
- Mount Crosby Road, Tivoli (am and pm);
- Pine Street, North Ipswich (am and pm);
- Queens Street, Goodna (am and pm);
- Roseberry Parade, Ipswich Central (am);
- Salisbury Road (west), Ipswich Central (am and pm); and
- Waterworks Road, North Ipswich (pm).

Road Hierarchy

Council has developed a road hierarchy to define the function and purpose of all roads within the city. The hierarchy also defines the role of the different road types and identifies the management intent for roads in urban and rural areas.

A summary of Council's adopted road hierarchy is outlined in Table 16 below.

Table 16: Ipswich Road Hierarchy

Classification	Primary Function
Motorway/Highway	Movement  Access
Arterial	
Sub-arterial	
Major collector	
Minor collector	
Access Street	
Laneway	

The existing road network of Ipswich is outlined on Map 6.

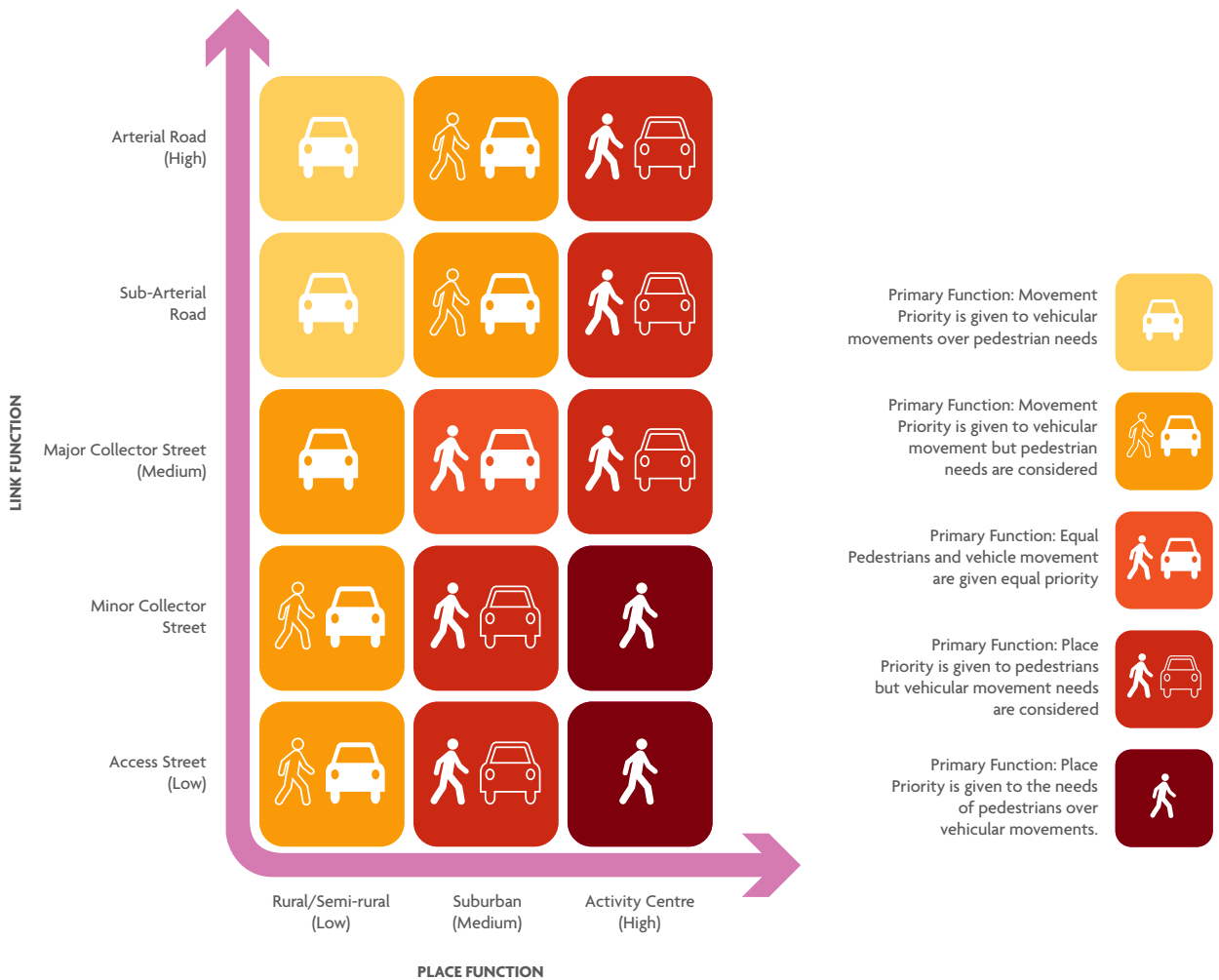


The road hierarchy was developed to ensure the road network accommodates various road users on the most appropriate road for that user and is based upon the 'link and place' approach. This methodology ensures traffic is managed efficiently on the road network, with through traffic movements catered for on higher order roads (link) and amenity protected by limiting traffic in these areas to local users (place). The road hierarchy also considers the needs of freight, public transport, cyclists and pedestrians.

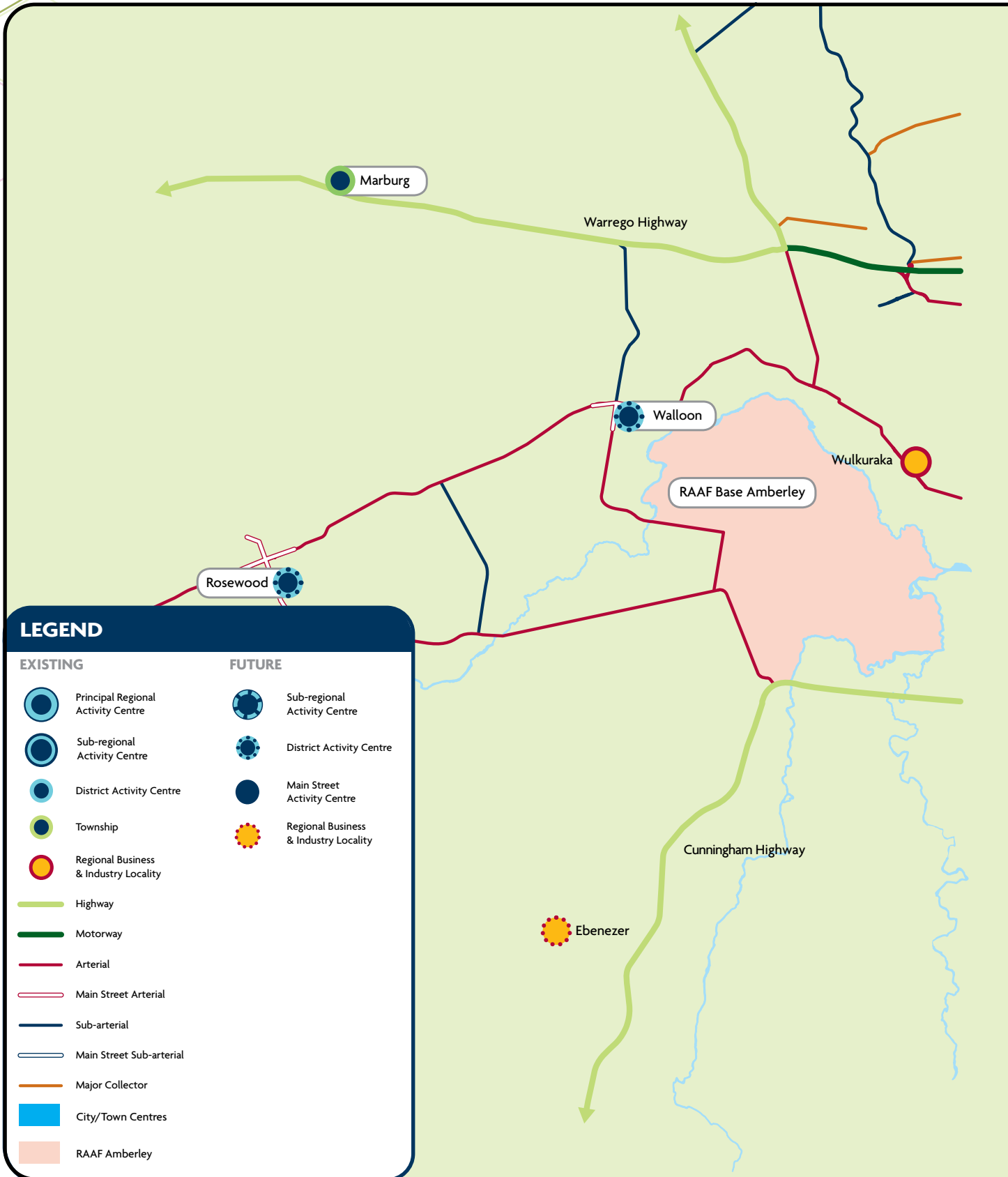
Figure 20 illustrates the inverse relationship between link and place and defines which road function takes priority in each zone based upon the road hierarchy. The matrix defines where priority is to be given to pedestrians and local movement and where priority should be given to through traffic.

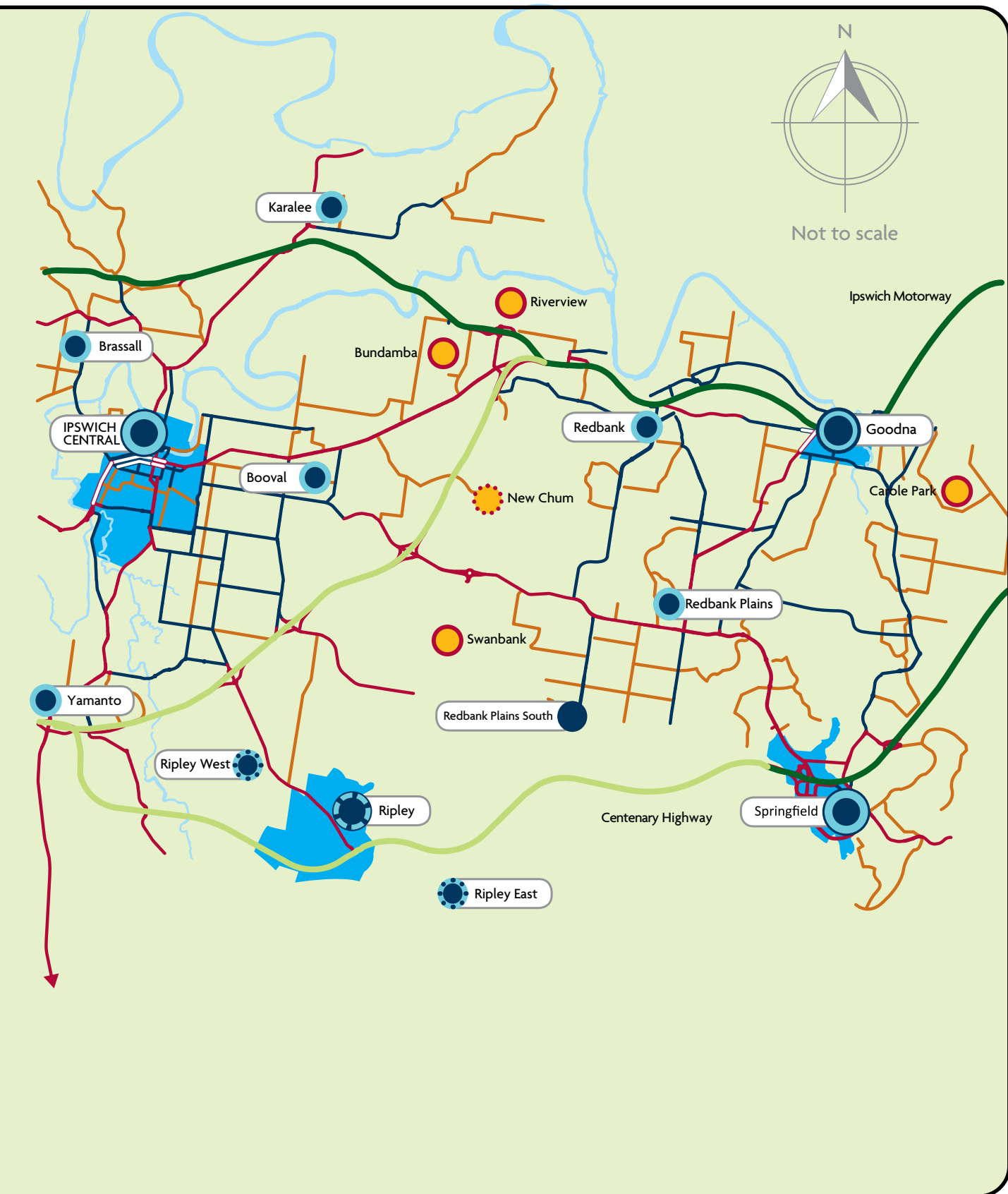
Further information on the Ipswich road hierarchy can be obtained by contacting Council. Maps of the existing road hierarchy adopted by Council are available for download at www.ipswichplanning.com.au

Figure 20: Link and Place Matrix



Existing Road Hierarchy Map







Road Network Development

The road network is developed based on one of the following project types:

1. Road upgrades;
2. Intersection upgrades; and
3. New roads.

Road Upgrades

This involves upgrading a road for either or both of the following reasons:

Capacity: Upgrading a road (or section of road) to improve its capacity. In Council's case, this usually involves upgrading a two-lane road to a nominal four-lane cross section.

Urban Standard: Upgrading a road (or section of road) to an urban standard. Works include geometry and cross drainage improvements, kerb and associated stormwater drainage infrastructure, cycle lanes, paths, street lighting and bus stops.

These projects are usually undertaken on existing two-lane roads that have a rural configuration but where increases in traffic volumes over time mean they require an urban standard for safety and mobility reasons. In most cases, the road does not require any capacity upgrades.

New developments are sometimes required to upgrade the frontage of their development site to an urban standard.

Intersection Upgrades

An intersection is upgraded for either or both of the following reasons:

Safety: Upgrading an intersection for the safety of pedestrians, cyclists and/or vehicles with one of the following treatments:

- Traffic signals;
- Roundabout;
- Channelisation (e.g., add turning lanes); or
- Delineation (e.g., add islands, pavement markings, signs, lighting)

Capacity: Upgrading an intersection for capacity reasons. Most intersections of major roads are already controlled by traffic signals or a roundabout but require additional works to improve their capacity as a result of traffic growth. Works may include additional lanes at a signalised intersection or replacing a roundabout with traffic signals. Sometimes capacity works are required to be undertaken to improve an intersection's safety.

New Roads

Construction of a new road or extending an existing road. This is done to provide access for a new development area or to improve connectivity for an existing local area by providing an alternative access route to avoid having to undertake capacity works to the existing route.

Asset Management Plan

Considerable funds are invested by road authorities on the upkeep of roads and associated assets including on-going maintenance (mowing, litter collection, pot hole repairs, re-painting line marking etc) as well as rehabilitation works (asphalt resurfacing, bitumen resealing, culvert replacement etc).

Both the Queensland Government and Council have taken a strategic approach to the management of their infrastructure based on a long term 'whole of life' approach to ensure road infrastructure provides a fit for purpose level of service for the community whilst assuring Council's finances remain sustainable.

Council's *Roads and Transport Asset Management Plan* provides the direction, principles, processes and desired levels of service for the effective management of Council's road and transport infrastructure.

Further information on Council's strategic asset management framework can be obtained by contacting Council.

Road Planning

Council's current transport planning primarily focuses on the performance and development of the city's road network.

There are a number of elements which make up Council's strategic road planning function which will continue to form the basis of iGO and its implementation in the future. These elements are:

- Local Government Infrastructure Plan;
- Ipswich Strategic Traffic Model;
- Level of Service;
- Infrastructure Agreements;
- Area Master Plans;
- Corridor Planning;
- Strategic Traffic Count Program;
- Road Safety Audits;
- Scenic Valleys Regional Roads and Transport Group; and
- Ipswich Traffic Co-ordination Group.

Local Government Infrastructure Plan

Council's strategic road network planning is contained in the *Local Government Infrastructure Plan* (LGIP) which forms part of the *Ipswich Planning Scheme*.

The LGIP outlines a strategy for the provision, investment and timing of Council's delivery of trunk infrastructure (roads, parks and land for community facilities) in response to growth. The LGIP forms the framework for charging new developments a monetary contribution towards investment in new infrastructure.

It should be noted the LGIP only deals with trunk infrastructure. For road purposes, trunk infrastructure is classified as arterial and sub-arterial roads; the major traffic carrying roads. Developers are responsible for the funding and construction of new local roads to service their new development sites. This includes major collector and collector streets.

The LGIP is also based on an 'ultimate' planning horizon; the infrastructure required to service the full development of the land use designations in the *Ipswich Planning Scheme*. Although still long term, iGO's planning horizon of 435,000 people is shorter than the LGIP.

A requirement of the Queensland Government is that all local authorities are to review and replace their LGIP over the coming years.

Ipswich Strategic Traffic Model

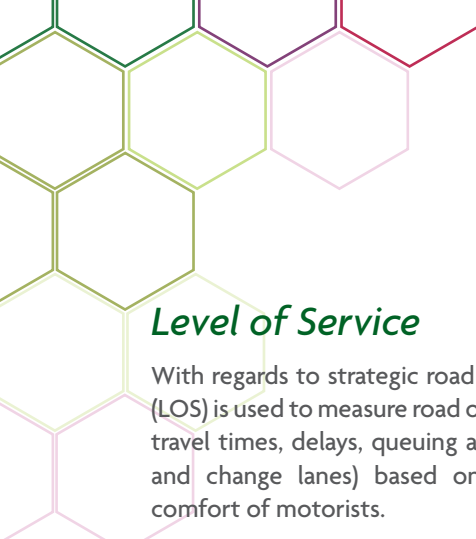
The road projects listed in the LGIP are based on demand forecasting and cost apportionment from the Ipswich Strategic Traffic Model (ISTM). The ISTM projects the future use of roads across the city and is used to undertake scenario testing of the network needed and timing of certain road projects. The ISTM is regularly updated based on revised development, travel and network and development assumptions.

The ISTM was updated to inform the development of the iGO. This included:

- 435,000 population (nominal year 2031);
- 350,000 population (nominal year 2026);
- 275,000 population (nominal year 2021);
- Calibration to 2011 census data and traffic counts;
- Testing of various scenarios relating to projected employment numbers, mode shares and road network performance targets.

Further information on the ISTM (and the work undertaken to inform the development of iGO) is available on request from Council.





Level of Service

With regards to strategic road planning, a level of service (LOS) is used to measure road operating conditions (speed, travel times, delays, queuing and freedom to manoeuvre and change lanes) based on the driving experience/comfort of motorists.

There are six levels of service designated 'A' to 'F', with LOS 'A' representing the best operating condition (i.e. free-flow) and LOS 'F' the worst (i.e. forced or breakdown flow). Table 17 provides a description of each LOS.

Council's aim is to have the future road network operating at or above a LOS of 'D.' In essence, a road has been listed in the LGIP for capacity upgrades if and when it is forecast to reach a LOS 'D.' This operating threshold has been carried over to iGO.

As such, motorists can expect some level of congestion, delay and queuing on some of the city's road network in the future.

Table 17: Road Level Of Service Categories and Descriptions

Level	Characteristic	Average Speeds	Average speed on a 60Km/h road
A	Traffic flows at or above the posted speed limit and motorists have complete mobility between lanes.	> 85% of the speed limit	> 50km/h
B	Reasonably unimpeded operation with the ability to manoeuvre and change lanes only slightly restricted.	Between 60% and 85% of the speed limit.	35-50km/h
C	Stable operation with the ability to manoeuvre and change lanes only slightly restricted. Longer queues at some intersections contribute to lower travel speeds.	Between 50% and 60% of the speed limit.	30-35km/h
D	Less stable conditions in which small increases in flow may cause substantial increases in delay and decreases in travel speed.	Between 40% and 50% of the speed limit.	25-30km/h
E	Unstable operation and significant delay and queuing at intersections.	Between 30% and 40% of the speed limit.	20-25km/h
F	Flow at extremely low speed with high degrees of delay and queuing at intersections.	< 30% of the speed limit	<20km/h

Infrastructure Agreements

Council has entered into Infrastructure Agreements with developers across the city to construct planned trunk roads to provide access for a development area or upgrade a road along a frontage of a development site to an urban standard. The cost of constructing these trunk roadworks are offset against road infrastructure contributions payable under the *Ipswich Planning Scheme*.

For example, in 1998, Council and the Springfield Land Corporation (the master developer of land at Springfield, Springfield Lakes, Springfield Central and Brookwater) entered into the Springfield Infrastructure Agreement (SIA) to formally establish arrangements for the design, construction, timing, land dedication and funding mechanisms for the delivery of trunk infrastructure (roads, parks, water and sewer) in the Springfield area.

Ripley Valley Infrastructure Plan

The Queensland Government developed the *Ripley Valley Local Infrastructure Plan* (LIP) as the mechanism to identify and charge for trunk infrastructure as part of their planning and development of the Ripley Valley Priority Development Area (declared by the Queensland Government in 2010 and administered under their Economic Development Act 2012). The LIP includes major roads, intersections and bridges.

Further information on the Ripley Valley Priority Development Area can be obtained at www.dilgp.qld.gov.au

Area Master Planning

As part of Council's land-use master planning activities, indicative future road networks (down to the collector street level) are identified. Areas that have master plans include Springfield, Ripley, Deebing Heights, Yamanto, Brassall, Redbank Plains south, Bellbird Park and Walloon/Thagoona as well as the Swanbank - New Chum Enterprise Park, the Ebenezer Regional Industrial Area and the Bundamba/Dinmore/Riverview industrial area.

Outcomes from area master plans inform Council's development assessment, corridor planning and traffic management activities.

Corridor Planning

More detailed corridor planning studies for individual road projects listed in the LGIP and/or identified in area master plans are then undertaken to better inform their route, configuration, footprint, engineering and environmental feasibility and the estimated cost of the project.

Outcomes from corridor planning studies inform Council's development assessment, investment programming, corridor preservation and traffic management activities.

Stakeholder engagement is undertaken on major projects to inform the corridor planning process and to inform the public on the project's rationale and composition.

Strategic Traffic Count Program

Each year since 2010, Council has carried out the Strategic Traffic Count Program which comprises the gathering of traffic data from approximately 100 locations across Council's major road network.

The program takes place in the months of October/November. The data delivers information on traffic growth rates across the city and is then utilised to advise Council's transport planning, traffic operations, investment programming and development assessment activities.

Overall, traffic has increased by an average of 5% across the city over the last year, which is in line with current population growth rates. Areas higher than the five year citywide trend are the outer eastern suburbs (Springfield, Bellbird Park, Augustine Heights), with a growth rate of 8%, and the inner northern and western suburbs (Brassall, North Ipswich, West Ipswich), with a growth rate of over 4%.



Road Safety Audits

Council undertakes road safety audits on its road network. A road safety audit is a pro-active investigation of the safety aspects along an entire road corridor including roadside hazards, geometry, sight distances, speeds, lighting, delineation and signage.

Recommendations from each road safety audit are then implemented based on prioritised order.

Recent road safety audits undertaken by Council are outlined in Table 18 below.

Table 18: Recent Road Safety Audits

Road	Year
Brisbane Terrace, Goodna	2009
Wulkuraka Connection Road, Karrabin	2010
Pine Mountain Road, Muirlea	2011
Alice Street, Goodna	2012
Bergins Hill Rd/ Barclay St/ Naomai St, Bundamba	2013
Lobb Street, Churchill	2014



Scenic Valley Regional Roads and Transport Group

Ipswich City Council is a member of the *Scenic Valley Regional Roads and Transport Group* (SVRRRTG). Other members of the SVRRRTG are Scenic Rim Regional Council, Lockyer Valley Regional Council and the Department of Transport and Main Roads.

The SVRRRTG was formed as part of the *'Roads and Transport Alliance'* - a cooperative governance arrangement between the Queensland Government and the Local Government Association of Queensland (LGAQ)

Established in 2002, the Roads and Transport Alliance was formed to jointly address shared road and transport challenges and deliver improved value from all available resources through innovative approaches to road stewardship, network planning, program development, purchasing and resource sharing

Ipswich Traffic Coordination Group

Ipswich City Council is the convener of the *Ipswich Traffic Coordination Group* (ITCG). Other members of the ITCG are TMR and the Queensland Police Service. The ITCG meet regularly to discuss and resolve traffic and road safety matters across Ipswich.

Opportunities

There are a number of opportunities for the sustainable development and management of Ipswich's road network.

Getting More Out of the Existing Road Network

There are some cost effective treatments which can be implemented to improve the safety and operation of the road network before, or instead of, undertaking upgrades to entire roads. The following elements are worthy of further consideration:

- Optimising traffic signal phasing;
- Allowing motorists to turn left on a red signal once safe to do so;
- Adding or extending auxiliary lanes at intersections;
- Installing 'clearways' along arterial roads, kerbside parking restrictions during times of peak flow along major roads to effectively form an additional travel lane;
- Installation of direction signs and route markers to better inform motorists (and other road users) of the way to key destinations and to improve the legibility of the major road network;
- Adding bicycle lanes and paths along existing roads;
- Providing information to road users about road network conditions to allow for more informed travel decisions before and during the journey. This includes the use of in car, smart phone and internet technology;
- Trimming of vegetation, relocation of fences and road furniture and removal of obstacles to improve motorist sight lines;
- Installation of road shoulders to allow for safer and more efficient manoeuvring into and out of driveways on major roads; and
- 'Managed Motorways' – a collective system of smart technology and low cost infrastructure measures to minimise disruption of traffic on motorways and thus make travel times on motorways reliable. Treatments include on-ramp metering, variable speed limits, turning unused shoulders into travel lanes, enhanced driver information and accelerated clearance of broken down vehicles.



'SmartRoads' Network Management

The Victorian Government has developed a new approach called 'SmartRoads' to manage competing interests for limited space on Melbourne's major roads by giving priority to different transport modes at particular times of the day and place of activity.

'SmartRoads' recognises the increasing importance of public transport, walking and cycling as transport modes and the operation of the road network needs to support the integration of land use and transport.

Under 'SmartRoads,' all road users continue to have access to all roads, but over time, changes are being made to how roads are operated to:

- Facilitate good pedestrian and cyclist access to, from and within activity centres in periods of high demand;
- Prioritise trams and buses on key public transport routes which link activity centres during morning and afternoon peak periods;

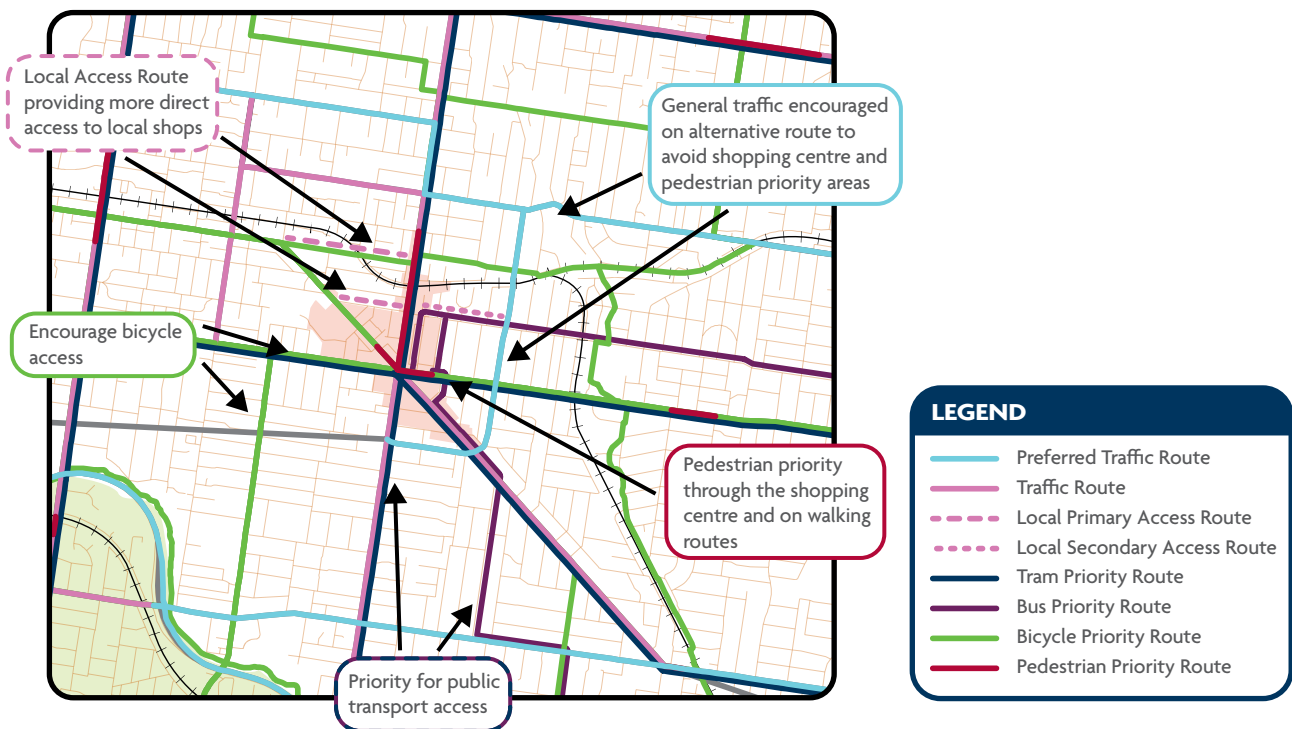
- Encourage cars to use alternative routes around activity centres to reduce the level of 'through' traffic; and
- Prioritise trucks on important transport routes which link freight hubs and at specific times reduce conflict with other transport modes.

For example, in a certain area, during peak hours, priority might be given to public transport to facilitate the movement of as many people as possible. During the middle of the day, priority might be given to pedestrians and cyclists and, in the evening, priority given to private vehicles.

Further information on 'SmartRoads' can be found at www.vicroads.vic.gov.au

The 'SmartRoads' approach has been successfully trialled at the Southport Town Centre area on the Gold Coast. There are opportunities to work with the Queensland Government to implement this approach at a number of locations across Ipswich including the Ipswich City Centre and the Goodna Town Centre through area transport master plans.

Figure 21: 'SmartRoads' Approach To Road Management



Source: VicRoads (2011), SmartRoads: Connecting Communities

'Road Diets'

A 'road diet' is a technique where the number of travel lanes of a section of road is reduced in order to achieve systemic improvements for other road users and adjacent land uses.

For example, a four-lane road might be reduced to one travel lane in each direction. The freed-up space can then be used to widen footpaths and verges, add landscaping treatments and implement cycle and/or parking lanes.

Opportunities exist for Council to implement road diet initiatives in activity centres to enhance their economic and aesthetic appeal to potential investors, customers and visitors.

Queensland Road Safety Strategy and Action Plan

Over the past 30 years, significant reductions have been made to Queensland's road toll. The Queensland Government has recently released its new Road Safety Strategy (2015-2021) and Action Plan (2015-2017). These include a range of measures to target roads, vehicles and drivers. This includes actions relating to:

- Driver licencing and learning;
- Vehicle registration, design and condition;
- Policing and enforcement;
- Education, awareness and promotion campaigns;
- Road conditions and vehicles speeds;
- Crash reporting, analysis and profiling; and
- Targeted infrastructure investment.

Recent measures introduced by the Queensland Government include flashing school zones signs, road rules relating to the minimum clearance motorists need to give cyclists on the road and motorcycle licencing reforms.

Ipswich City Centre Orbital Road System

In 2011, Council adopted the *Ipswich City Centre Orbital Road System* as a high level long term transport planning initiative. Refer to Map 7 (over) for the indicative route of the orbital road system.

Whilst still subject to further detailed planning and feasibility work (need and route analysis, engineering and environmental investigations and community engagement), the orbital road system will provide better suburb to suburb connections across the central areas of Ipswich and alleviate the need for through traffic from travelling through the Ipswich City Centre thus allowing the Ipswich City Centre to have a people orientated focus rather than having to give priority to the efficient movement of cars.



Norman Street Bridge

A key section of the Ipswich City Centre Orbital Road System is a new crossing of the Bremer River linking North Ipswich and East Ipswich in the vicinity of Norman Street (refer Map 10).

The planned Norman Street Bridge will provide both transport and 'place making' benefits to assist with the economic and civic revitalisation of the Ipswich City Centre.

The new bridge will encourage nonessential through traffic out of the Ipswich City Centre, making way for opportunities for streetscape improvements, on-street dining, speed limit reductions as well as enhanced pedestrian and public transport facilities.

Further information on the Norman Street Bridge can be found at www.normanstreetbridge.com.au

Given the scope and cost of the Norman Street Bridge, an investment partnership between all three levels of government will be needed to see the project come to fruition.

Western Ipswich Bypass

The Queensland Government has planned a new road linking the Warrego Highway at Haigslea with the Cunningham Highway at Willowbank (refer Map 10). Once constructed, the Western Ipswich Bypass will complete a system of high order roads around the periphery of the central part of Ipswich.

Further information on the Western Ipswich Bypass can be found at www.tmr.qld.gov.au

Technological Advances

Over the life of iGO (that is, between now and Ipswich having a population of 435,000 people), there will be considerable advances in the development, use and widespread uptake of new technology that will make travelling different to what we know today.

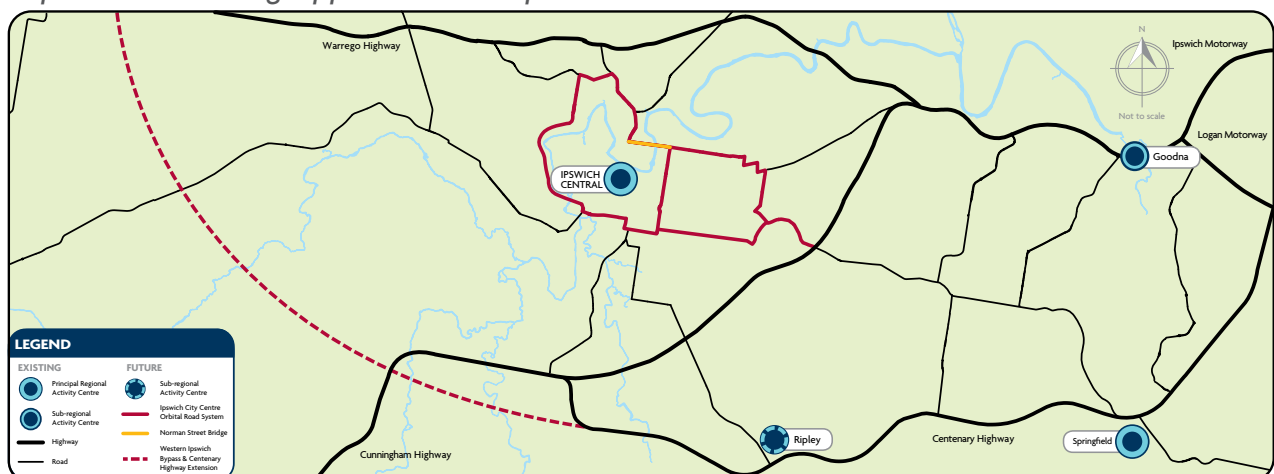
These technological advances will lead to a more comfortable and tolerable driving experience and safer and more efficient road and driving environments and will likely be in the form of the elements outlined in Table 19 below.

It is difficult to identify exactly what effect technological advances will have on the road transport system over the next 20+ years. However, opportunities exist for governments and transport providers to embrace new technology and evolve and adapt the road transport system accordingly.

Table 19: Technological Advancement Elements Relating to Road Transport

Environment	Examples
Road	New construction and maintenance materials and techniques, vehicle detection and recognition systems, LED street lighting.
Vehicle	New propulsion such as electric motors.
Driving	Automation (driverless vehicles), driver warnings and information systems.

Map 7: Road Planning Opportunities Map



* All route alignments and configurations shown are subject to future investigation and corridor planning.

Challenges

There are a number of challenges for the sustainable development and management of Ipswich's road network.

Congestion Management

As Ipswich continues to grow, demand for travel on the road network will also continue to grow. Whilst the city's road network is currently performing well for vehicles, congestion at some locations during peak hours will become apparent over the life of iGO.

Whilst some congestion is a good thing (it promotes travel behaviour change to more sustainable forms of transport and indicates a good level of economic development), there are some roads where investment will be required to alleviate traffic congestion for freight accessibility and economic reasons.

A challenge of the Queensland Government and Council is to manage resident and business expectations on future traffic congestion by establishing a paradigm where trips on the road network during some periods of the day are reliable but may not be as efficient as currently experienced. That is, motorists will experience some level of congestion on the road network during peak hours in the future as long as the overall trip duration is similar every time that same journey is made. Motorists can plan their travel based on an expected journey time whilst becoming tolerable of a certain level of delay and queuing at key locations.

Brisbane Commute

As the city has matured, Ipswich's labour market has evolved and the level of goods and services provided to the community has seen a growing level of self-containment. It is anticipated that the need for travel to Brisbane to access jobs and services will reduce over time as the city grows.

However, given the geographical location of Ipswich to Brisbane and employment services, recreation and entertainment opportunities provided by Queensland's capital, there will continue to be demand to travel to/from Brisbane by Ipswich residents.

A challenge of the Queensland Government and Council is to manage the travel demand to/from Brisbane during peak hours (particularly the commuter trip to/from the

Brisbane CBD) through travel behaviour change initiatives and land use measures, including continuing to develop jobs and deliver services locally to reduce demand for travel to Brisbane.

Limited Space

As cities grow, urban space becomes more constrained and valuable making it difficult for large scale expansion of the road network. Roads take large amounts of urban space. Inevitably the city must choose between providing more space for roads or using existing roads more efficiently. Heavy traffic also reduces the amenity of communities through noise and air pollution. The need to maintain liveability and protect the environment is a vital consideration in road planning.

Given the cost and impact of roads, it is imperative that they be used efficiently. This means that efficient and essential means of transport, like buses and commercial vehicles, need priority on parts of the road network that are in high demand.

Cultural Values

Ipswich has a proud past being the first provincial city established in Queensland. In the original suburbs of Ipswich, there are a number of places of historical interest including heritage buildings, character housing precincts, parks and open spaces. The preservation and activation of these cultural values is a key outcome for Council to ensure Ipswich has a historical 'point of difference' in the future.

Large scale expansion of the road network may not be conducive to preserving these cultural values and will be a challenge for the Queensland Government and Council to manage moving forward. Some compromises will need to be made to the planning and design of new roads and road upgrades in the future, particularly in established urban areas, to achieve a balance between the community's transport needs and protecting heritage, character and lifestyle.





Policy Focus

iGO recognises the fundamental value of road transport in a growing city. It seeks to use, manage and expand the network in a way that meets the essential needs of all users while supporting a major shift to sustainable transport modes for certain trip types.

With regards to Ipswich's future road network, iGO has the following policy focus:

- Safe, reliable and resilient road network;
- Effectively balance and manage the needs of all road users; and
- Support and enable technology and transport infrastructure innovations.

Safe, Reliable and Resilient Road Network

This policy focus relates to the planning, design and management of Ipswich's road network to ensure it performs in a safe, reliable and resilient manner for all road users.

Council is committed to making the most out of existing road space and assets while planning for and preserving corridors for future generations.

Whilst Ipswich's road network in the future may not necessarily be efficient during certain times of the day (that is, motorists will encounter and expect traffic congestion on some parts of the road network during peak hours), achieving this policy focus will mean:

- The road environment is safe for all types of users;
- Travel times on the city's roads will be predictable; and
- The road network is able to handle and/or quickly recover from events such as flooding and crashes with route alternatives provided to/from key destinations.

Effectively Balance and Manage the Needs of All Road Users

This policy focus has regard to how space on the road network is prioritised, integrated, designed and managed for all of the different types of road users.

It involves ensuring that the allocation of road space reinforces the overall strategic intent of Council (i.e. to move towards a more sustainable transport future) and that road space incentives and disincentives for particular modes are provided having regard to Council's road hierarchy and strategic intent for particular transport corridors and areas within Ipswich.

Achieving this policy focus means that the Ipswich community has access to viable transport mode choices and that amenity impacts and land use access requirements are appropriately managed.

Support and Enable Technology and Transport Infrastructure Innovations

Ipswich is a growing technology hub, a leader in the digital economy and a smart future thinker.

This policy focus involves supporting and enabling the development, testing, implementation and widespread uptake of new technology relating to transport - particularly technological advances that promote the use of sustainable transport modes, reduce transport infrastructure costs and reduce the community's current reliance on fossil fuels (e.g. intelligent way finding signage systems, new road building materials and techniques, solar powered LED street lighting etc.).

It's about questioning the norm, identifying opportunities and facilitating innovation to achieve a sustainable transport future.

Actions

With regards to the future road network in Ipswich, Council's prioritised way forward is outlined in Table 20.

Road Network Development Projects

With regards to the development of the road network over the life of iGO, Council's prioritised way forward is outlined in Tables 20 to 29 and Maps 8, 9 and 10.



Table 20: Road Network Actions

Action	Policy Focus			Timing
	Safe, reliable & resilient road network	Balance needs of all road users	Support & enable innovation	
<p>R1: Plan and deliver the road network development projects as outlined in iGO (refer Tables 21-26 and Maps 8 & 9). Key Council roads and intersections for development within the next 10 years include:</p> <p>CENTRAL AREA</p> <ul style="list-style-type: none"> • Brisbane Street, West Ipswich • Marsden Parade (realignment), Ipswich Central • Old Toowoomba Road, One Mile • Toongarra Road, Wulkuraka • Blackstone Rd/South Station Road, Silkstone • Chermiside Rd/Robertson Rd, Eastern Heights • Pine St/Lowry St, North Ipswich • Pine St/Delacy St, North Ipswich • Salisbury Rd/Briggs Rd, Eastern Heights • Sydney St/Albion St, Brassall <p>NORTHERN AREA</p> <ul style="list-style-type: none"> • Junction Road, Karalee <p>SOUTHERN AREA</p> <ul style="list-style-type: none"> • Ripley Road, Ripley <p>EASTERN AREA</p> <ul style="list-style-type: none"> • Jones Road, Bellbird Park • Redbank Plains Road, Redbank Plains/Swanbank • School Road, Redbank Plains • Springfield - Greenbank Arterial, Springfield Central • Springfield Parkway, Springfield • Queens St/Alice St, Goodna • Redbank Plains Road/Eagle Street, Redbank Plains • Redbank Plains Road/Highbury Drive, Redbank Plains 	✓	✓		○
<p>R2: Continue to undertake corridor planning studies to investigate and determine the need, route, configuration, footprint, engineering and environmental feasibility and costings of the road network development projects outlined in iGO. Key corridor planning studies over the next five years include:</p> <ul style="list-style-type: none"> • Grampian Drive, Deebing Heights • Ipswich - Ripley Strategic Link (Edwards Street, Ripley Road), Ipswich Central, Raceview, Flinders View and Ripley • Robertson Road - Mary Street Link, Eastern Heights - Blackstone • School Road, Redbank Plains 	✓	✓		○
<p>R3: Continue to investigate and preserve corridors for future roads as outlined in iGO through tactical action and/or as development occurs.</p>	✓	✓		○
<p>R4: Continue to investigate and preserve corridors for future roads as outlined in iGO (refer Tables 27-29 and Map 10) through tactical action and/or as development occurs.</p>	✓	✓	✓	○
<p>R5: Continue to support and enable technological advances in the delivery and management of road transport including new:</p> <ul style="list-style-type: none"> • Construction materials and techniques; and • Vehicle and driver innovations. 			✓	○

Table 20 (cont): Road Network Actions

Action	Policy Focus			Timing
	Safe, reliable & resilient road network	Balance needs of all road users	Support & enable innovation	
<p>R6: Continue to undertake and implement corridor road safety audits with a focus on roads in semi-rural areas where traffic volumes are expected to increase in the coming years. This includes:</p> <ul style="list-style-type: none"> • Bayley Road, Pine Mountain • Fischer Road, Flinders View/Ripley • Kholo Road, Kholo • Riverside Road, Muirlea • Railway Street and Rosewood - Thagoona Road, Rosewood/Thagoona • School Road, Redbank Plains • Taylors Road, Walloon 	✓	✓		O
<p>R7: Investigate, trial and where appropriate implement techniques and initiatives to better use existing roads and road space. This includes:</p> <ul style="list-style-type: none"> • Sweating existing traffic signals on arterial roads include phasing optimisation opportunities; • Allow motorists to turn left on a red signal if safe to do so; • 'Road Diet' opportunities; and • 'SmartRoads' approach to road and traffic management as part of development and implementation of Area Master Plans. 	✓	✓	✓	S
R8: Develop and implement a policy for the early acquisition of property for future roads under 'hardship'.	✓	✓		S
R9: Develop a detailed Business Case for the Norman Street Bridge to assist with securing funding for its construction.	✓	✓		S
R10: Develop and implement a citywide <i>Road Safety Action Plan</i> which will consider all road users. This will include analysis of historic data of incidents across the city to identify trends and then develop targeted investment and community programs to address these safety issues.	✓	✓	✓	S
R11: Develop and implement a citywide <i>Direction Sign & Route Marker Action Plan</i> to enhance the legibility of the road network for motorists - particularly new residents and visitors.	✓	✓	✓	S
R12: Develop and implement a citywide <i>Local Area Traffic Management Action Plan</i> for the planning of 'traffic calming' projects in residential streets (including a policy on where and how such projects are delivered).	✓	✓	✓	S

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

S = Short term (within the next 5 years or by 250,000 population)



Road Capacity and Connectivity Projects

Table 21: Road Capacity and Connectivity Projects Required by 275,000 Population

Road	Suburb	From	To	Works	Map Ref.
Brisbane Street	West Ipswich	Burnett Street	Hooper Street	Upgrade to 3 lanes	1
Albion Street	Brassall	Sydney Street	Workshop Street	Upgrade to 4 lanes	2
Augusta Parkway - Sinnathamby Boulevard	Springfield Central	Eden Station Drive	Main Street		3
Downs Street - Pine Mountain Road	North Ipswich	Lowry Street	Waterworks Road		4
Mount Crosby Road	Chuwar/Karalee/Tivoli	Junction Road	Warrego Highway		5
Old Toowoomba Road	One Mile/Leichhardt	Lobb Street	Toongarra Road		6
Redbank Plains Road	Redbank Plains	Keidges Road	School Road		7
Redbank Plains Road	Redbank Plains	Kruger Parade	Jones Road		8
Springfield Parkway	Springfield	Centenary Highway	Old Logan Road		9
Springfield-Greenbank Arterial	Springfield/Springfield Central	Sinnathamby Boulevard	Springfield Parkway		10
Bayley Road Extension	Pine Mountain	Cabernet Crescent	Pine Mountain Road		Road extension (2 lanes)
Diamantina Boulevard Extension	Brassall to Karrabin	Diamantina Boulevard	Keswick Road	Road realignment (2 lanes)	12
Marsden Parade Realignment	Ipswich Central	Gordon Street	Railway underpass		13
Norman Street Bridge	North Ipswich to East Ipswich	Downs Street	Chermside Road	New river crossing	14
Mount Juillerat Drive	Redbank Plains/Swanbank	Centenary Highway	School Road	New 2-lane road	15
Mount Juillerat Drive	Augustine Heights	Santa Monica Drive	St Augustines Drive		16
Mur Boulevard Extension	Bellbird Park to Springfield	Jones Road	Mur Boulevard		17
Alice St/Bertha St	Goodna	Intersection			Add auxiliary lanes at existing traffic signals
Blackstone Rd/South Station Rd	Silkstone			19	
Pine Mountain Rd/Holt St/Hunter St	Brassall			20	
Queen St/Alice St	Goodna			21	
Brisbane Rd/Chermside Rd/Glebe Rd/Queen Victoria Pde	Newtown			Reconfigure	22
Pine St/Delacy St	North Ipswich			Install traffic signals	23

NOTE: All projects listed are subject to detailed corridor planning, engineering and environmental feasibility investigations and community engagement processes.

Table 22: Road Capacity and Connectivity Projects Required by 350,000 Population

Road	Suburb	From	To	Works	Map Ref.	
Ipswich Motorway	Dinmore to Goodna	Brisbane Road	Logan Motorway	Upgrade to 8 lanes	24	
Centenary Highway	Carole Park to Springfield Central	Augusta Parkway	Logan Motorway	Upgrade to 6 lanes	25	
Cunningham Highway (inc. Amberley Interchange)	Yamanto to Willowbank	Warwick Road	Coopers Road	Upgrade to 4 lanes	26	
Edwards Street	Raceview	Briggs Road	Ripley Road		27	
Ripley Road	Flinders View/Raceview	Cunningham Highway	Edwards Street		28	
Waterworks Road	North Ipswich	Warrego Highway	Pine Mountain Road		29	
Binnies Road	Deebing Heights/Ripley	Pisasale Drive	Ripley Road	New 2-lane road	30	
Montereia Road	Ripley	Binnies Road	Ripley Road		31	
Newhill Drive Extension	Swanbank	Rob Roy Way	Swanbank Road		32	
Eagle Street Extension	Collingwood Park - Bellbird Park	Collingwood Drive	Kruger Parade	Road extension (2 lanes)	33	
Edwards Street Extension	Raceview	Briggs Road	Warwick Road		34	
Henry Street Extension	Brassall	Atlantic Drive	Workshops Street		35	
Mount Juillerat Drive	Augustine Heights - Redbank Plains	Santa Monica Drive	Cedar Road		36	
Robertson Road Extension	Blackstone/Raceview	South Station Road	Mary Street		37	
Hunter St/Albion St/Workshop St	Brassall	Intersection		Add auxiliary lanes at existing traffic signals	38	
Ripley Rd/Reif St	Flinders Views				39	
Cunningham Hwy/Mary St/Redbank Plains Rd	Blackstone				Upgrade interchange	40
Warrego Hwy/Mount Crosby Rd	Tivoli				Upgrade interchange	41

NOTE: All projects listed are subject to detailed corridor planning, engineering and environmental feasibility investigations and community engagement processes.

Table 23: Road Capacity and Connectivity Projects Required by 435,000 Population

Road	Suburb	From	To	Works	Map Ref.	
Brisbane Road	East Ipswich/Newtown	Queen Victoria Parade	Montauban Street	Upgrade to 6 lanes	42	
Bertha Street	Goodna	Brisbane Road	Alice Street		43	
Bremer Street	Ipswich Central	Ellenborough Street	Bell Street		44	
Chermside Road	Ipswich Central/Newtown	Blackstone Road	Brisbane Road		45	
Centenary Highway	Springfield to Yamanto	Augusta Parkway	Cunningham Highway		46	
Cunningham Highway	Ripley to Yamanto	Ripley Road	Warwick Rd		47	
Healthcare Dr/Wellness Way	Springfield Central	Sinnathamby Boulevard	Parkland Drive		48	
Hunter Street	Brassall	Pine Mountain Road	Haig Street		49	
Ipswich - Rosewood Road	Amberley	Cunningham Highway	Haigslea - Amberley Rd		50	
Karrabin-Rosewood Road	Thagoona/Walloon/Karrabin	Thagoona-Haigslea Road	Toongarra Road		Upgrade to 4 lanes	51
Mary Street	Blackstone	Cunningham Highway	Thomas Street			52
Old Logan Road	Camira	Alice Street	Addison Road			53
Ripley Road	Ripley	Cunningham Highway	Providence Parade			54
Springfield-Greenbank Arterial	Springfield Central/ Springfield Lakes	Sinnathamby Boulevard	Grande Avenue			55
Toongarra Road	Wulkuraka	Karrabin - Rosewood Road	Aspinall Street			56
Toongarra Road	Leichhardt	Samford Road	Old Toowoomba Road	57		
Warwick Road	Churchill/Yamanto	Pisasale Drive	Deebing Creek	58		
Salisbury Road Extension	Ipswich Central	Moffatt Street	Warwick Road	Road extension (2 lanes)		59
Brisbane Rd/River Rd/Aberdare St	Dinmore	Intersection				60
Burnett St/Herbert St/Woodend Rd	Sadliers Crossing			Add auxiliary lanes at existing traffic signals	61	
Old Logan Rd/Addison Rd	Camira				62	
Old Logan Rd/Cochrane St	Camira				63	
Warwick Rd/Ash St/Saleyards Rd	Yamanto			64		
Cunningham Hwy/Ripley Rd	Flinders View			Upgrade interchange	65	
Old Logan Road/Kertes Rd/Mur Blvd	Camira			Install traffic signals	66	
Warrego Hwy/River Rd	Dinmore			67		
Pine St/The Terrace	North Ipswich			Reconfigure with traffic signals	68	
Warwick Rd/Salisbury Rd	Ipswich Central				69	
Wattle St/Dudleigh St	North Booval			Install roundabout	70	

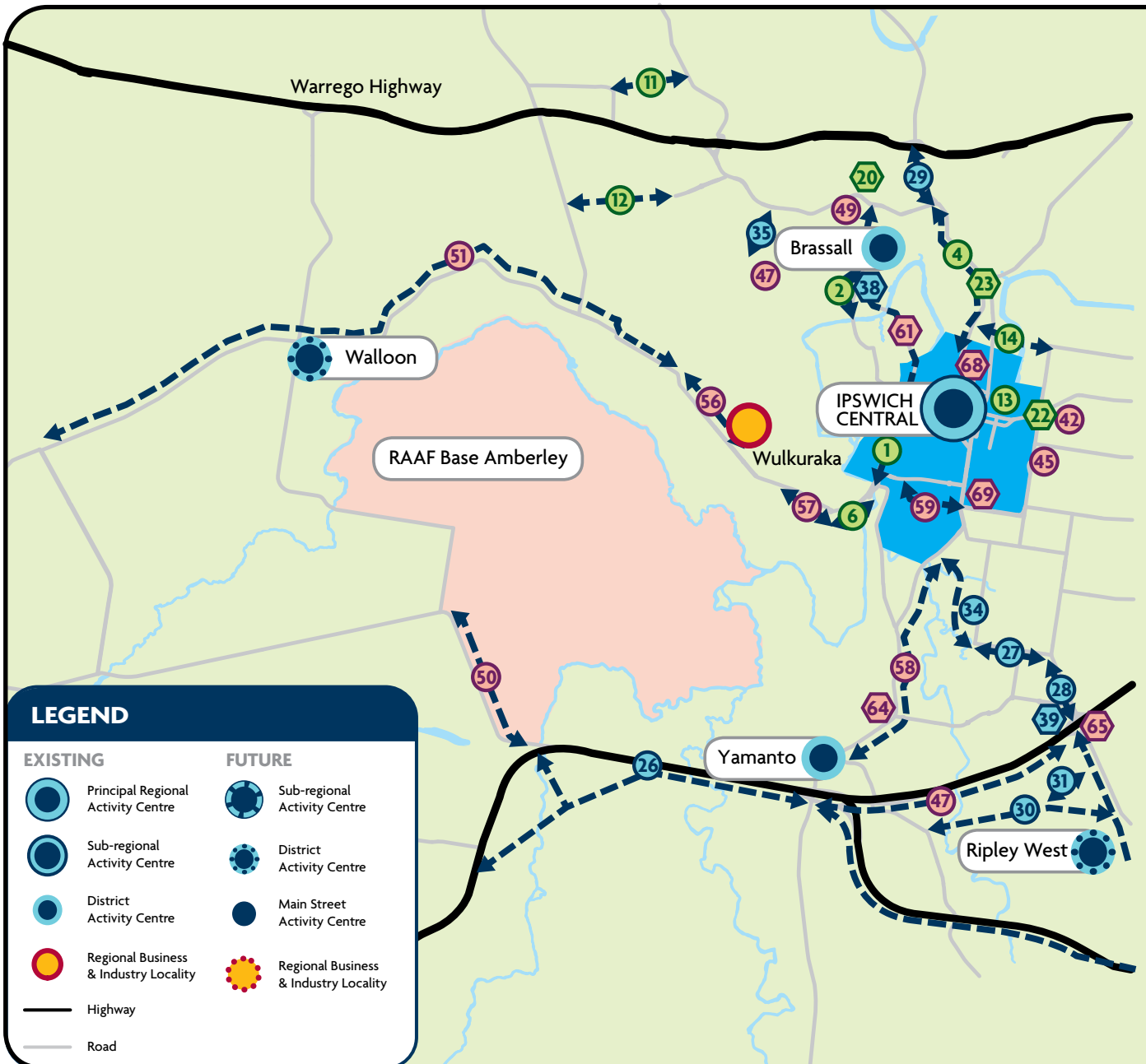
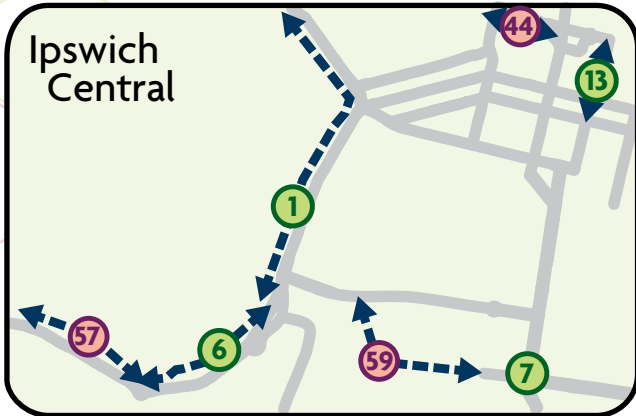
NOTE: All projects listed are subject to detailed corridor planning, engineering and environmental feasibility investigations and community engagement processes.



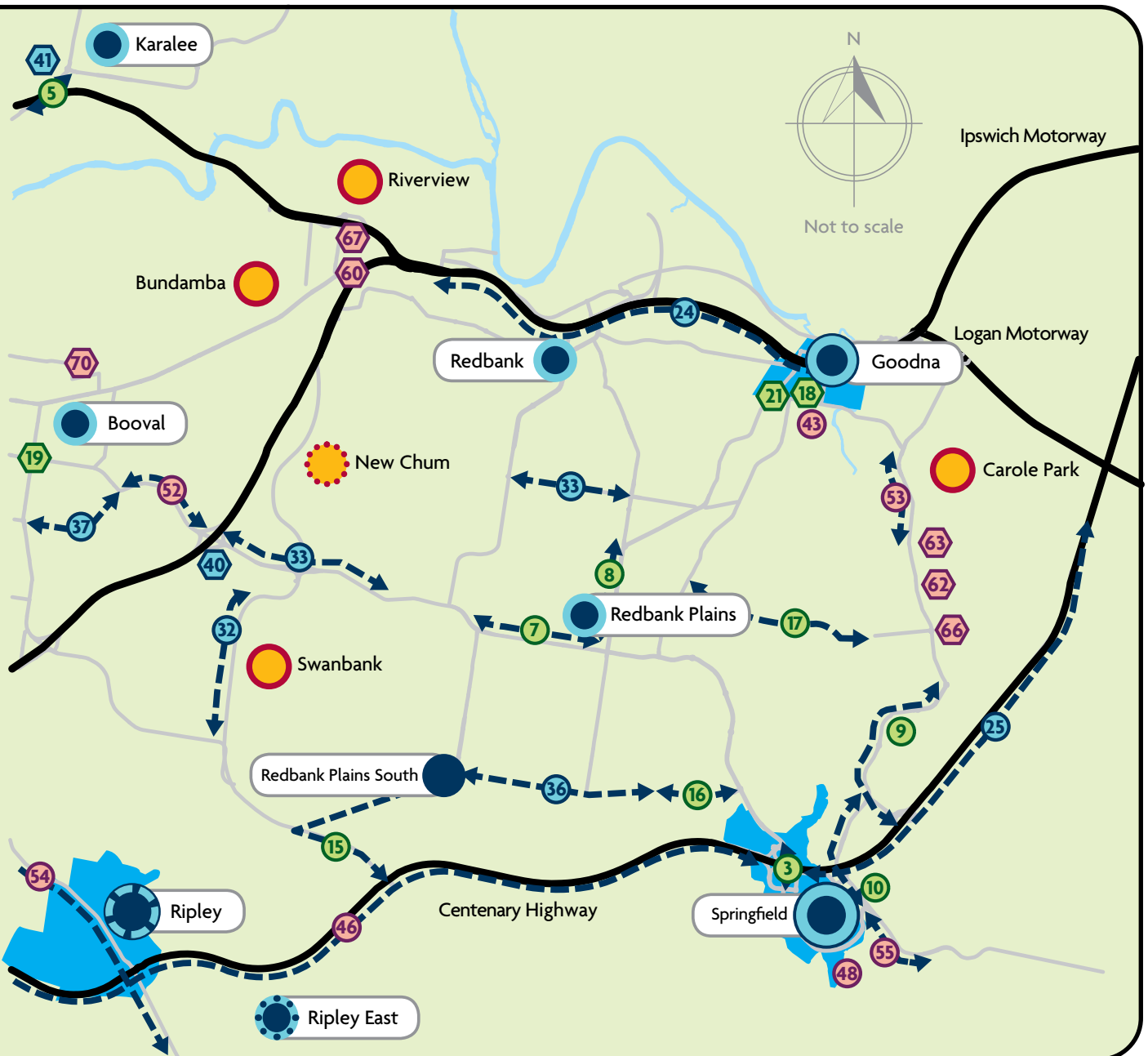
Map 8: Road Capacity and Connectivity Map



Road Capacity and Connectivity Map



* All route alignments and configurations shown are subject to future investigation and corridor planning.



Road Safety and Standard Upgrade Projects

Table 24: Road Safety and Standard Upgrade Projects Required by 275,000 Population

Road	Suburb	From	To	Works	Map Ref.
Grampian Drive	Deebing Heights	Pisale Drive	Winland Drive	Upgrade to urban road standards (2 lanes)	1
Halletts Road/Rice Rd/ Greenwood Village Rd	Redbank Plains	Six Mile Creek			2
Jacob Street - Pottery Road	Dinmore/New Chum	Aberdare Street	Old Ipswich Road		3
Jones Road	Bellbird Park/Goodna	Church Street	Augusta Parkway		4
Junction Road	Karalee	Torrens Street	A. Summervilles Rd		5
Keidges Road	Redbank Plains	Mt Juillerat Drive	Lillian Street		6
Redbank Plains Road	Swanbank to Redbank Plains	Newhill Drive	Six Mile Creek		7
Ripley Road	Ripley	Cunningham Highway	Fischer Road		8
School Road	Redbank Plains	Alawoona Street	Redbank Plains Road		9
Toongarra Road	Wulkuraka	Beirne Street	Karrabin - Rosewood Road		10
Briggs Road	Raceview	Parrot Street	Edwards Street	Pavement reconstruction	11
Toongarra Road	Wulkuraka	Aspinall Street	Beirne Street		12
Queen Street/Marburg - Fernvale Road	Marburg	Louisa Street	ICC boundary	Widen pavement	13
Alice Street	Goodna - Gables	Queen Street	Old Logan Road		14
Bayley Road	Pine Mountain	Brisbane Valley Highway	Cabernet Crescent	Undertake corridor safety improvements	15
Brisbane Terrace	Redbank - Goodna	Francis Street	ICC boundary		16
Fischer Road	Ripley/Flinders View	Ripley Road	Swanbank Road		17
Lobb Street	Churchill	Old Toowoomba Road	Warwick Road		18
Kholo Road	Chuwar/Muirlea	Cranes Road	Brisbane River		19
Pine Mountain Road	Pine Mountain	Warrego Highway	Russells Road		20
Railway Street/Rosewood - Thagoona Road	Rosewood to Thagoona	John Street	Thagoona - Haigslea Road		21
Riverside Drive	Muirlea	Kholo Road	Kholo Gardens		22
Swanbank Road	Swanbank	Fischer Road	Swanbank Coal Road		23
Taylor's Road	Walloon	Haigslea - Amberley Road	Caledonian Road		24
Wulkuraka Connection Road	Karrabin	Karrabin - Rosewood Road	Warrego Highway	25	

NOTE: All projects listed are subject to further detailed planning and feasibility investigations.

Table 24 (cont): Road Safety and Standard Upgrade Projects Required by 275,000 Population

Road	Suburb	From	To	Works	Map Ref.
Albert St/Alice St	Goodna	Intersection		Install traffic signals	
Albion St/Sydney St	Brassall				
Briggs Rd/Salisbury Rd	Eastern Heights				
Brisbane Rd/Gibbon St/Montauban St	East Ipswich - Newtown				
Brisbane St/Tiger St	West Ipswich				
Chermside Rd/Robertson Rd	Eastern Heights				
Collingwood Dr/Eagle St	Collingwood Park				
Old Logan Rd/Meier Rd/Moss Rd	Camira				
Redbank Plains Rd/Eagle St	Bellbird Park				
Redbank Plains Rd/Highbury Dr	Redbank Plains				
School Rd/Alawoona St	Redbank Plains				
School Rd/Cashmere St/Vicki St	Redbank Plains				
South Station Rd/Cascade St	Raceview				
Pine St/Lowry St	North Ipswich			Install roundabout	

Table 25: Road Safety and Standard Upgrade Projects Required by 350,000 Population

Road	Suburb	From	To	Works	Map Ref.
Blackstone Rd/Creek St/Sealy St	Silkstone	Intersection		Install roundabout	
Cobalt St/Johnson St	Carole Park				
Jacaranda St/Cook St	East Ipswich				
Jacaranda St/Cotton St/Leslie St	East Ipswich				
Kruger Pde/Duncan St/Namatjira Dr	Collingwood Park				
Mary St/William St	Blackstone			Install traffic lights	
Springfield Pwy/Topaz Rd/Woodcrest Way	Springfield				
Swanbank Rd/Fischer Rd	Flinders View				
Thorn St/Garden St	Ipswich				
Vogel Rd/Workshop St	Brassell				

Table 26: Road Safety and Standard Upgrade Projects Required by 435,000 Population

Road	Suburb	From	To	Works	Map Ref.
Aberdare St/Pottery Rd	Dinmore/New Chum	Intersection		Install traffic lights	
Augusta Pwy/Mount Jullierat Dr/Tournament Dr	Brookwater				
Darling St/Waghorn St	Ipswich Central				
Fernvale Rd/Diamantina Blvd	Brassall				
Redbank Plains Rd/Albert St	Goodna				
Robertson Rd/Grange Rd	Raceview				
School Rd/Halletts Rd	Redbank Plains				
South Station Rd/Swanbank Rd	Raceview				
Kruger Pde/Henderson St	Redbank			Install turning lanes	
Stuart St/Bellevue Rd	Goodna				

NOTE: All projects listed are subject to further detailed planning and feasibility investigations.



Road Safety and Standard Upgrade Map

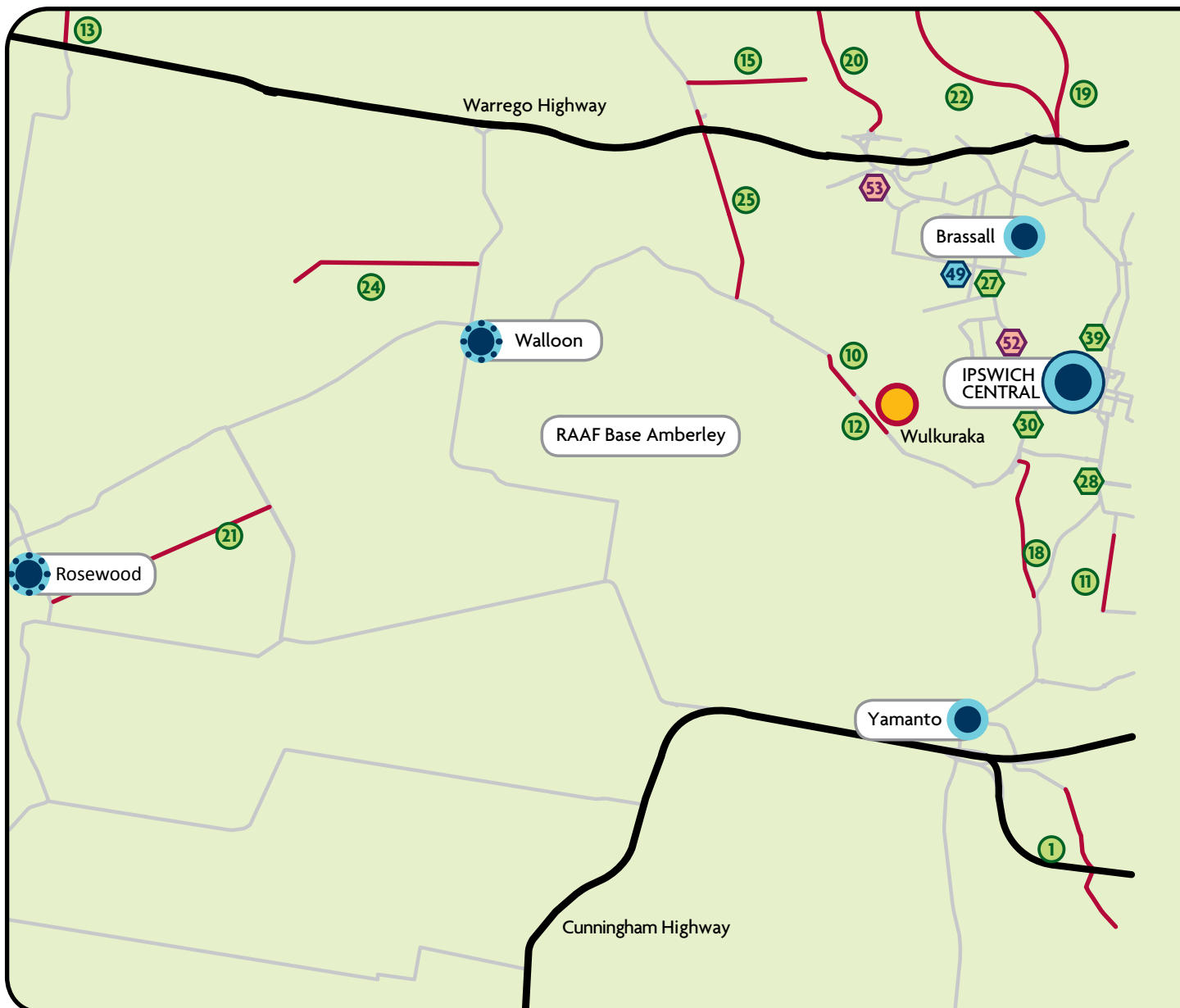
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EXISTING

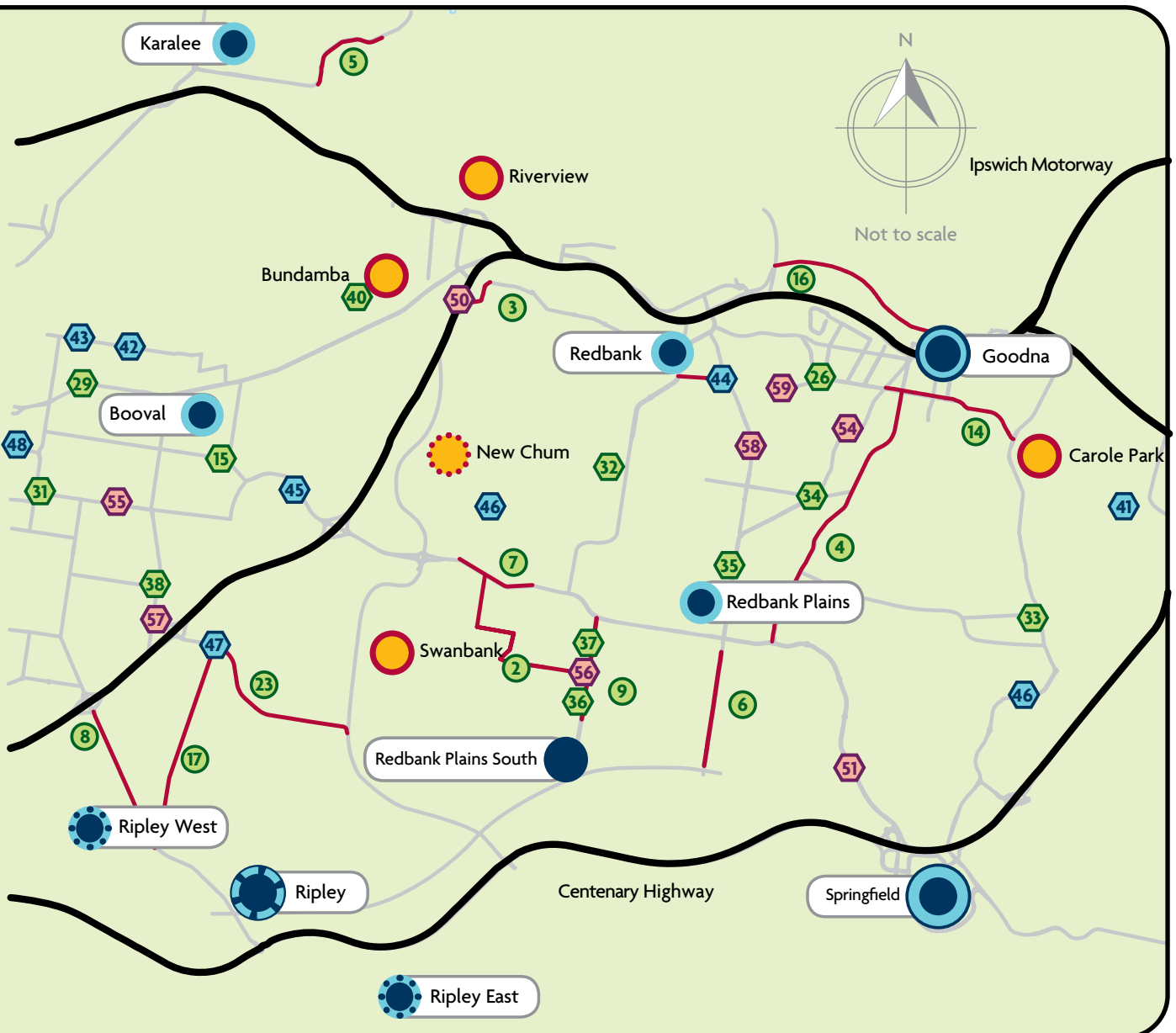
- Principal Regional Activity Centre
- Sub-regional Activity Centre
- District Activity Centre
- Regional Business & Industry Locality
- Highways
- Road
- Intersection
- Link
- City/Town Centres
- RAAF Amberley

FUTURE

- Sub-regional Activity Centre
- District Activity Centre
- Main Street Activity Centre
- Regional Business & Industry Locality
- Link



* All route alignments and configurations shown are subject to future investigation and corridor planning.



Future Corridor and Area Planning Projects

Table 27: Future Corridor and Area Planning Projects Required by 275,000 Population

Road	Suburb	From	To	Configuration	Lanes	Action	Map Ref.	
Binnies Road	Deebing Heights/Ripley	Pisasale Drive	Ripley Road	Upgrade to 4 lanes	4	Corridor Plan	1	
Brisbane Street (including Burnett Street bridge)	West Ipswich/Woodend	Darling Street	Hooper Street	4/6 lanes (boulevard treatment)	4		2	
Centenary Highway - Wensley Road Link	Ripley	Ripley Road	Centenary Highway	Arterial road + highway interchange	4		3	
Collingwood Drive	Collingwood Park	Namatjira Drive	Redbank Plains Road	4 lanes	4		4	
Cunningham Highway	Dinmore to Ripley	Ipswich Motorway	Ripley Road	Motorway standard	4/6		5	
Fischer Road	Flinders View/Ripley	Ripley Road	Swanbank Road	Upgrade to urban standards	4		6	
Goodna Bypass	Gailes to Dinmore	Logan Motorway	Warrego Highway	Motorway	4		7	
Jacaranda Street - Wattle Street - Hamilton Street Link	East Ipswich to Booval	Brisbane Road	Chermside Road	Part of the Ipswich City Centre Orbital Road System	4		8	
Kholo Creek Quarry Haulage Route	Chuwar	Warrego Highway	ICC Boundary	Regional haulage route	2		9	
Moggill Pocket Arterial Road	Karalee to Fig Tree Pocket	Warrego Highway	Western Freeway	Regional arterial road	4		10	
Monterea Road	Ripley	Binnies Road	Ripley Road	Upgrade to 4 lanes	4		Preserve	11
Mount Jullierat Drive	Augustine Heights to Swanbank	Augusta Parkway	New Hill Drive	4-lane sub-arterial road	4			12
New Hill Drive	Swanbank	Redbank Plains Road	Swanbank Road	Upgrade to 4 lanes	4			13
Pisasale Drive - Grampian Drive	Yamanto to Deebing Heights	Warwick Road	Winland Drive	Upgrade to 4 lanes	4			14
Ripley Valley Local Infrastructure Plan Road Network	Deebing Heights, Ripley, South Ripley	various		new trunk roads	4			15
School Road	Redbank Plains	Alawoona Street	Redbank Plains Road	Upgrade to 4 lanes	4			16
Springfield - Greenbank Arterial	Springfield Lakes	Grand Avenue	ICC Boundary	Upgrade to 4 lanes	4			17
Taylors Road	Walloon	Caledonian Road	Haigslea - Amberley Road	Urban standards	2			18
Tivoli - North Booval Link	Tivoli to North Booval	Mount Crosby Road	Jacaranda Street	North - south arterial road	2			19
Warrego - Cunningham Hwy Connection	Dinmore	Cunningham Highway	Warrego Highway	North - south arterial road	2/4			20
Warrego Highway	Dinmore to Blacksoil	Ipswich Motorway	Brisbane Valley Highway	Upgrade to motorway standard	4/6		21	
Western Ipswich Bypass	Haigslea to Amberley	Cunningham Highway	Warrego Highway	Bypass road	4		22	

Table 28: Future Corridor and Area Planning Projects Required by 350,000 Population

Road	Suburb	From	To	Works	Lanes	Action	Map Ref.
Augusta Parkway - Sinnathamby Boulevard	Brookwater/Springfield Central	Mount Jullierat Drive	Main Street	Possible 6 lane cross section	6	Investigate	23
Centenary Highway/ Keidges Road Interchange	Augustine Heights/ Redbank Plains	Aldinga Street	Centenary Highway	Possible new highway interchange and connection road	2/4		24
Centenary Highway Extension	Yamanto to Amberley	Centenary Highway	Cunningham Highway	Possible highway extension	4		25
Chermside Road	Eastern Heights to East Ipswich	Jacaranda Street	Salisbury Road	Part of the Ipswich City Centre Orbital Road System	4		26
Darling Street East	Ipswich Central/ Woodend	Burnett Street	Ellenborough Street	East-west link on the periphery of the Ipswich CBD Core	4		27
David Trumpy Bridge - Warwick Road Link	Ipswich Central	Gordon Street	Bremer Street	North-south link on the periphery of the Ipswich CBD Core	4		28
Ebenezer - Ripley Link	Ebenezer to Ripley	Cunningham Highway	Grampian Drive	East-west commuter link road	2		29
Ebenezer Regional Industrial Area	Ebenezer	Cunningham Highway	Cunningham Highway	Arterial road system as per land use master plan	4		30
Ipswich Orbital Road System West	Brassall to West Ipswich (via Wulkuraka)	Albion Street	Hooper Street	Possible part of the Ipswich City Centre Orbital Road System	2/4		31
Junction Road - Moggill Pocket Arterial Road - Lewis Drive Link	Karalee	Moggill Pocket Arterial Road	A.Summervilles Road	New road link	2		32
New Smith Drive on-ramp to Centenary Highway	Camira/Springfield	New Smith Drive	Centenary Highway	Road extension onto the Centenary Highway	1		33
Newhill Drive	Swanbank	Centenary Highway	Swanbank Road	New north-south industrial arterial road	4		34
Ripley - Swanbank Link	Ripley to Swanbank	Ripley Road	Newhill Drive	Industrial/ commuter link road	2/4		35
Robertson Road	Eastern Heights	Chermside Road	South Station Road	Possible part of the Ipswich City Centre Orbital Road System	4		36
Roderick Street	Ipswich Central	Omar Street	South Station Road	East-west link on the periphery of the Ipswich CBD Core	4		37

Table 29: Future Corridor and Area Planning Projects Required by 435,000 Population

Road	Suburb	Action	Map Ref.
Ipswich City Centre	Ipswich Central, North Ipswich, West Ipswich	Area Master Plan	38
Springfield Town Centre	Springfield Central		38
Goodna Town Centre	Goodna		38
Ripley Town Centre	Ripley		38
Walloon - Thagoona Growth Area	Walloon, Thagoona		38
Rosewood Growth Area	Rosewood		38



Future Road Corridor and Area Planning Map

LEGEND

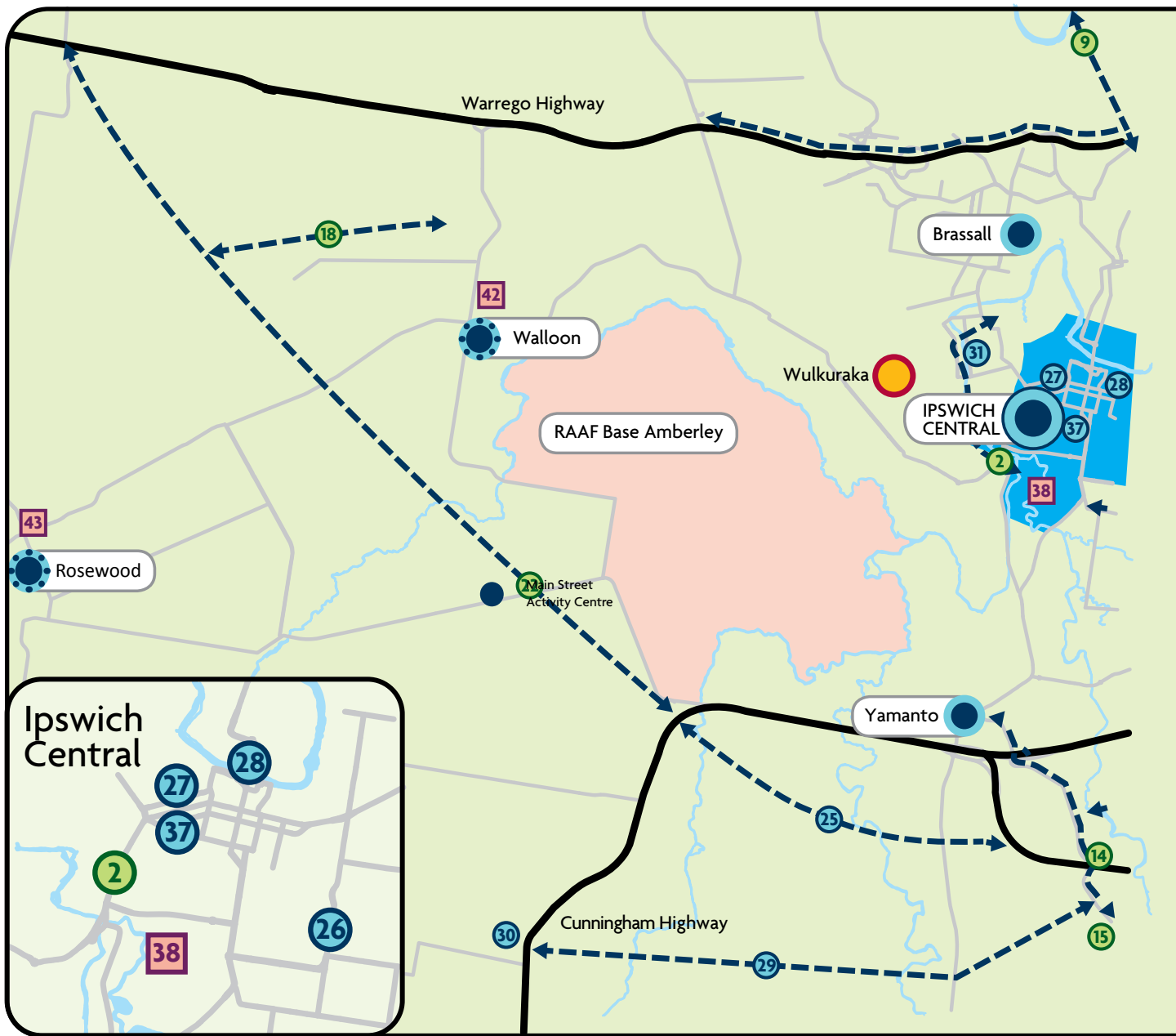
EXISTING

- Principal Regional Activity Centre
- Sub-regional Activity Centre
- District Activity Centre
- Regional Business & Industry Locality

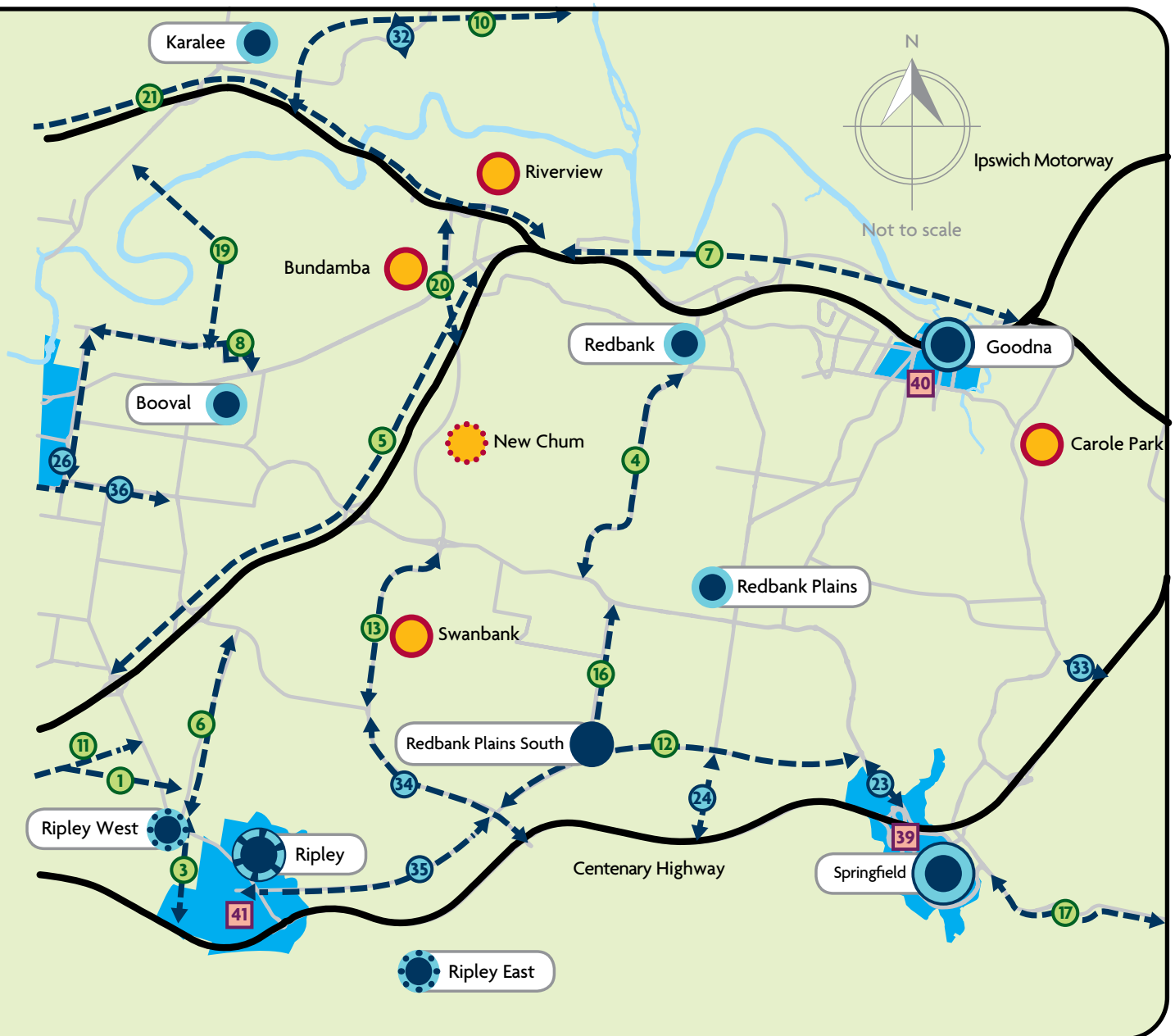
- Highways
- Road
- City/Town Centres
- RAAF Amberley

FUTURE

- Sub-regional Activity Centre
- District Activity Centre
- Main Street Activity Centre
- Regional Business & Industry Locality
- Corridor



* All route alignments and configurations shown are subject to future investigation and corridor planning.





**BLOCK
LIMIT**

BC 16

EXIT
ATP TERRITORY
150m FROM TOS

FREIGHT

Introduction

Ipswich has 42% of the available business and industry land in South East Queensland. Ipswich is also located at the confluence of two principal freight routes; between Brisbane and Sydney; and Brisbane and the Darling Downs, Surat Basin and Melbourne. Thus, Ipswich needs to support the provision of a safe and effective freight network.

Through the use of trucks, trains, ships and aircraft, the freight industry brings food to our dinner tables, transports goods to our homes, carries raw materials and components to our factories and supplies bulk materials to foreign markets⁷. As such, freight and the resiliency and efficiency of the freight network impacts on all of our lives.

To support Ipswich's forecast population growth and meet the current and future freight demands on its transport network, it is important to plan for an effective freight network. Particularly as freight volumes in Queensland are estimated to double over the next decade⁸.

It is acknowledged that increases in freight volumes and routes present many complex challenges, particularly in regards to environmental, safety and community amenity impacts. Being able to effectively balance these issues with the freight task is critical to Ipswich's overall sustainable transport future.

There are multiple stakeholders involved in the management of the freight network. When, where and why freight moves and the mode or modes which move it are generally determined by the freight industry⁸. The Australian and Queensland Governments play a major role in managing the transport system on which freight relies including infrastructure (e.g. rail network and State-controlled roads) and the policies and regulations that influence the movement of freight.

Council's freight role involves planning and managing the local road network that connects with strategic freight routes and locating land uses that generate and support freight via land use planning and development assessment processes.

Achieving the full potential of Ipswich's freight future will involve partnerships between all levels of government, industry and the community to provide 'places for freight'⁹, manage freight movements and mitigate adverse freight impacts.

7 Pricewaterhouse Coopers. Meeting the 2050 Freight Challenge. (Sydney: Pricewaterhouse Coopers Australia. 2009).

8 Department of Transport and Main Roads. Moving Freight: A Strategy For More Efficient Freight Movement. (Brisbane: The State Government of Queensland. 2013).

9 & 10 Standing Council on Transport and Infrastructure. National Land Freight Strategy: A Place for Freight. (Canberra: Commonwealth of Australia. 2012).



Existing Situation

Ipswich caters for 'freight through traffic' requirements (e.g. trips through Ipswich on the way to and from the Port of Brisbane, Brisbane Airport, metropolitan freight hubs etc.) and 'freight access requirements' (e.g. Ipswich freight generating, supporting or attracting land uses and businesses).

Rail Freight Route

The rail line through Ipswich (Ipswich/Rosewood Line) carries freight rail traffic. This line provides an important regional connection between the agricultural and resource areas to the west (e.g. Darling Downs and the Surat Basin) and Brisbane (including the Port of Brisbane).

Freight carried on this line comprises of grain, livestock, cotton and coal. These freight movements are subject to seasonal variation and shipping availability.

There were just over 8,750 freight rail movements through Ipswich in the 2014/2015 financial year. This equates to an average of 24 freight trains per day (i.e. loaded and unloaded). Of these freight train movements, 93% were carrying coal.

Principal Road Freight Routes

The following principal (inter-regional) road freight routes traverse Ipswich:

- Brisbane – Sydney (via the Ipswich Motorway and the Cunningham and New England Highways)
- Brisbane – Melbourne (via the Ipswich Motorway and the Warrego and Newell Highways)
- Brisbane – Darwin (via the Warrego Highway)

Secondary Road Freight Routes

The following secondary road freight routes traverse Ipswich:

- Centenary Highway (Springfield to Yamanto)
- Centenary Motorway (Springfield to city boundary)
- Ipswich/Rosewood Road and Haigslea-Amberley Road (Haigslea to Amberley)
- Logan Motorway (Gailes to city boundary)
- Champions Way, Willowbank
- Cobalt Street, Carole Park
- Francis Street/Monash Road, Redbank
- Redbank Plains Road, Swanbank
- River Road - Aberdare Street - Chum Street, Dinmore/ New Chum
- Swanbank Road, Flinders View/Swanbank
- Wulkuraka Connection Road - Karrabin-Rosewood Road - Toongarra Road, Karrabin/Wulkuraka

"Queensland's freight network fulfils a critical role linking communities and local industry, regions and the State to the rest of Australia and overseas."

Moving Freight

Queensland Department of Transport and Main Roads



Land Uses

Ipswich contains about 8,000 hectares (ha) of land designated in the *Ipswich Planning Scheme* for regionally significant industry and business land uses. This represents 42% of the available industrial land in South East Queensland. These areas are outlined in Table 30.

Of this land, only about 3,000ha is currently in use for industrial purposes.

Further, about 47,000ha of land in Ipswich is designated in the *Ipswich Planning Scheme* for rural purposes.

Both land uses generate freight movements on the road network. However, there is evidence to suggest that most freight movements in Ipswich are generated by land uses in Carole Park, Redbank and Swanbank.

Table 30: Regional Business and Industry Areas in Ipswich - existing, emerging and planned.

Area	Location
East	Carole Park Redbank
Central	Bundamba Dinmore New Chum Riverview Swanbank
West	Ebenezer Wulkuraka



Heavy Vehicle Regulation

The National Heavy Vehicle Regulator (NHVR) is Australia's independent regulator of all vehicles greater than 4.5 tonnes in mass. It was established in 2014 under the auspices of the Council of Australian Governments (COAG) to administer one set of laws for heavy vehicles across the nation called the Heavy Vehicle National Law (HVNL).

The aim of the NHVR is to improve safety and productivity, minimise the compliance burden on the heavy vehicle transport industry and reduce duplication and inconsistencies across state borders.

Heavy vehicles with regulated access to the road network include (but not limited to):

- B-Double trucks;
- Buses >12.5m in length (e.g. long distance coaches);
- Car and livestock carriers;
- Crane and drilling trucks;
- Vehicles carrying large agricultural and mining equipment;
- Vehicles facilitating the relocation of a house; and
- Performance-Base Standard (PBS) Vehicles – trucks that are designed to provide higher levels of productivity (loads and speeds).

The NHVR issues permits for the use of certain routes by certain vehicles in consultation with the relevant road manager.



In order to fast track the assessment process for certain classes of vehicle, Council has set up pre-approved routes on roads that can appropriately cater for freight traffic (i.e. in regionally significant industry and business areas). These routes are based on the acceptable category (or categories) of vehicles and declaration of routes and/or areas on which the specified vehicles are able to operate. For example, Council has identified various streets in Carole Park, Redbank and New Chum as pre-approved routes for over size/over mass vehicles with a range of dimension and mass limits appropriate to the location. Heavy vehicle access consent requests that comply with these pre-approved routes are processed by the NHVR and the relevant road manager is notified when a permit has been issued.

Council continues to assess its transport network to identify opportunities for pre-approved routes for appropriate vehicle classes.

Further route information for a range of vehicle classes can be found at gis.nhvr.gov.au/journeyplanner/

For those applications outside of the limits of pre-approved routes and which require more detailed assessment, consent can be provided for a single trip or for a specific period of time for a single operator. In some circumstances, this consent may require that travel conditions and road conditions be included.

Under the HVNL, on-road compliance and enforcement covers a broad range of activities including but not limited to:

- Prescribed work, rest, driver fatigue and work diary requirements;
- Vehicle standards heavy vehicles must meet when on roads;
- Maximum permissible mass and dimensions of heavy vehicle used on roads; and
- Loading and restraining of loads of heavy vehicles used on roads.

Opportunities

Ipswich has an opportunity to support the growing freight task and continue to develop ‘places for freight’.

Southern Freight Rail Corridor

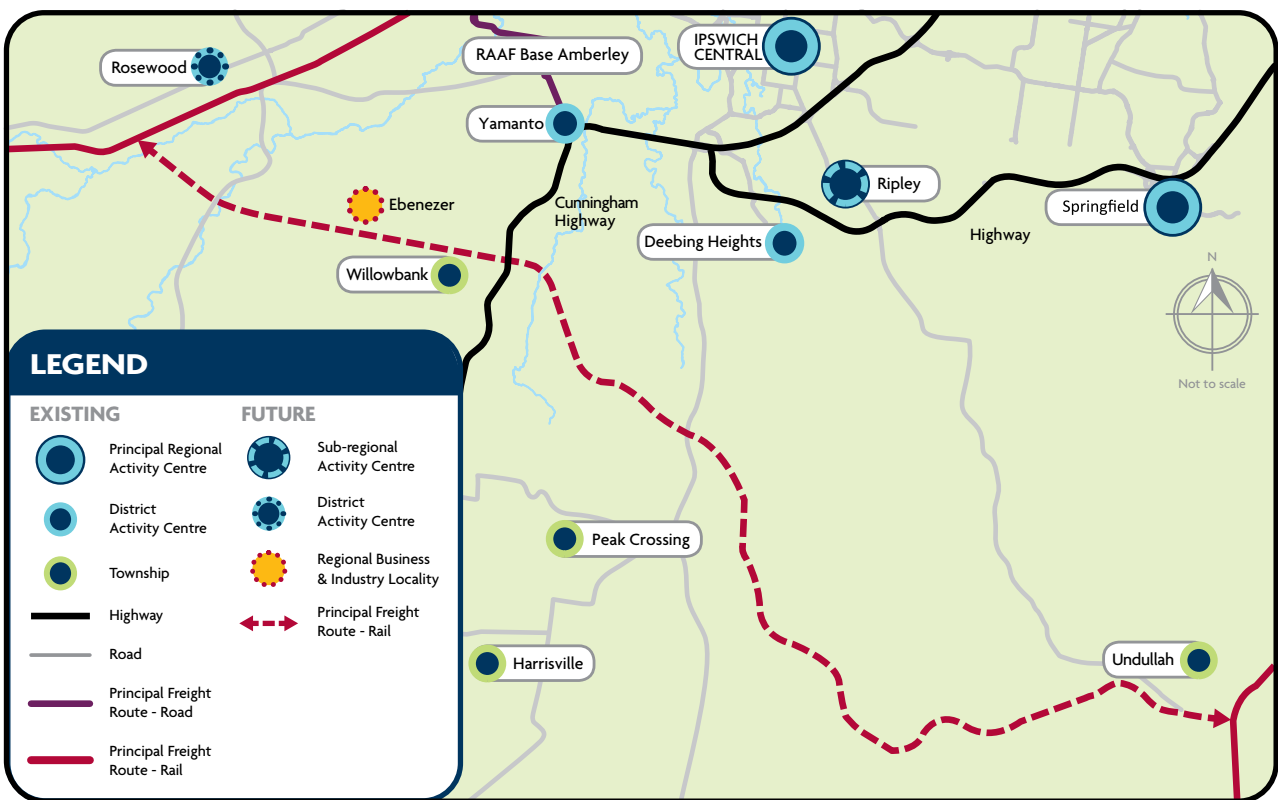
The Queensland Government has planned the Southern Freight Rail Corridor - a 55km ‘freight only’ railway line connecting the Ipswich/Rosewood line at Rosewood and the Brisbane - Sydney Railway Line at Kagaru - north of Beaudesert (refer to Map 11).

The Southern Rail Freight Corridor is a key opportunity to divert rail freight away from metropolitan areas, provide

an alternative route to existing freight centres at Acacia Ridge and the Brisbane Multimodal Terminal (Port of Brisbane) and link proposed logistics hubs and industrial developments at the Ebenezer (Ipswich) and Bromelton (Scenic Rim) areas via intermodal (rail/road) freight transfer facilities.

Further information on the Southern Rail Freight Corridor can be found at www.tmr.qld.gov.au

Map 11: Southern Freight Rail Corridor Map



* All route alignments and configurations shown are subject to future investigation and corridor planning.

Source: Department of Transport and Main Roads (2010), Southern Freight Rail Corridor Study



Inland Rail Project

The Australian Government has committed to building the Inland Rail Project over the next decade. The Inland Rail Project is a 1700km railway line linking Brisbane and Melbourne via central-west NSW and Toowoomba.

The preliminary route of the Inland Rail Project is outlined in Map 12, which includes 600km of new track. The planned Southern Rail Freight Corridor (between Rosewood and Kagaru) forms part of the Inland Rail Project's route.

The Inland Rail Project will provide a second rail link between Queensland and the southern states and allow double-stacked train travelling from Brisbane to Melbourne to bypass the busy Sydney network. Thus, transit time for rail freight between Melbourne and Brisbane will become competitive with road transport and therefore increase productivity.

Detailed corridor planning, environmental assessments and community consultation is currently being undertaken by the Australian Rail Track Corporation (the project manager).

Further information on the Inland Rail Project can be found at www.artc.com.au

Inland Port

As part of Council's land-use planning and the Southern Freight Rail Corridor, an 'inland port' is planned for the Ebenezer Regional Industrial Area. The inland port will be a large intermodal (rail/road) freight transfer facility located just to the south of the existing Ipswich Motorsport Precinct at Willowbank and in close proximity to the Cunningham Highway.

Redbank 'Industrial Area'

The Redbank industrial area provides an opportunity to establish a regionally significant transport, logistics and distribution 'hub' given its location and proximity to the Ipswich Motorway, other regional roads (existing and future) and the Ipswich/Rosewood railway line. Some major private sector transport and logistics enterprises are already established in the area which will act as catalysts for further development of this industry sector in Redbank.

Western Ipswich Bypass

The Queensland Government has planned a new road linking the Warrego Highway at Haigslea with the Cunningham Highway at Willowbank via Walloon and Amberley.

A longer term road network solution, the Western Ipswich Bypass, will complete a system of high order roads around the periphery of the central part of Ipswich and provide quality access for freight travelling to and from the RAAF Base at Amberley, the planned Ebenezer Regional Industrial Area and the emerging Swanbank Enterprise Park.

Connecting SEQ 2031 also identifies the need to investigate a possible extension from the Western Ipswich Bypass at Amberley through Purga to the Centenary Highway at Deebing Heights to function as a secondary road freight route.

Further information on the Western Ipswich Bypass can be found at www.tmr.qld.gov.au

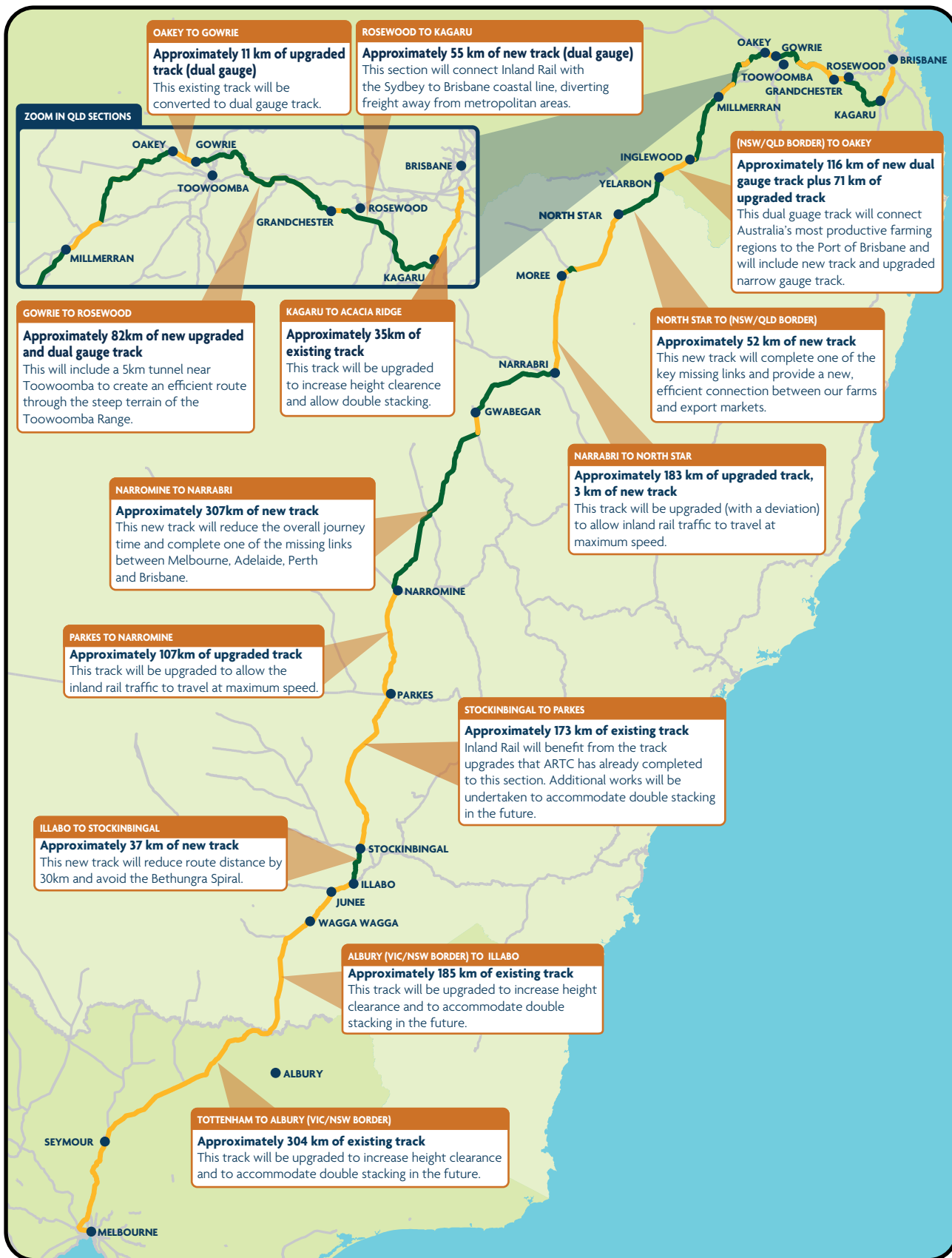
Warrego to Cunningham Highway Connection

The Warrego and Cunningham Highways are currently linked via the state-controlled roads of River Road and Aberdare Street at Dinmore. These roads function as a freight route between the two highways as well as providing freight access to nearby industrial land uses including the JBS Australia meat processing facility at Dinmore and the Stanwell Corporation electricity generation facility at Swanbank.

The Queensland Government has planned a new road linking the Warrego Highway at Dinmore with the Cunningham Highway at New Chum.

Further information on the Warrego to Cunningham Highway Connection Road can be obtained by contacting the Queensland Department of Transport and Main Roads.

Map 12: Melbourne - Brisbane Inland Rail Alignment 2015



Source: Department of Infrastructure and Regional Development (2015), Inland Rail: A New Rail Connection Between Melbourne and Brisbane

Goodna Bypass

The Queensland Government has planned and is preserving the 'Goodna Bypass', a new high order road linking the Warrego Highway at Dinmore and the Ipswich Motorway and the Logan Motorway at Gales. Its aim is to provide additional longer term capacity and resilience for the Ipswich Motorway between Dinmore and Gales, particularly for freight.

Further information on the Goodna Bypass can be found at www.tmr.qld.gov.au

Enhancing Existing Principal Road Freight Routes

The principal freight routes traversing Ipswich (the Ipswich Motorway, Warrego Highway and Cunningham Highway) provide excellent opportunities to provide for both inter-regional through freight movements and quality access to/from current, emerging and planned regional business and industrial precincts in Ipswich. Safety, capacity and legibility enhancements to these routes will be required over the life of iGO and beyond to ensure they continue to function as quality principal freight routes.

Future Secondary Road Freight Routes

Ebenezer Regional Industrial Area

The *Ebenezer Regional Industrial Area Implementation Guide* prepared by Council has identified an indicative network of four lane arterial roads to serve the future primary freight access requirements of this area. Further detailed corridor planning is required for this planned road network to identify its routes, configuration and feasibility.

Swanbank – New Chum Enterprise Park

The *Swanbank – New Chum Enterprise Park Master Plan and Implementation Guide* has identified the need for a new industrial standard road linking Cunningham Highway at Blackstone in the north with the Centenary Highway at Swanbank in the south via Redbank Plains Road, Newhill Drive and Swanbank Coal Road to provide for the expansion of these regional business and industry areas. Further detailed corridor planning is required for parts of this planned road link to identify its route, configuration and feasibility.

Ipswich City Centre Orbital Road System

The planned Ipswich City Centre Orbital Road System (refer to the iGO Roads section p.96 for more information) will provide a longer term solution for local freight movements travelling between suburbs and accessing the Ipswich City Centre. In particular, the Norman Street Bridge, which forms part of the orbital road system, will encourage heavy vehicle movements out of the core of the Ipswich City Centre.

Kholo Creek Hard Rock Resource Haul Route

A future extractive industry (quarry) resource has been identified north-east of Lake Manchester adjacent to Brisbane Forest Park, north of Ipswich, which is regionally significant and economically important to the future development of South East Queensland. Referred to as the Kholo Creek Hard Rock Resource, the Queensland Government has identified a preferred haulage route between the Warrego Highway and the resource site via Chuwar.

"Without trucks, Australia stops."

National Road Freighters Association

Trucking advocacy organisation



The haulage route corridor will be preserved through development until such time as the Kholo Creek Hard Rock Resource becomes operational.

Further information on the Kholo Creek Hard Rock Resource can be found by contacting the Queensland Government's Department of Infrastructure, Local Government and Planning.

Regional Business and Industry Land Use Areas

As mentioned previously, there is approximately 8,000 hectares of land designated in the *Ipswich Planning Scheme* for 'Regional Business and Industry' land uses, of which approximately 5,000 hectares is currently used for non-industrial purposes.

Given the amount of land zoned for industrial purposes, current, emerging and future, opportunities exist for Ipswich to become a 'place for freight.'

Higher Productivity Heavy Vehicles

Higher Productivity Heavy Vehicle (HPHV) combinations offer opportunities for increases in productivity and efficiency for freight operators¹¹. Encouraging industry to design their infrastructure (i.e. buildings, loading/unloading points, car parks etc.) and use these types of vehicles, particularly Performance Based Solution (PBS) vehicles, can offer a range of benefits such as enhanced safety through safer vehicle design, increased efficiency on the existing transport network, reduced environmental impacts and lower transport costs etc¹².

The PBS Scheme offers the heavy vehicle industry some freedom from conventional mass, dimension and configuration constraints and the potential to achieve higher productivity and safety through innovative and optimised vehicle design¹³. The proposed vehicle design must be assessed and approved against 16 safety-related and four infrastructure-related performance standards before road access is granted.

It must be noted that HPHVs pose engineering challenges and expenses for the transport network and can increase the need for improvements to a route (e.g. strengthening pavements, widening intersections to allow for large vehicle movements and enabling bridges to carry extra weight)¹⁴. However, the alternative of constantly building new roads or widening existing road networks to cater for congestion has its own disadvantages.

Intelligent Access Program

The Intelligent Access Program (IAP) is a national program which uses satellite tracking and wireless communication technology to remotely monitor where, when and how heavy vehicles are being operated on the road network. In Queensland, the IAP is mandatory for higher mass limits and is available for some special purpose vehicles, for non-standard freight vehicles and PBS vehicles.

While this system is currently used to assist with access conditions compliance, encouraging its wider use within the freight industry presents an opportunity to better capture freight trip information. This will enable Council to make more informed decisions regarding freight infrastructure investment in Ipswich.



¹¹ 'Moving Freight: A strategy for more efficient freight movement', Department of Transport and Main Roads, December 2013

¹² 'National Land Freight Strategy: A Place for Freight', Standing Council on Transport and Infrastructure, Commonwealth of Australia, 2012

¹³ 'Moving More with Less' VicRoads

¹⁴ 'National Land Freight Strategy: A Place for Freight', Standing Council on Transport and Infrastructure, Commonwealth of Australia, 2012



Challenges

There are challenges confronting the freight task in Ipswich and integrated solutions will be the key to alleviating them.

Congestion

Up to 10% of a product's final cost (and carbon footprint) is derived from its transportation¹⁵. However, congestion from population growth and increasing numbers of single occupancy private vehicles in metropolitan areas is becoming an increasingly common and persistent challenge to achieving freight transportation efficiencies¹⁶.

Further, freight vehicles themselves also contribute towards this congestion. Consequently, promoting sustainable travel behaviours for metropolitan residents, facilitating the transition of road freight to rail freight where possible and supporting the use of HPHV's for road freight will be a key to helping address this challenge.

'First and Last Mile' Issues

Efforts in the past to accommodate population growth and residential demand has led to planning decisions which are now creating conflicts for the existing freight network¹⁷. Further, freight planning has not always been well integrated with other land use, transport or strategic frameworks¹⁸. This has resulted in challenges, particularly where freight interacts with the urban environment.

The very beginning and very end of a freight trip, referred to as the 'first and last mile', does not typically occur on a strategic freight route. It occurs on the local road network, sometimes through residential areas. Subsequently, 'first and last mile' issues for the freight industry can occur when access to the local road network by heavy vehicles is restricted.

There are many valid reasons why heavy vehicle access along a local road may be restricted. Some of these reasons include:

- Concerns regarding the amenity impacts of noise and air pollution on the local community, hours of operation and the general safety of heavy vehicles in residential areas¹⁹;
- Inability for the existing local road network to accommodate the freight vehicle type (i.e. road geometry, bridge load limits etc.); and
- Damage caused by the freight vehicles to the local road network and ability to obtain funding to repair the damage.

However, impacts of these restrictions can include but are not limited to:

- Higher transport costs for the freight industry. For example, the additional cost of hiring three small trucks for the 'first and last mile' instead of being able to use one large truck (HPV) for the entire trip;
- Additional trips on the local road network. For example, by using three small trucks for the 'first and last mile' instead of one large truck (HPV) for the entire trip;
- Impact on business operating hours. For example, a business operates 24 hours per day yet access to the business via the local road is not permitted from 7pm to 7am; and
- Impact on business competitiveness. For example, the economic viability of the business is impacted by restrictions (i.e. permitted access hours, vehicle type, load type etc.) that may not apply to another business in an alternate location.

15 Pricewaterhouse Coopers. Meeting the 2050 Freight Challenge. (Sydney: Pricewaterhouse Coopers Australia. 2009).

16 Department of Transport and Main Roads. Moving Freight: A Strategy For More Efficient Freight Movement. (Brisbane: The State Government of Queensland. 2013).

17 Standing Council on Transport and Infrastructure. National Land Freight Strategy: A Place for Freight. (Canberra: Commonwealth of Australia. 2012).

18 Department of Transport and Main Roads. Moving Freight: A Strategy For More Efficient Freight Movement. (Brisbane: The State Government of Queensland. 2013).

19 Standing Council on Transport and Infrastructure. National Land Freight Strategy: A Place for Freight. (Canberra: Commonwealth of Australia. 2012).

'First and last mile' issues can also occur on railways where freight rail services move over railway lines in metropolitan areas that also cater for passenger rail services. Issues can include noise complaints, limitations on transport of dangerous goods and line priority for passenger rail services.

Being able to effectively balance freight efficiency issues along with community amenity, safety and environmental expectations is critical to Ipswich's overall freight future. It is also recognised that a variety of mechanisms are required to achieve this. These mechanisms will range from integrated transport and planning processes (capital works and development assessment), to charging reforms and case by case assessment of localised issues.

Community Awareness

Freight is usually involved 'behind the scenes' and as a result, there is a shortfall in community awareness of the importance and complexity of the freight industry²⁰. For example, freight hubs and ports are rarely visited by the general public and it is often taken for granted that fruit and vegetables are available all year round at supermarkets and that products from around the world can be delivered to doorsteps for minimal cost and delay (e.g. Amazon and eBay).

Indeed, freight generally only comes to the forefront when transport systems become congested, public safety is put at risk, freight infrastructure impinges on residential development or supply chains are broken and products are unavailable due to such things as extreme weather events or freight network capacity issues²¹. Raising community awareness of the role that freight plays in our society outside of these events is a relevant component to Ipswich being able to support freight industries and their requirements to meet current and future demand.

Compliance and Enforcement

A constant challenge for road authorities is the unauthorised movement of heavy vehicles on the local road network and the parking of heavy vehicles in residential areas.

Under Council's local laws, heavy vehicle operators require a permit to park a heavy vehicle on a residential property that is located within 100 metres of another residential property.

The Queensland Government (via the Police and the Department of Transport and Main Roads transport inspectors) enforce heavy vehicle laws.

A way forward to better controlling these unauthorised movements on the local road network will involve greater collaboration and partnerships with these agencies.

"Freight plays a vital role in all our lives, yet is often the forgotten piece of the transport debate."

Meeting the 2050 Freight Challenge
Price Waterhouse Coopers



20 & 21 Pricewaterhouse Coopers. Meeting the 2050 Freight Challenge. (Sydney: Pricewaterhouse Coopers Australia. 2009).

Policy Focus

To support Ipswich's population growth, current and future freight demands on the transport network and increase freight competitiveness, Council's freight policy focus areas are:

- Identify, plan and protect 'Places for Freight';
- Manage the safe and efficient movement of freight; and
- Supporting freight network enhancements

Identify, Plan and Protect 'Places for Freight'

This policy focus involves identifying and focusing freight supporting, generating and attracting development into the most appropriate areas of Ipswich and ensuring that access to these uses from primary and secondary freight routes is well-planned and protected for freight use (i.e. identifying and planning for 'first and last mile' pre-approved routes).

Achieving this policy focus will increase freight efficiencies and help alleviate adverse impacts on the freight industry by competing land use and transport users.

Manage the Safe and Efficient Movement of Freight

For 'first and last mile' freight movements outside of pre-approved freight routes on the local road network, Council is focused on providing a balance between freight efficiency and community safety, amenity and environmental expectations. This involves supporting the use of HPHVs where the existing transport infrastructure is appropriate, undertaking community freight awareness campaigns and continuing to assess and mitigate freight movements so that community impacts are minimised.

Supporting Freight System Enhancements

The Australian Government, Queensland Government and Freight Industry is focused on delivering streamlined, integrated and multi-modal transport and logistics systems capable of efficiently moving freight throughout Australia²².

Ipswich caters for freight routes and industries of national, state, regional and local significance. Supporting and contributing towards the development and continued enhancement of the strategic freight network will help deliver this goal and also drive Ipswich's freight future.

Actions

With regards to Ipswich's freight transport future, Council's prioritised way forward is outlined in Table 31 and Map 13.

"Over the last four decades, the Australian freight task has quadrupled with major increases evident in road and rail; a trend that is expected to continue."

National Land Freight Strategy 2012

Standing Council on Transport and Infrastructure



²² Standing Council on Transport and Infrastructure. National Land Freight Strategy: A Place for Freight. (Canberra: Commonwealth of Australia. 2012).

Table 31: Freight Actions

Action	Policy Focus			Timing
	Places for Freight	Manage Safe and Efficient Movement of Freight	Supporting Freight System Enhancements	
F1: Continue with the planning and development of the principal freight network in Ipswich. This includes the following projects: <ul style="list-style-type: none"> • Inland Rail Project/Southern Rail Freight Corridor (including the development of the Ebenezer intermodal freight hub - "Inland Port") • Western Ipswich Bypass and possible extension to the Cunningham Highway at Deebling Heights; and • Goodna Bypass; and • Warrego and Cunningham Highway Connection. 	✓		✓	O
F2: Continue to assess applications for restricted access heavy vehicles on the local road network having regard to the National Heavy Vehicle Regulator Approved Guidelines for Granting Access.		✓		O
F3: Continue to identify, plan for and protect future and existing 'places for freight' from competing and conflicting land use pressures through the <i>Ipswich Planning Scheme</i> and development assessment process.	✓	✓		O
F4: Continue to protect future and existing 'places for freight' from competing transport users through the support of transport planning projects which promote the use of public transport and active transport.	✓			O
F5: Promote the use of Performance Based Solutions (PBS) heavy vehicles to the freight industry and community and consider providing increased access to local roads to these types of vehicles, particularly in sensitive areas.		✓	✓	O
F6: Develop a <i>Freight Action Plan</i> which completes a strategic assessment of the existing and future local road freight network in Ipswich with the aim to improve freight local road access and support the use of Higher Productivity Heavy Vehicles to freight supporting, generating or attracting areas and businesses. This involves: <ul style="list-style-type: none"> • Compiling existing and future freight trip origin and destination data from DTMR and the freight industry (e.g. Intelligent Access Program); • identifying the local roads and types of heavy vehicles Council and the freight industry would like to use; and • the development of a list of prioritised freight local road access upgrades (e.g. pavement improvements, road geometry improvements etc.). 	✓	✓	✓	S
F7: Review the <i>Ipswich Planning Scheme</i> requirements for freight supporting, generating or attracting uses to ensure development designs support the use of Higher Productivity Heavy Vehicles.	✓			S
F8: Review Ipswich's pavement design (ESA) requirements for industrial roads to determine whether the current pavement design requirement are achieving the desired design horizon or require amendment in order to reduce Council maintenance costs.	✓			S
F9: Assess and identify additional Performance Based Solution (PBS) heavy vehicle pre-approved routes on the existing local road network in Ipswich.		✓	✓	S
F10: Work with DTMR transport officers and the Queensland Police to facilitate heavy vehicle compliance and enforcement in Ipswich.		✓		S
F11: Assess and identify Over Size Over Mass pre-approved routes on the existing and future local road network to support future designated regionally significant industry and business areas.	✓			M
F12: Develop design guidelines which facilitate both safe pedestrian crossings and heavy vehicle freight movements (e.g. removable traffic islands and pedestrian refuges etc.).		✓		M
F13: Undertake a community education and awareness campaign on the importance of freight and its movements to Ipswich's sustainable transport future.	✓	✓	✓	M
F14: Investigate the viability of Over Size Over Mass vehicle escorts in order to ensure the protection of Council assets for portions of the trip undertaken on Council managed roads.		✓	✓	M

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

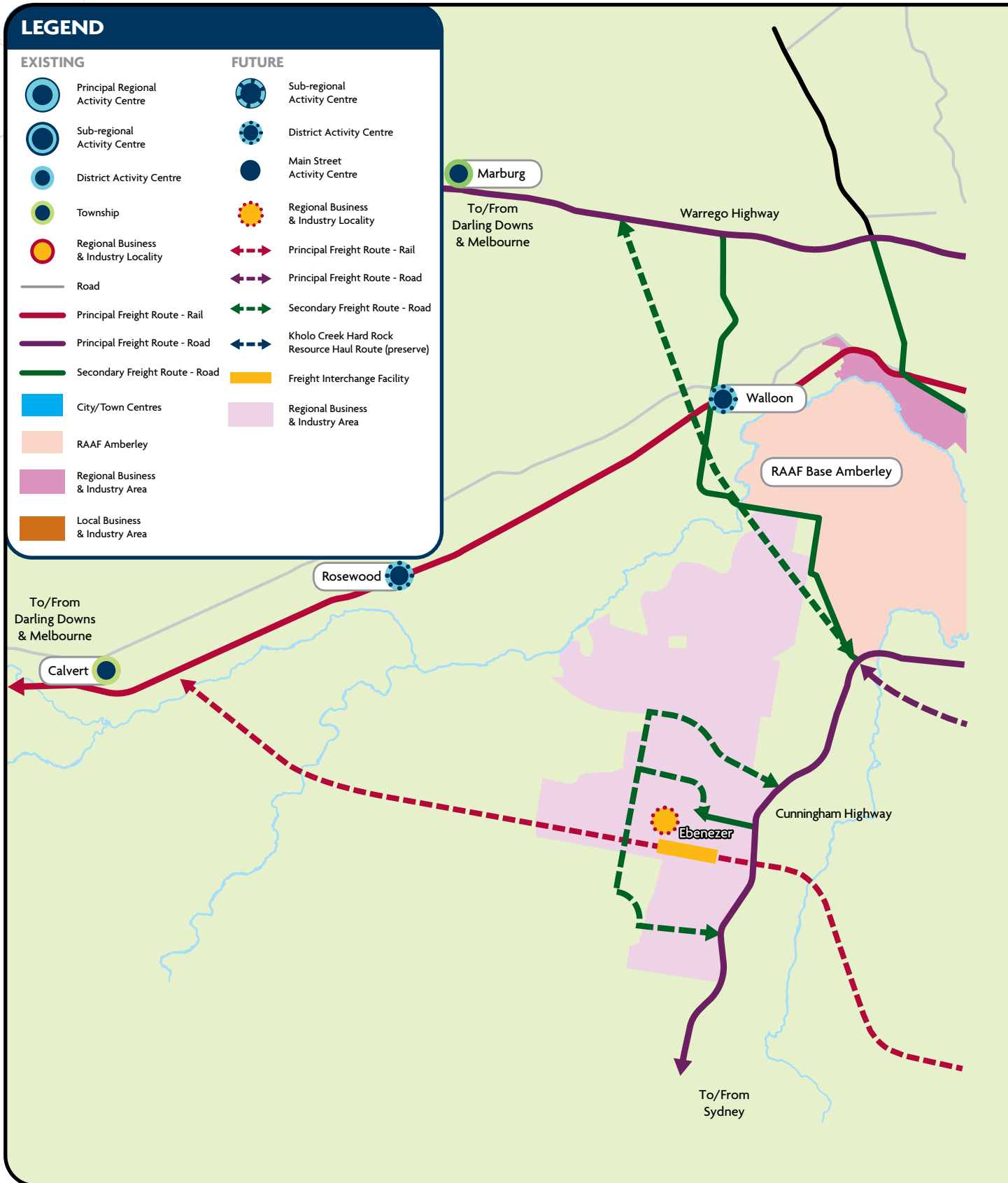
S = Short term (within the next 5 years or by 250,000 population)

M = Medium term (within the next 10 years or by 350,000 population)

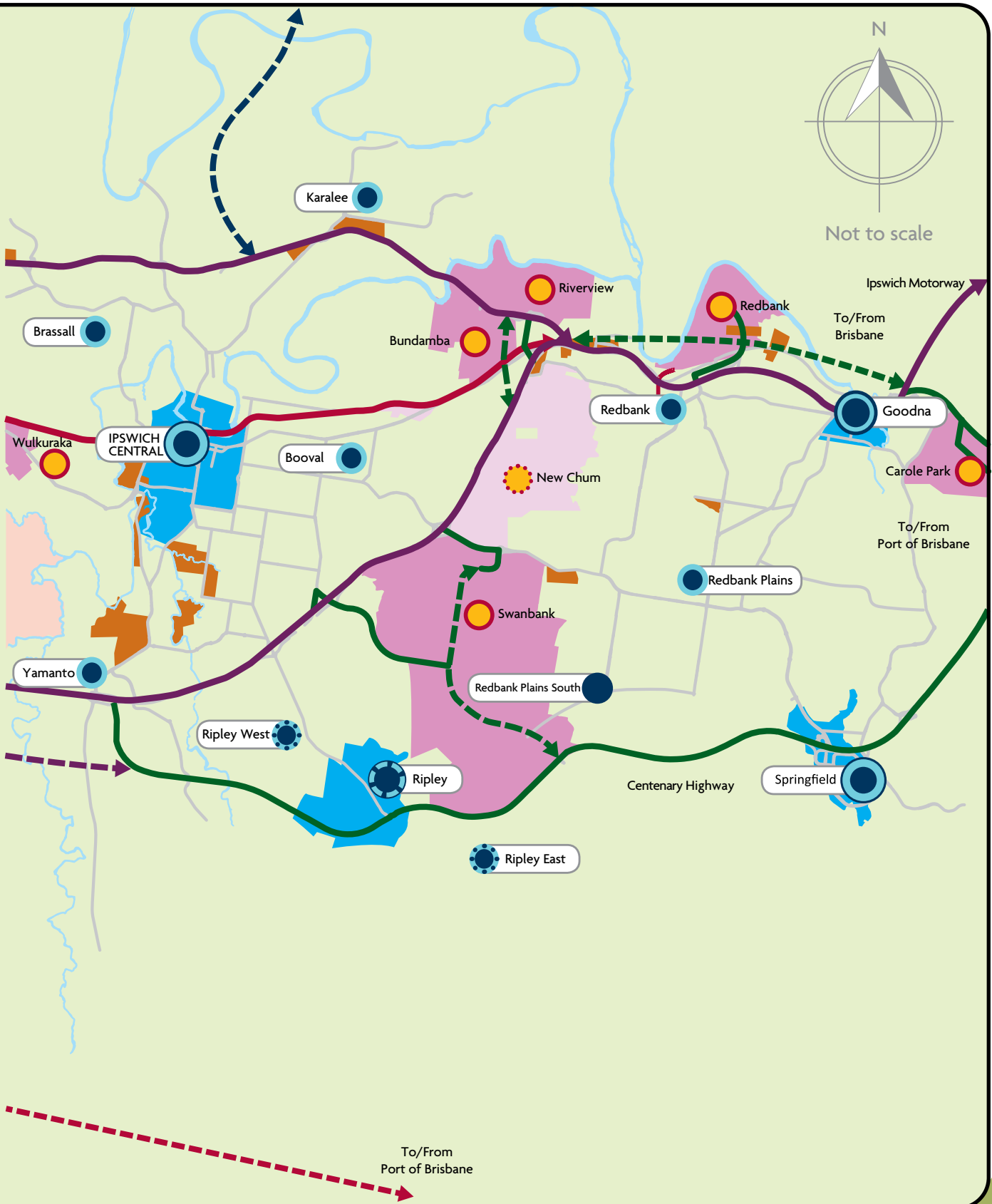
Map 13: Strategic Freight Corridor Map



Strategic Freight Corridor Map



* All route alignments and configurations shown are subject to future investigation and corridor planning.





PARKING

Introduction

Parking policies considerably affect the way cities operate and mature.

Car parking is always a topic of passionate discussion in the community. Everyone likes to get a park close to where they want to go and not have to pay for the privilege.

Parking policies can affect:

- Land use patterns (parking is a key link between transport and land use);
- Amenity of local streets;
- Public and active transport use; and
- Levels of car-dependence and traffic congestion.

Parking is a sensitive issue, especially for businesses who rely on customer access. So as the city evolves Council will need to take a more strategic approach to the provision, management and pricing of parking to ensure it is balanced with a sustainable transport future. This includes implementing a parking strategy with local area streetscaping and pedestrian improvement works in the Ipswich City Centre and other activity centres to ensure they are attractive and accessible places that invite people to visit and invest in them.

In the short term, the focus of Council's parking policies will be the Ipswich City Centre, which will then roll out to other activity centres (the Springfield Town Centre and Goodna) then other community facilities such as railway stations, schools and sporting venues.

"Our streets are congested, in part, by people who have gotten where they want to be but are cruising around looking for a place to park."

Donald Shoup

Economist, academic and author



Existing Situation

On-Street Parking

On-street parking is located throughout Ipswich servicing activity centres, industrial and residential areas, schools, parks, sports centres and other community facilities. Typically, on-street parking is provided free of charge or at low-cost in the Ipswich City Centre.

There is in the order of 2,200 formal on-street car parking spaces marked within the Ipswich City Centre of which about 700 are managed by parking meters with time limits ranging between one and nine hours. There are also many kerbside spaces within the Ipswich City Centre that are not formally marked, time restricted and/or metered.

In the Ipswich City Centre, on-street car parking is usually time limited between 8am and 5pm, Monday to Friday, and between 8am and 11:30am on a Saturday.

There are also on-street spaces marked and/or time restricted on other roads across the city near facilities where demand justifies a formal arrangement (e.g. schools, local shops, churches, sporting facilities, railway stations).

Off-Street Parking

Off-street car parking includes:

1. Council owned and operated car parking facilities in the Ipswich City Centre, at schools, parks and sporting facilities. The majority of these spaces do not have time restrictions however specific parking areas within the Ipswich City Centre are time limited as necessary. These spaces are generally available for use by the public and have no charge.
2. Queensland Government owned and operated facilities at the Ipswich Hospital, railway stations and government facilities and offices.
3. Privately owned and operated facilities. Some of these are dedicated for use by specific people, such as customers within a shopping centre, while others are available for public use. Parking in some of these facilities is free, while other car park operators charge fees for their use.

Ipswich Planning Scheme

The supply of privately owned off-street car parking associated with new developments is controlled by Council through provisions in the *Ipswich Planning Scheme* that prescribes minimum acceptable parking supply rates based on the subject development's land use, size and location.

The *Ipswich Planning Scheme* allows a reduced car parking rate for some land uses in the Ipswich City Centre, Rosewood, Ripley and Springfield to assist with the economic viability of developments in locations where applicable and to promote travel behaviour change.

Regulated Parking

Council has the ability to regulate on-street parking on both Council and State-controlled roads. The regulation of car parking is important to ensure that parking is being used as efficiently as possible, to ensure public safety and amenity, promote turnover and allow for the effective loading of goods and passengers.

Parking regulation can include:

- Type of vehicle that can use a parking space;
- Times that a vehicle can park in an area;
- Maximum parking duration allowable;
- Issuing of permits; and
- The fee required.

A regulated parking area has been established in the Ipswich City Centre (refer Map 22). At present, this regulated parking area has no time generic restrictions but is kept in place by Council to allow a blanket time restriction to be introduced if ever required in the future.

Figure 22: Ipswich City Centre Regulated Parking Area



Parking Surveys

Council regularly conducts surveys of parking usage and turnover in the Ipswich City Centre. The last survey undertaken in 2015 indicated the peak demand for on-street parking spaces was 69%. This indicates that at times of peak demand, there are still many on-street parking spaces available. The survey results also indicated that the peak demand for off-street parking spaces was 81%.

However there were a number of on and off-street car parking areas that reported maximum demands greater than 85% which is considered the threshold for efficient use of parking. This indicates measures may be required to manage demand at these locations. Measures may include introducing or altering the time restrictions, introducing paid parking or consideration of increasing the fee where paid parking already exists.

Ipswich Parking Strategy

The *Ipswich Parking Strategy* was developed in 2011 to provide a coordinated way forward for Council to address the supply and management of parking in Ipswich.

The main premise of the *Ipswich Parking Strategy* was to assign a user priority to on-street parking across nine precincts in the Ipswich City Centre as outlined in Figure 23. The hierarchy, outlined in Table 32, p. 137, helps to guide which users are best suited for the particular location and informs the kerbside allocation for that precinct.

The Parking Strategy also identified 50 actions for implementation. A large number of these actions have been completed. This includes the roll out of new parking meters and the preparation of detailed parking management plans for various precincts in the Ipswich City Centre.

Further information on the Ipswich Parking Strategy and its implementation is available from Council on request.

Figure 23 Ipswich City Centre Parking Precincts



Table 32: Ipswich City Centre Parking User Priority Hierarchy

Priority	Core	Downtown	Medical	Legal/ Govt	Fringe	West Ipswich	Top of Town	Education	North Ipswich
Highest									
Lowest									
Not permitted									

- Motorcycle and Scooters
- Loading Goods
- Loading Passengers
- Long Stay >4 hours
- Residents
- Public Transport
- Disability Permit Holders
- Short to Medium Stay <4 hours
- Park 'n' Ride
- Cyclists

Ipswich City Centre Commuter Parking Strategy

The *Ipswich City Centre Commuter Parking Strategy* was developed in 2014 to provide a coordinated approach to address the supply and management of parking for commuters (workers) in the Ipswich City Centre.

The key premise of the *Ipswich City Centre Commuter Parking Strategy* was to address the needs of long stay parkers (>4 hours in duration – that is, commuters and workers) in the short term, whilst ensuring the turnover and availability of car parks for short stay parkers (<4 hours duration – for example, shoppers and business customers).

The development of the strategy highlighted the following key issues and outcomes for commuter parking in the Ipswich City Centre:

- Overall parking supply exceeds current demand;
- Occupancy rates are highest in the CBD Core and Medical precincts for both on and off-street parking;
- The supply of parking requires a demand management approach - not a demand satisfaction approach;

Table 33: Ipswich City Centre Commuter Parking Strategy

Outcome	Action
Monitor demand	Along with regular quantitative surveys, undertake a qualitative survey of motorists who park long-term in the Ipswich City Centre.
Travel options	Long-term parking arrangements are to be integrated with iGO and other transport strategies including public transport, walking and cycling.
Parking options	Identify and create various off-street parking facilities for CBD commuters where they can park remotely for free, park on the fringes of the city for a low fee or park close to their destination for a higher fee. Allow long-term parking on-street in certain precincts.
Information	Provide information to the public on parking options in the Ipswich City Centre.
Technology	Invest in new technology that provides meaningful data on parking availability across the Ipswich City Centre.

- Free parking has a high direct and indirect cost (i.e. there is no such thing as free parking);
- Commuters should be offered a range of options varying from free parking on the fringes of the Ipswich City Centre to user pay parking in closer locations within the core of the Ipswich City Centre;
- To encourage long stay (commuter) parking away from the CBD Core and Medical precincts, pedestrian access, security and ancillary facilities such as lighting must be provided;
- Information on travel and parking options provided to users is to be improved and available prior to their driving to a long term car park; and
- Promote all options for access – including walking, cycling and public transport.

A summary of the outcomes from the *Ipswich City Centre Commuter Parking Strategy* is outlined in Table 33.

The *Ipswich City Centre Commuter Parking Strategy* also identified a number of actions for implementation. As a response to the introduction of paid parking arrangements in the Ipswich City Square car park (located in the CBD Core), the following actions from the strategy have been implemented:

- Opening existing parking areas on Bremer Street and at Queens Park (Nerima Gardens) for commuter use;
- Constructing a new car park for commuters in Marsden Parade; and
- Converting under utilised short stay on-street parking spaces to long stay and undertaking a public education campaign.

Future actions from the strategy include:

- Developing a Parking Pricing Strategy for the Ipswich City Centre;
- Establishing an area for commuters to park in the existing Limestone Park car parks; and
- Installing pedestrian mobility and safety facilities and a possible shuttle bus service between the 'outer' commuter car parks in Queens Park and Limestone Park and key employment destinations in the Ipswich City Centre.

Further information on the *Ipswich City Centre Commuter Parking Strategy* and its implementation is available from Council on request.

Opportunities

There are a number of opportunities for the sustainable management of parking in Ipswich.

New Parking Paradigm

The traditional policy approach to parking by local governments in Australian cities like Ipswich has been that motorists should nearly always be able to easily find convenient, free parking at every destination. This has been facilitated by mandating minimum off-street parking to be supplied by new developments in addition to on and off-street public parking areas.

Under this 'predict and provide' approach, parking planning is based on the premise that a 'parking problem' means 'inadequate supply' and consequently:

- More parking is better;
- Every destination should satisfy its own parking needs (minimum ratios);
- Car parks should never fill; and
- Parking should always be at no cost to the user and thus subsidised or incorporated into building costs.

A new parking paradigm has emerged which takes a demand management approach to parking, rather than the traditional demand satisfaction approach. This new paradigm makes more efficient use of existing

infrastructure, as an alternative of providing more, and accepts higher occupancy levels for car parking spaces where motorists have a choice between free and low cost parking further away (linked with safe and convenient pedestrian facilities) and higher cost parking closer to their destination.

Parking prices could be structured to achieve this particular outcome. Instead of setting time restrictions for car parking spaces, car parking usage and turnover can be managed by setting parking pricing that favours the desired user. This can be achieved through setting variable prices per hour, where the parking rate for the first 15 minutes is free, the next hour is low cost and then the rate increases as the duration of stay increases to a capped rate for the day. The daily rate can vary depending on the location and whether long stay or short stay parking is preferred at that location.

Other new approaches to parking include alternative payment methods (e.g. pre-payment through a smartphone app), demand responsive pricing during various times of the day or week and providing real time information to motorists about parking supply locations to reduce circulating traffic.



Policy to Support Sustainable Mode Shift

The supply and price of parking significantly impacts on public transport use in and around activity centres.

Therefore it is critical that the parking policy is supported by a meaningful public transport service. There are other parking policy measures that Council could investigate and implement to further promote the use of sustainable transport. These include:

Use of Parking Revenue to Fund Sustainable Transport

In order to improve facilities that support sustainable travel modes, a portion of revenue from parking meters and fines could be used to improve footpaths, streetscaping, bikeways and bike parking. These benefits will promote the use of active transport and result in improved amenity in these areas.

Maximum Parking Rates

Parking rates in large, established activity centres with good public and active transport provisions are being capped through land use planning/development controls. As well as encouraging walking, cycling and public transport travel, this also has the benefit of reducing building costs.

Pricing

Introduction of or higher cost paid parking arrangements in some on and off-street parking areas.

Time Restrictions

Introduction or expansion of time restrictions in some on and off-street parking areas.

Shared Parking

The efficiency of existing parking can be increased through the use of shared parking. Shared parking is where car parking areas are used by more than one user (usually as the demand arises at different times), allowing the spaces to be used continuously throughout the day or week, and not only during business hours or on certain days of the week.

Unbundled Parking

The efficiency of existing parking can be increased through the use of unbundled parking. Unbundled parking is where spaces are rented or sold separately to building space so occupants only pay for the parking they want to use.

This is being used more frequently for residential buildings where owners only buy or lease the number of car parking spaces they require rather than having a default number of spaces included with their premises. Unbundling parking improves housing affordability by reducing the cost of property, encourages reduced car ownership and promotes the use of car sharing and public and active transport modes.

*“The more parking space,
the less sense of place.”*

Jane Holtz Kay

Urban designer and architect



Challenges

There are a number of challenges for the sustainable management of parking in Ipswich.

Competing Kerbside Demands

As activity centres grow and increase in density, the demand for on-street parking will also increase. The provision of on-street parking needs to be balanced against other demands including loading zones, bus stops and parking for people with disabilities. As such, detailed management plans for each precinct in the Ipswich City Centre are to be developed and implemented based on the parking user hierarchy as outlined in Table 33.

As the city grows there will be a need to expand the parking user hierarchy to include other activity centres across Ipswich. The suitability of the hierarchy will also need to be monitored and potentially revised over time.

In residential areas where there are high parking demands from adjacent non-residential land uses, such as businesses or hospitals, there may be a need to regulate parking through signage and/or issuing of residential parking permits.

Sustainable Supply

Providing more and more parking spaces as activity centres grow is not sustainable in the long term. It will simply promote further car use leading to traffic congestion (and associated social and environmental impacts) and poor quality urban design outcomes where vehicles dominate space rather than people.

A strategic balance, or 'tipping point', will need to be identified in the Ipswich City Centre's evolution where a sustainable level of parking supply is provided and managed to promote economic vitality, with only minimal additional parking provided from then on.

One challenge will be determining the timing as to when this 'tipping point' will or has been triggered, then identifying when to push the policy levers.

Culture Shift

As the city grows, there will need to be shift in culture from expecting a close free car park to having to park further away and/or having to pay for the privilege.



Policy Focus

In order to promote the economic and civic revitalisation of the Ipswich City Centre, the supply and management of parking will need to continue in the short term. However, in the future, a 'tipping point' will be reached where the provision and operation of parking spaces will need to be strategically managed to encourage travel behaviour change to more sustainable transport modes to assist with achieving the mode share targets of iGO.

As such, the parking policy focus will be given to the following elements:

Balance Supply and Management Outcomes

Strategically manage car parking in a way that supports the economic vitality of the city, balances the needs of all parking user groups and ultimately boosts sustainable transport use.

New Technology

Improve parking efficiency through new technology.

Public Education

Educate the community and business operators on the strategic long term benefits of changing the parking culture in a growing city.

Actions

With regards to the future parking system in Ipswich, Council's prioritised way forward is outlined in Table 34.



Table 34: Parking Actions

Action	Policy Focus			Timing
	Balance Supply & Management Outcomes	New Technology	Public Education	
P1: Implement the parking user hierarchy in the Ipswich City Centre (and other activity centres and key locations over time).	✓		✓	O
P2: Regularly undertake parking demand surveys in the Ipswich City Centre and other key locations (at least every two years where peak occupancy is >60%).	✓			O
P3: Monitor car parking operation in areas outside of activity centres with high parking demand and implement regulated parking measures as needed.	✓			O
P4: Investigate the feasibility of new technologies as they arise to promote parking user information.		✓		O
P5: Develop and implement parking management plans for the following precincts in the Ipswich City Centre: <ul style="list-style-type: none"> • Downtown • West Ipswich • Legal/Government • North Ipswich 	✓		✓	S
P6: Develop a <i>Parking Pricing Strategy</i> for the Ipswich City Centre.	✓			S
P7: Investigate the merits of using parking revenue to fund sustainable transport.	✓			S
P8: Inform the <i>Ipswich Planning Scheme</i> with: <ul style="list-style-type: none"> • The recommended car parking rates from the <i>Parking Rates Benchmarking Study</i> undertaken in 2013; • Guidance about when shared and unbundled parking could be applied in developments; • Decision guidelines to assist with the evaluation of the impacts of parking; and • Requirement for developments with substantial car parking requirements to prepare <i>Parking Management Plans</i>. 	✓			S
P9: Develop and implement a <i>Parking Information Signage Strategy</i> for the Ipswich City Centre. This includes investigating the merits of new technologies to communicate real-time parking information.		✓	✓	S
P10: Undertake a qualitative survey of drivers who park long term in the Ipswich City Centre to obtain information about their travel behaviour and advice to assist with informed decision making.	✓	✓	✓	S
P11: Develop and implement a <i>Parking Awareness Campaign</i> to communicate the benefits and reasoning of adopting a new paradigm to parking in the Ipswich City Centre.		✓	✓	S
P12: If required, open the Limestone Park car park to commuters and if feasible introduce a shuttle bus between the park and the Ipswich City Centre (possibility in conjunction with the Ipswich Hospital bus).	✓			M
P13: Review and update parking management plans for the following precincts in the Ipswich City Centre: <ul style="list-style-type: none"> • Medical Precinct • Denmark Hill • Top of Town • Education 	✓		✓	M
P14: Investigate the merits of removing time restrictions in some metered areas to promote a users pays system.	✓			M
P15: Update the <i>Ipswich Parking Strategy</i> to reflect changes to land use and parking across the city. Evaluate the success of the strategy and use this information in its revision.	✓	✓	✓	M

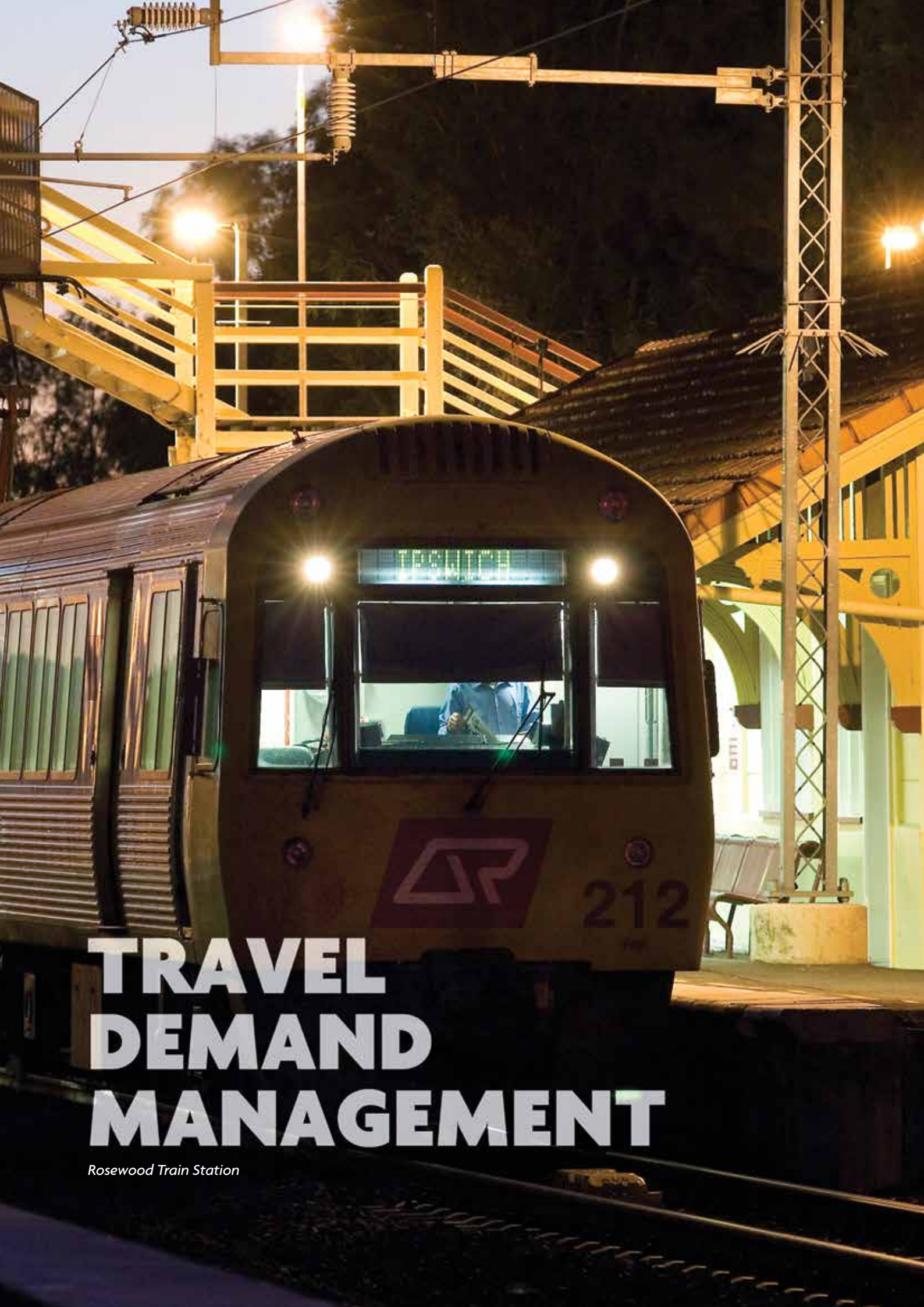
NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

S = Short term (within the next 5 years or by 250,000 population)

M = Medium term (within the next 10 years or by 350,000 population)





TRAVEL DEMAND MANAGEMENT

Rosewood Train Station

Introduction

Travel Demand Management (TDM) involves measures and initiatives which reduce or spread out the demand for single occupancy car travel.

Quite simply, TDM measures are designed to maximize the people-moving capability of the transport system by increasing the number of persons in a vehicle or by influencing the time of, or need to, travel.

In particular, TDM is about changing travel behaviours of commuters (people travelling to and from work and school) during traditional peak hours. To accomplish these types of changes, TDM relies on incentives and disincentives to cost, time, distance, safety, comfort and culture to make these shifts in behaviour attractive.

TDM measures can promote sustainable travel behaviour, alleviate or postpone the need for major infrastructure enhancements and can reduce the number of vehicles required to service a household.

Table 35: Examples Of Travel Demand Management Measures

Measure	Description/Example
Active Transport	Provision of safe and comfortable infrastructure to promote walking and cycling to/from work and school.
Public Transport	Provision of meaningful public transport services.
Car Sharing	Having a common car available to be booked for use by a number of people.
Bicycle Sharing	Having a common bicycle available to be booked for use by a number of people.
Ride Sharing	Sharing a vehicle with someone else (sometimes referred to as "carpooling").
Telecommuting	Working from home, remotely or at a 'hub'.
Work Hours	Commence and finish work outside traditional "peak hour" times (e.g., start work at 6am and finish at 2pm). Compressed working week (e.g. working 40 hours over four days rather than five).
Public education, information and promotions	Car free Sundays, walk to school/work days, local access guides/travel journey maps, bicycle riding and safety classes at schools.
Pricing	Road congestion charging Parking meters and fees Fuel tax increase Low cost public transport services
Special Event Ticketing and Marketing	Including the use of public transport (PT) as part of the ticket cost and promotes the use of PT to travel to and from the event.

TDM measures are:

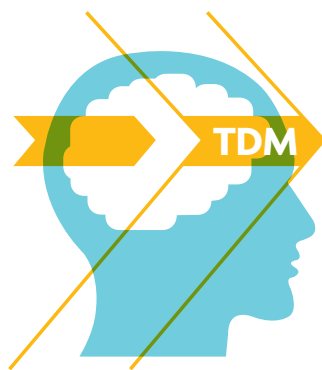
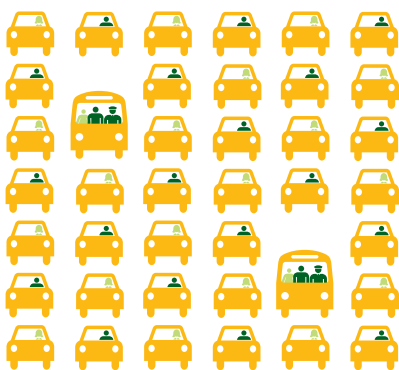
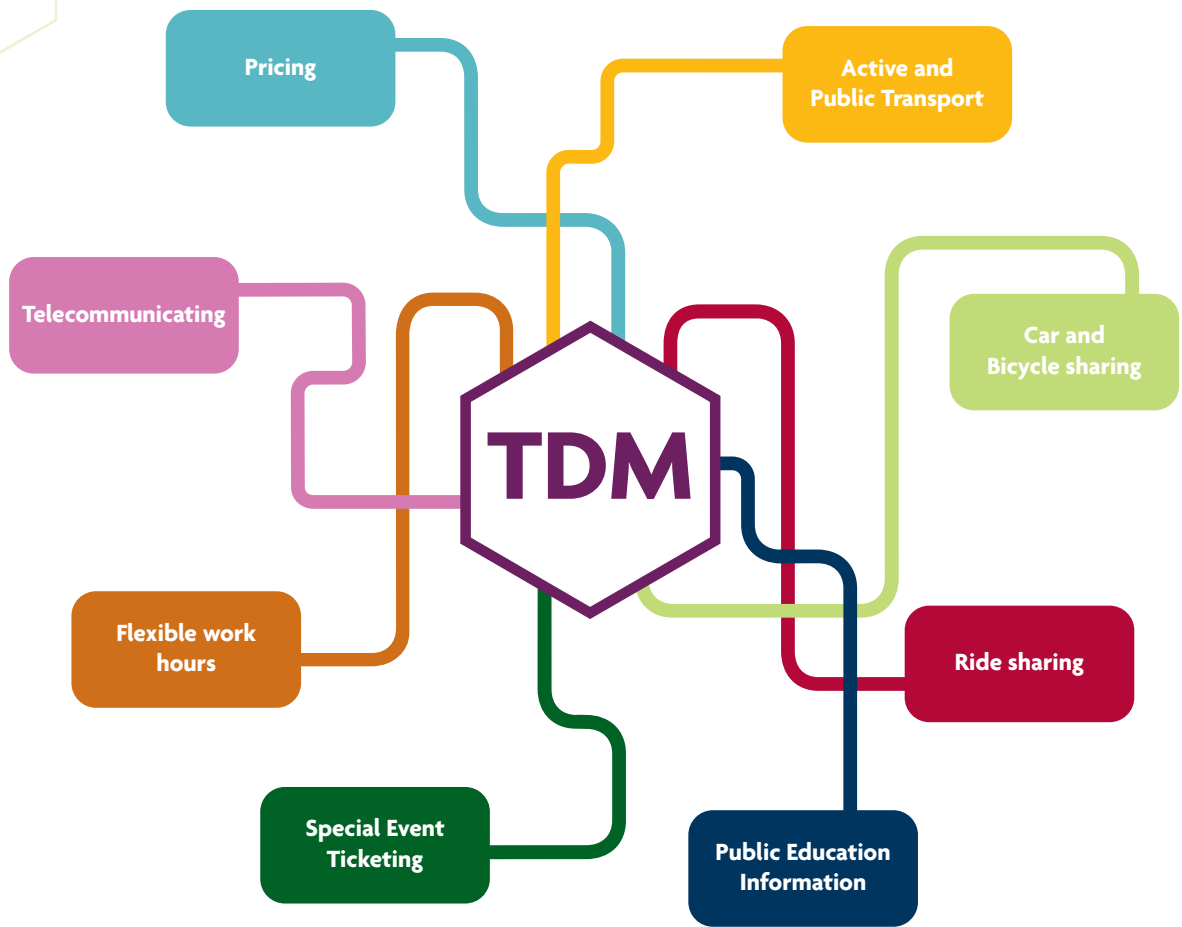
- Flexible and tailored to a particular situation, location, time period or user group;
- Implemented quickly;
- The most cost effective solution to a transport problem;
- Provide various consumer benefits (such as improved transport options and financial rewards);
- Helping achieve equity (user pays, improve transport options available to non-drivers);
- Correcting existing market distortions (such as parking prices); and
- Help achieve sustainability objectives (such as resource conservation, environmental protection and efficient land use)²³.

Consequently, a comprehensive, complementary and politically empowered suite of TDM measures, when combined with infrastructure enhancements and service improvements, has the potential to make a major contribution towards Ipswich's sustainable transport future.

23 Victoria Transport Policy Institute. Online Travel Demand Management Encyclopaedia: Why Manage Transportation Demand? (Victoria Transport Policy Institute. 2015).



Figure 24: Examples Of Travel Demand Management Measures



Existing Situation

Healthy Active School Travel Program

In partnership with the Queensland Government, Council operates the Healthy Active School Travel (HAST) Program that aims to increase the number of primary school children in Ipswich using active travel modes (walking, cycling) and public transport to travel to and from school. The Ipswich HAST Program provides:

- Tools and resources to schools that then develop their own initiatives, campaigns and events. This includes the development of a school travel map and organisation, promotion and participation in regular school community events such as 'Park, Walk and Ride' days as well as participating in the 'National Ride 2 School Day' and the 'Walk Safely to School Day'; and
- Bicycle and scooter riding skills and road safety education classes to students.

TravelSmart

The Queensland Government operated the *TravelSmart* Program to encourage people to drive less in favour of more sustainable transport options and thus assist with addressing traffic congestion in South East Queensland. The program was run across three areas:

- Communities;
- Workplaces; and
- Schools.

As part of this program, a local travel map was created which provided information on walking, cycling and public transport in Ipswich.



Opportunities

There are a number of opportunities for travel demand management measures in Ipswich.

Efficiency of Existing Transport System

Both the public and private sectors have experienced a recent period of financial constraint and funding limitations due to global and national issues. Due to historical economic cycles, it is realistic to assume that these times will be experienced again in the future.

As such, Council is focused on achieving value for money for Ipswich ratepayers and residents in regards to the Ipswich transport system. Implementing a suite of TMD measures for Ipswich creates opportunities to get the most value out of Ipswich's existing transport network, simply by using it smarter and more efficiently.

Targeting Ipswich Residents Travel Priorities

Travel behaviours results from a complex decision-making process. Understanding why, how, when and where people travel is a necessary prerequisite to targeting specific TDM initiatives and their successful implementation²⁴. Ipswich, like most places in Australia, currently has a car dominated travel culture. Not only are some trips impossible without the car at this point in time, but people want to drive due to the safety, convenience, flexibility, time savings and reliability of this mode.

TDM measures provide opportunities to test how willing Ipswich residents are to using other transport modes, particularly for their commuting trip, by determining what their travel priorities are (i.e. time v cost v safety v convenience etc.). This is achieved by making drivers pay previous unseen costs (i.e. parking) and offering incentives for sustainable travel modes (i.e. take nine trips by public transport, the tenth trip is free).

Determining what incentives and disincentives achieve the most travel behaviour change for commuter trips in Ipswich helps identify Ipswich resident's travel priorities. These priorities can then be targeted and infrastructure investment focused to achieve even greater sustainable travel behaviour change in the Ipswich community.

Schools

There are 65 schools in Ipswich attended by about 32,000 students. Ipswich has the youngest demographic profile in South East Queensland (with an average age of 32 years old in 2011) and is projected to have a larger increase in young people (<34 years of age) than any other local government area in Queensland over the coming decades. With the iGO horizon of 435,000 people, 40% of the population in Ipswich is predicted to be less than 25 years of age.

Growth in this specific demographic means that there are significant opportunities to influence a large number of Ipswich's overall private vehicle trips simply by targeting schools trips and using school trip based TDM measures.

Further advantages of targeting schools is that children can become more active and healthy, complementary TDM measures that involve the whole family can be developed (i.e. family car free days) and child travel behaviours can be positively influenced early on and be maintained as they grow up to be adults.



²⁴ Austroads. AP117/95 Travel Demand Management Guidelines. (Sydney: Austroads. 1995).

Greenfield Development Areas

As previously outlined in the iGO Land Use section, Ipswich contains a number of 'greenfield' urban development areas as outlined in Table 36.

These areas will contain the large majority of the new residents of Ipswich expected over the coming decades. Most of these areas have been 'master planned' to ensure coordinated development outcomes, albeit at a high level.

There are opportunities to implement TDM measures in these areas to promote a non-car based culture and help support the development of sustainable travel behaviours.

Table 36: Greenfield Development Areas in Ipswich - existing, emerging and planned.

Area	Location
East	Augustine Heights
	Bellbird Park
	Brookwater
	Collingwood Park
	Redbank Plains (south)
	Springfield Springfield Lakes
South	Deebing Heights
	Ripley
	South Ripley
	Yamanto
North	Brassall (north-west)
	Karalee (large lot residential)
	Chuwar - Kholo corridor (possible)
West	Rosewood
	Thagoona
	Walloon

Workplace Culture

Opportunities exist for organisations in Ipswich that employ large numbers of staff to change their workplace culture and implement TDM measures. These measures relate to telecommuting, allowing staff to commence and finish work outside traditional 'peak hour' times and compressed working weeks, the supply of end of trip facilities for staff who cycle to/from work, parking demand management and providing incentives for staff to use public transport.



Challenges

There are a number of challenges for travel demand management measures in Ipswich.

Institutional Barriers

Some of the main challenges for TDM measures include overcoming institutional barriers. This includes such barriers as the notion that you have to be seen at work to be working, the '9 to 5' work culture and employers paying for parking.

If it was more accepted that employees could work from home, even one day a week, this would reduce the total amount of trips on the transport network. By allowing employees flexible work times, it is possible to reduce the amount of trips experienced on the transport network during peak periods. If employees had to pay for their own parking, there is a greater understanding of the cost of the trip and sustainable modes could become more attractive.

It is acknowledged that some of these work practices are not viable for some organisations and businesses. However, for those where it is possible and these institutional barriers can be overcome, there is significant potential to increase the life of the existing transport network and reduce the pressure for costly infrastructure upgrades.

'Status Quo' Attitude

Individuals and communities have their own culture that resists change and maintains the status quo²⁵. There is currently a car dominated travel culture in Ipswich and an expectation that this culture will always be provided for through the continual addition of space for the movement and parking of cars.

For TDM measures to be effective, major changes to this status quo attitude are required. There needs to be community acceptance and motivation to change Ipswich's current car dominated travel culture. Public education, promotion, engagement and awareness have a significant role to play in overcoming this challenge.

Availability of Viable Travel Choices

TDM measures that are focused on the reduction in trips by single occupant cars will be difficult to achieve unless viable travel choices are available²⁶.

If users perceive other modes of travel to be inconvenient or unattractive (i.e. carpooling requires too much planning, cycling takes too much time to go via the safest route, public transport doesn't take me where I want to go or when I want to go), the likelihood of change is significantly reduced. There needs to be a benefit to using a more sustainable mode of transport to attract users.

Therefore, addressing this challenge will involve implementing a combined approach between TDM measures, infrastructure and service solutions to make sustainable travel modes more competitive with car travel.

"Cheap and abundant parking holds down the cost of driving, which in turn encourages greater car use, spurs auto-orientated design, degrades the pedestrian environment and discourages trips by foot."

Julie Campoli
Lincoln Institute of Land Policy



25 & 26 Austroads. AP117/95 Travel Demand Management Guidelines. (Sydney: Austroads. 1995).

Policy Focus

To support Ipswich's population growth, Travel Demand Management programs and initiatives will need to align with the following policy focus areas:

- Quadruple bottom line outcomes;
- Influencing administration frameworks; and
- Public education and information;

Quadruple Bottom Line Outcomes

Travel Demand Management initiatives must contribute towards the achievement of the following four outcomes. These being:

- **Environmental.** Reduce the environmental impacts of travel;
- **Economic.** Reduce transportation system funding requirements and improve the economic efficiency of the movement of people and goods;
- **Social.** Improve accessibility, mobility and equity;
- **Cultural.** Clever new thinking to change the status quo attitude;

Influencing Administration Frameworks

Decisions as to when, where and how to travel and residential location choice need to greater reflect 'real travel cost' and 'locational choice cost'.

As such, Council will facilitate the implementation of regulative and administrative frameworks, incentives and disincentives that assist changes to travel patterns and 'level the playing field' in terms of cost and opportunity. This is particularly so for commuter trips to/from work and school.

Public Education and Information

In order to assist with community and organisational attitudes, Council will focus on delivering TDM measures that help and empower individuals and organisations to make informed living and travel choices. This will be achieved by providing education and information on the real costs of travel and the range of impacts associated with travel choices.

Actions

With regards to Ipswich's sustainable transport future, Council's prioritised way forward for Travel Demand Management is outlined in Table 37.

"A lot of people would prefer to drive less and rely more on walking, cycling and public transit, provided that those are high-quality options."

Todd Litman
Victoria Transport Policy Institute



Table 37: Travel Demand Management Actions

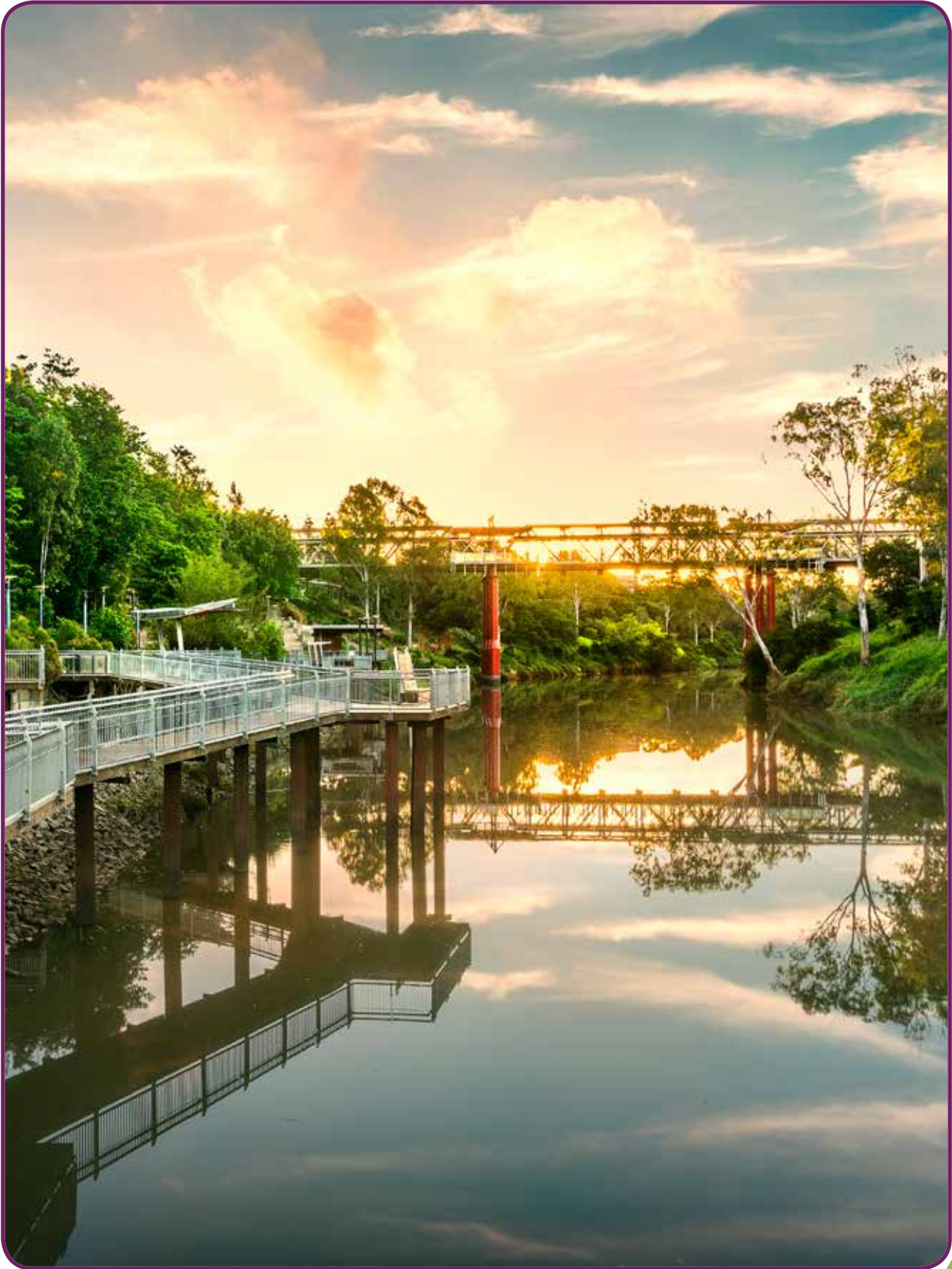
Action	Policy Focus			Timing
	Quadruple Bottom Line Outcomes	Influencing Administration Frameworks	Public Education & Information	
TDM 1: Facilitate and publicly support the following land use based travel demand management initiatives to reduce trip lengths and promote more travel by sustainable transport modes: <ul style="list-style-type: none"> Densification and mix of land uses in activity centres and around major public transport nodes and corridors; and “Complete Communities”/“10 Minute Neighbourhood” concept. 	✓	✓		O
TDM2: Facilitate and publicly support the implementation and future reviews of the Ipswich Parking Strategy, the Ipswich City Centre Commuter Parking Strategy and the future Parking Pricing Strategy that dictate the new paradigm of parking demand management (rather than supply) so as to influence trips towards more sustainable modes of transport.	✓	✓		O
TDM 3: Support and/or undertake public education and information campaigns and events that promote the benefits of: <ul style="list-style-type: none"> Travel behaviour change to sustainable transport modes; Adopting a new transport planning paradigm of demand management (rather than supply); Integrating land use and transport (and associated housing and location decisions); and Adopting a healthy and active lifestyle (and its association with travel). 		✓		S
TDM 4: Undertake a comprehensive data and information collection exercise to ascertain what factors influence Ipswich resident’s travel choices the most to assist with developing and implementing targeted travel demand management measures.	✓	✓	✓	S
TDM 5: Investigate and implement school based travel demand management initiatives with a focus on trips less than 3 kilometres. In particular: <ul style="list-style-type: none"> Continue to invest in, and expand, the Ipswich Healthy Active School Travel Program (or similar). Branding, partnerships, sponsorships and empowerment mechanisms should be investigated, and where applicable, implemented as part of this action; Focus on changing school trips less than 3km to active transport modes; Investigate and implement traffic calming measures and pedestrian priority links at appropriate locations on key active transport routes within 3km of schools; and Investigate and develop a <i>School Parking Policy</i> which allows for a staged and coordinated approach with other transport modes to reduce parking availability at schools 	✓	✓	✓	S
TDM 6: Investigate and implement school based travel demand management initiatives for school trips greater than 3km. In particular: <ul style="list-style-type: none"> Evaluate existing school bus patronage and barriers to use for trips greater than 3km from the school; Develop, invest in, implement and support programs (i.e. through public education campaigns) that promote and improve the quality and use of school buses; and Investigate, implement and support school based carpooling programs. 	✓	✓	✓	M
TDM 7: Engage with major city employers (including Council) to facilitate institutional change, provide incentives and develop Sustainable Workplace Travel Plans.	✓	✓	✓	M
TDM 8: Develop, test, implement and promote travel demand management measures that are targeted towards greenfield developments.	✓	✓		M
TDM 9: Advocate for and work with the Queensland Government to implement and promote greater incentives for public transport use having regard to what Ipswich resident’s transport priorities are.	✓	✓	✓	M

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

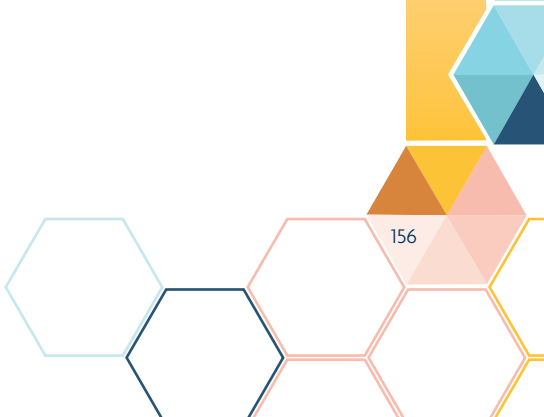
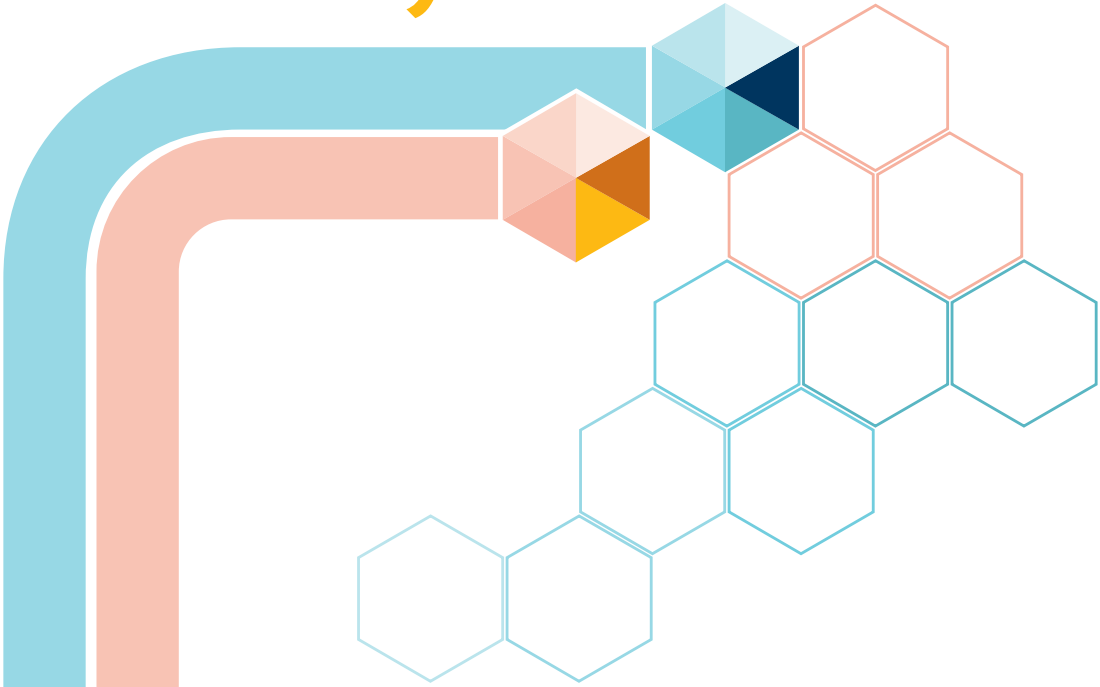
S = Short term (within the next 5 years or by 250,000 population)

M = Medium term (within the next 10 years or by 350,000 population)





Delivery



Overview

iGO outlines a generational change to advance Ipswich to a sustainable transport future. Its delivery will require proper investment, clever new thinking and effective resourcing to achieve its vision, objectives and outcomes.

The first step in delivering iGO is to take a 'reality check' and accept that Ipswich is a rapidly growing city that will face many transport related opportunities and challenges over the coming decades. Adopting a 'business as usual' approach and attitude to solving transport issues is not a sustainable outcome in the longer term. This will require visionary leadership and inspiration.

The second step in delivering Ipswich's transport future is a balanced suite of low cost initiatives as well as the effective implementation of some major infrastructure projects, services and reforms for all modes.

These steps will be realised through:

- Strong governance;
- Engaging stakeholders;
- Developing partnerships;
- Harnessing opportunities;
- Managing risks, constraints and conflicts; and
- Public education and awareness.



Key Outcomes

iGO will be delivered with a focus on achieving the following key outcomes:

Facilitating travel mode choices

This outcome involves reducing Ipswich resident's dependency on the car for every trip by facilitating competitive, attractive and sustainable travel mode choices through the provision of quality transport infrastructure and incentives/disincentives.

Transport and land use integration

This outcome involves fostering the development of strong, compact and connected mixed use activity centres and complete communities ('10 minute neighbourhood, 20 minute city').

Culture shift

This outcome involves clever new thinking and strong visionary leadership to make sustainable transport decisions. This includes new 'non-traditional' attitudes such as:

- Promoting travel behaviour change for certain trips;
- Taking a demand management approach to car use, parking, road network performance and traffic congestion (not a demand satisfaction approach);
- Balancing the needs of all users in the design and management of roads;
- The development and uptake of new transport related technology;
- Influencing institutional frameworks (i.e. core work hours and locations); and
- Using innovation in regards to the cost, affordability, funding and financing of new infrastructure.

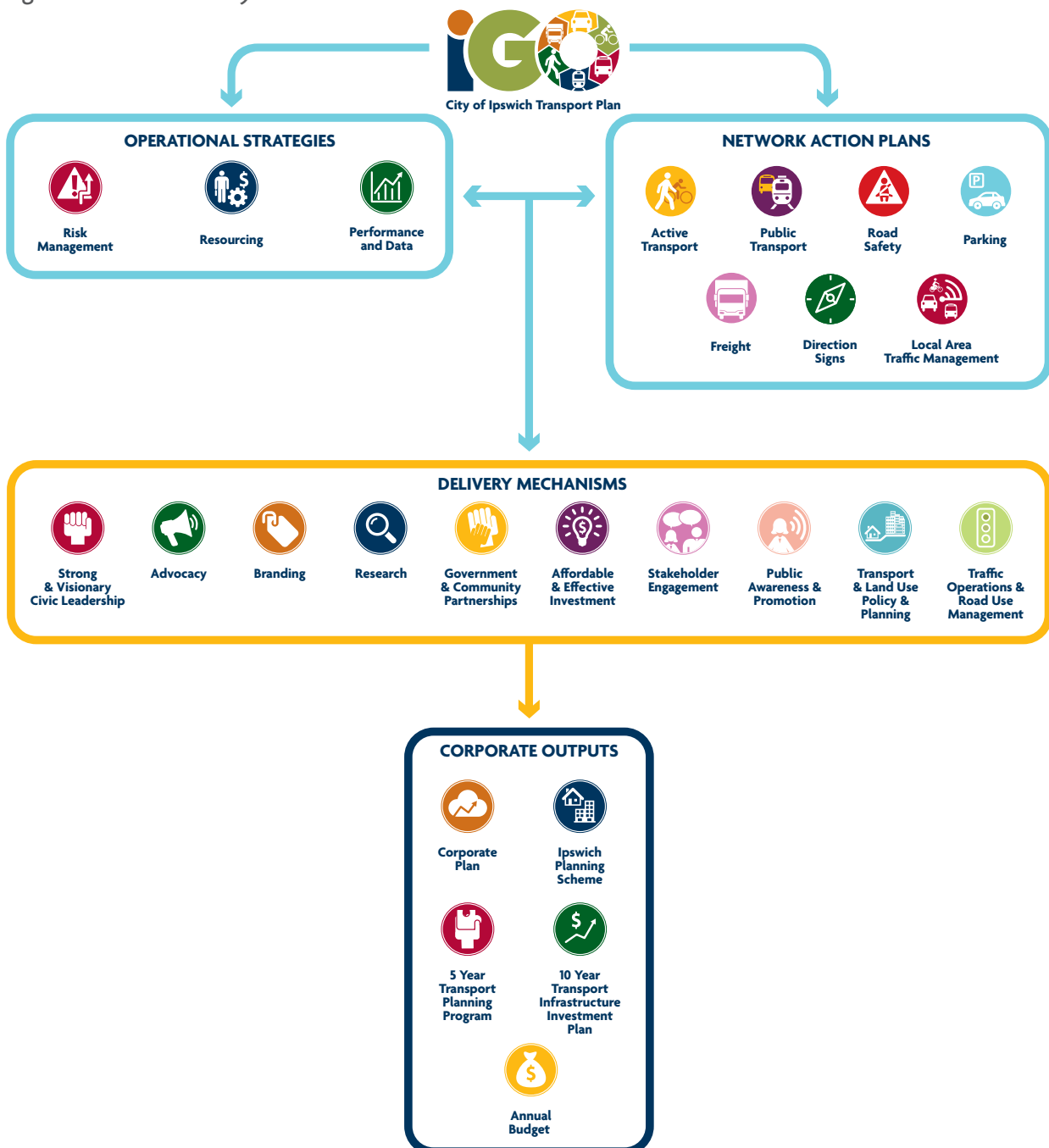
Delivery Structure

An overview of the iGO delivery structure is outlined in Figure 25.

It shows that iGO will be Council's 'parent' transport planning document with a number of Operational Strategies and Network Action Plans being developed and implemented over the coming years to support the delivery of iGO and provide more detail on achieving its aspirations.

Along with iGO, these 'child' documents will inform Council's transport, land use, investment and corporate planning activities moving forward. They will also be used to assist with advocating for and justifying external funding from higher levels of government and the private sector.

Figure 25: iGO Delivery Structure



Mechanisms

The following mechanisms will make for the effective delivery of iGO.

Leadership and Governance

Council will adopt iGO and its aspirations and actions as policy. Council will provide leadership to champion the iGO vision and will work to achieve its objectives, targets and outcomes. Council will establish an iGO Steering Group to deliver and monitor iGO and regularly report progress, findings, measures and actions through Council's standing committee governance process. The steering group will include cross-departmental representation and include both political and bureaucratic membership.

Principles

iGO will be delivered based on the following guiding principles:

- 'One Network';
- Safety;
- Reliability;
- Sustainability;
- Partnerships;
- Affordability; and
- Effective investment.

Further information about each principle is outlined in the iGO 'Aspirations' chapter.



Transport Planning and Operations

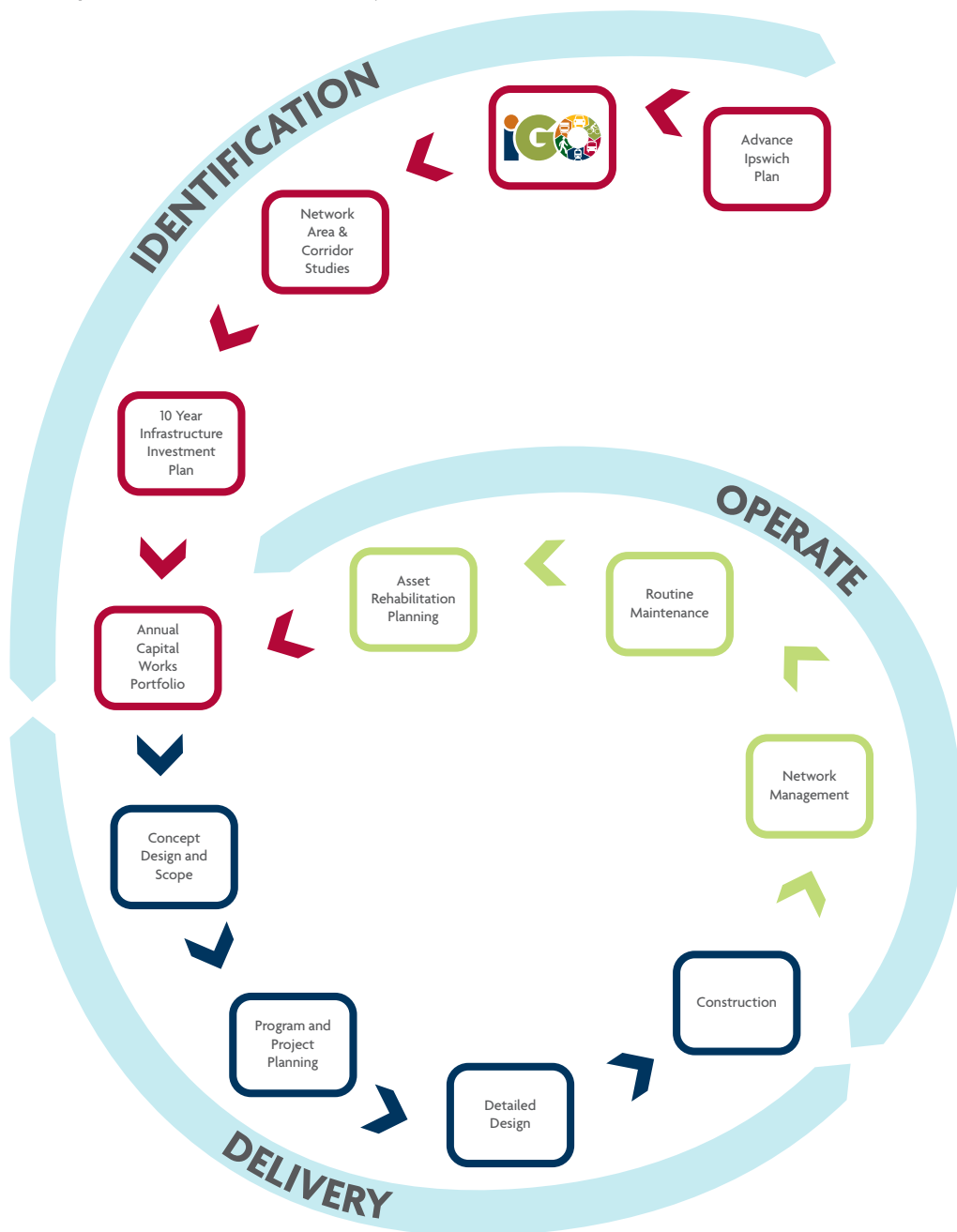
iGO will be used by Council as a tool to assist with Council's transport planning, road safety and traffic management activities. This includes undertaking more detailed network, area and corridor studies for various aspects and actions outlined in iGO, ensuring that all of Council's traffic engineering and design tasks are undertaken to align with the outcomes of iGO and that pilot projects are used (where possible and appropriate) to fast-track

delivery, engage the community and obtain feedback on the project impacts on the transport network.

Council's transport planning and design activities will take into account potential impacts on the natural environment, waterways, flooding and community amenity.

Figure 26 outlines the transport infrastructure lifecycle from identification, delivery and operations and how iGO fits into the overall context.

Figure 26: Transport Infrastructure Lifecycle



Investment Planning

iGO will be used by Council as a tool to assist with Council's investment planning activities. This includes the development of the annual capital works portfolios, operational budgets and applying for grants and subsidies.

Land Use Planning

iGO and its subsequent strategies will be used by Council as a tool to assist with Council's land use planning and development assessment activities. This includes informing the development and revision of the *Ipswich Planning Scheme* and Council's Local Government Infrastructure Plan and preserving transport corridors as development occurs.

Advocacy

iGO will be used by Council as an advocacy tool to assist with attracting investment partnerships and to lobby higher levels of government for improved public transport services.

Stakeholder Engagement

The delivery of iGO will require the targeted engagement of stakeholders (including community and user groups, traditional land owners, residents, business operators, developers and the general public) using traditional and modern communication methods. This includes data collection activities, implementation of community programs, public education and promotion initiatives and the planning and delivery of major transport projects.



Branding

The "iGO" brand will be used to market and associate all future transport related projects and initiatives to promote awareness and strong messages around iGO and its vision, objectives and outcomes. This includes further network strategies, area and corridor planning studies, community programs, investment planning and infrastructure projects.

Risk Management

Risks, constraints and conflicts involved with the delivery of iGO (i.e. political will at all levels of government, community involvement, funding issues etc.) will need to be identified and properly managed. Consequently, an *iGO Risk Management Strategy* will be developed and implemented.

Research

To ensure informed decisions can be made in the delivery of iGO, research into various transport and travel issues will be required. Some of this research can be done internally whilst other research topics can be undertaken in partnership and sponsorship with external providers such as the Queensland Government, universities and other research and development organisations.

Funding and Financing

The current reality of a globally constrained fiscal environment presents a significant challenge for government investment to keep pace with growth. However, it is recognised that there are many benefits of transport investment and that there is also a high cost (an economic, social, environmental and cultural price) of doing nothing.

Introduction

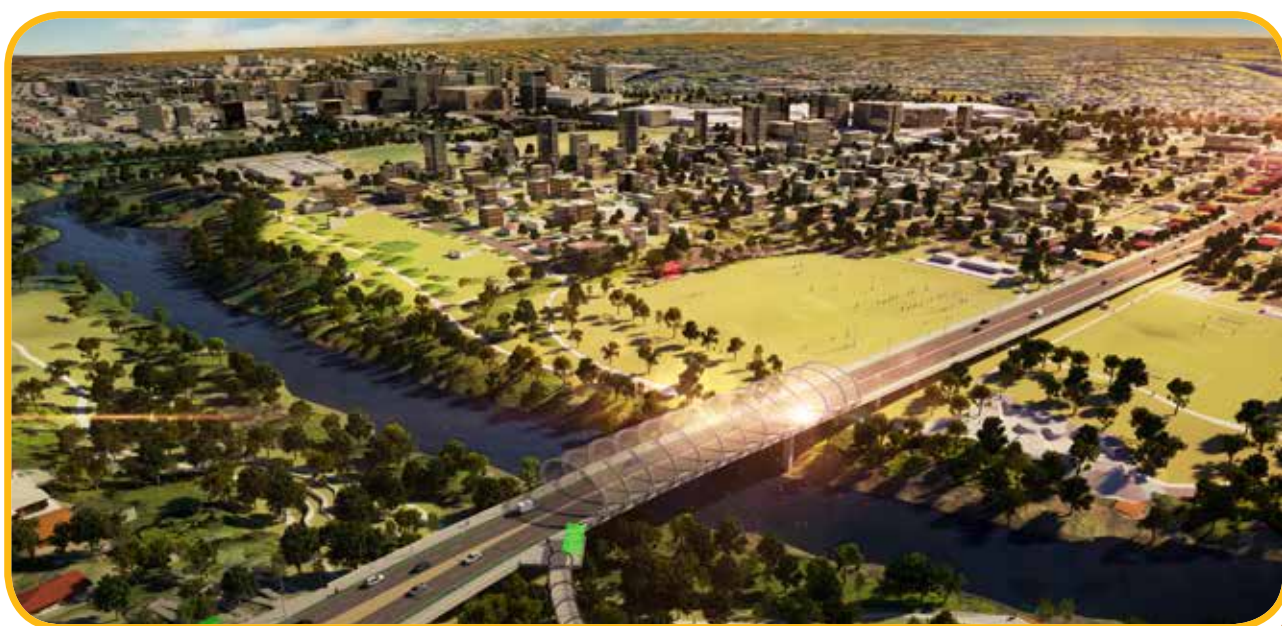
It is not the intention of iGO to be a fully funded plan. It is a strategy that will guide policy and investment decision making to advance Ipswich's transport future. iGO, and the development of a subsequent *iGO Resourcing Strategy*, will be used to evaluate funding needs and underpin lobbying efforts for funding from all levels of government and the private sector. New funding and financing provisions may be required to fill the gap between available income and future investment needs.

Providing a more sustainable transport system for Ipswich will reduce the need for investment in significant road capacity upgrades (i.e. having to provide six-lane roads to service peak hour single occupant car trips). However, significant investment in transport infrastructure, services, community programs, public education, Council resources and technology will still be required over the coming decades to see iGO's vision, objectives and outcomes come to fruition.

Corporate Capacity

Council will build capacity within its corporate structure to facilitate quality planning, design and delivery outcomes that reflect the aspirations of *Advance Ipswich* and iGO. This includes personnel, business processes, skills and expertise. To ensure its effective delivery, responsibility and accountability for the delivery of iGO will be assigned within the organisation.

As part of the development of the *iGO Resourcing Strategy*, Council will incorporate a component on corporate capacity that will be based on benchmarking and best practice in public sector management, capital investment portfolio structures and organisational and people development.



Cost

Given its high level aspirational nature, the cost of delivering iGO has not been estimated in detail. Many of the projects and initiatives flagged in iGO are strategic and ideological in nature with detailed costing occurring through further planning processes as part of the delivery of iGO (e.g. area and corridor studies and project evaluations).

However, high order preliminary calculations see just the capital cost of delivering iGO estimated in the order of \$2-\$3 billion. Of this amount, Council's expenditure estimate is between \$1-\$1.5 billion dependent upon Council's share in a number of investment partnerships required to see some 'signature' projects come to fruition.

On top of these capital costs are operational costs that fund the running of public transport services, community programs, public education and promotional activities as well as the general upkeep and repair of assets (of which investment in maintenance activities will need to keep pace with an expanding transport network and additional facilities).

Funding Envelope

Based on current financial sustainability parameters (using 'traditional' local government sources of revenue such as rates, fees, developer contributions and traditional government grants), Council's average funding envelope for investment in the delivery of iGO is around \$20 million per year (in 2015 dollars).

To gain a better picture of Council's average annual funding envelope for the delivery of iGO over its horizon population of 435,000 (and possible funding shortfalls), an economic and affordability analysis will be undertaken as part of the *iGO Resourcing Strategy*. This will include examination and reporting on revenue, capital expenditure on new infrastructure and operational expenditure on items such as corporate resourcing, further network, area and corridor planning activities, community programs and public education and promotion.

Inventive Solutions

Inventive and non-traditional methods in the funding, financing, cost and delivery of transport related investment activities will need to be investigated, identified and actioned by all levels of government. Possible options for further investigation and consideration are:

- Making the most out of ('sweating') existing assets;
- Investment partnerships across levels of government and the private sector;
- Harnessing technological advances in construction materials and techniques to lower delivery costs;
- Supporting and enabling new transport related technology including user and vehicle enhancements;
- Procurement and tendering packaging to achieve economies of scale and lower delivery costs;
- Transport levy (hypothecated and marketed around the funding and financing of a suite of 'signature' projects);
- Value capture schemes (whereby transport investments are funded from returns from properties whose value increases when serviced by the new investment);
- User pays fees (including parking charges); and
- Retail and commercial trade on transport properties.

In this regard, the development of the *iGO Resourcing Strategy* will include a discussion on transport infrastructure funding and financing options for further consideration by Council.



Transport Investment Priorities

iGO has identified multiple actions that are classified as either ongoing, short term (by 250,000 population), medium term (by 350,000 population) or longer term (by 435,000 population). In order to identify and prioritise the transport projects and initiatives that Council will focus its attention and resources on first, the development of the *iGO Resourcing Strategy* will include a *Five Year Action Plan* (to year 2020). This action plan will identify a prioritised order of work, allocate funding and identify the areas within Council responsible for their delivery.

'Whole of Council' Investment Priorities

iGO has been developed during a period of global economic downturn and at a time where public and private sector finances are tight. As such, government investments must be carefully prioritised. Each transport investment must be linked to it contributing to developing a sustainable transport system (i.e. the iGO vision, objectives and outcomes) and aligning with the prosperity and liveability outcomes of the *Advance Ipswich* plan.

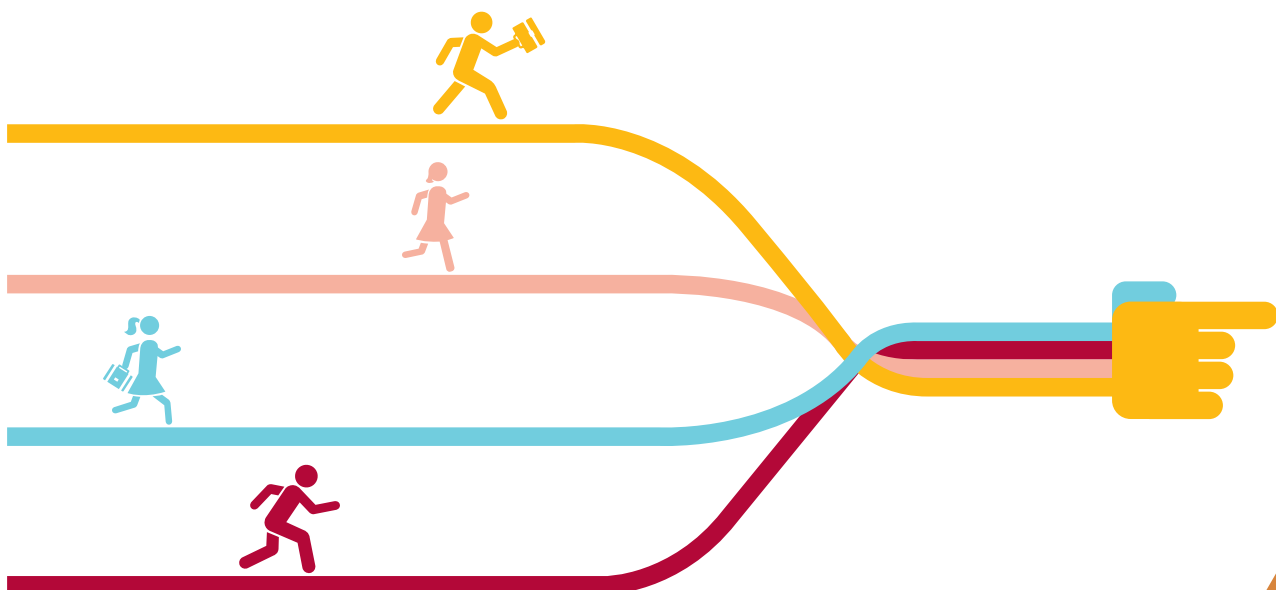
Funding for transport investment must also compete and integrate with other Council priorities relating to the sustainable growth of Ipswich including open space and recreation, flood resilience, environmental outcomes (nature conservation, integrated water cycle management) as well as "bread and butter" local government services such as waste, libraries, community wellbeing and asset maintenance.

To establish Council's short to medium term investment priorities (and thus assist with project planning, budget programming, land use planning, development assessment and asset management activities) it is proposed to develop an annual rolling *10 Year Infrastructure Investment Program* which is intrinsically linked to the *Advance Ipswich Plan*, child strategies such as iGO and supporting documents such as the *iGO Five Year Action Plan*.

Major Project Appraisals

To allow informed and effective investment decisions to be made and to establish return on investment, proper appraisal of major transport infrastructure proposals (sometimes referred to as 'business cases') will be undertaken to establish:

- Options and alternatives (including a 'do nothing' scenario);
- Impacts and risks (including their management/mitigation);
- Benefits realisation;
- Costings (full "whole of life" quadruple bottom line costs);
- Economic viability (e.g. benefit-cost ratio, net present value);
- Funding, financing and delivery mechanisms (including market sounding).





Evaluation

The following elements will be used to evaluate the delivery of iGO.

Monitoring

iGO will undergo a monitoring process in order to track progress towards achieving its vision, objectives, mode share targets, policy focus areas and actions.

As part of a subsequent *iGO Performance and Data Strategy*, this will involve the production of an iGO Annual 'Report Card' that will provide a snapshot of the achievements of delivering iGO over the previous year and the key actions for the next year. From here, planning, funding, infrastructure and service delivery priorities can be adjusted where required.

Review

Minor reviews to iGO will be undertaken as required in response to emerging issues and will involve web-based adjustments to the document.

Incorporated in the *iGO Performance and Data Strategy* will be the requirement to undertake a major review of iGO every five years (the next being 2020) to assess progress and the 'value for money' achieved during the previous five year period. Major reviews will involve an assessment of the projects implemented, identification of the impacts on Ipswich residents travel behaviour and trends relative to monetary investment and progress towards each policy focus, the mode share targets, objectives and vision.

Major reviews will also provide an opportunity to identify any 'lessons learned', adjust priorities for the next five year period where required and be responsive to further planning work undertaken by the Queensland Government (e.g. SEQ Regional Plan), new technical documents and legislative changes.

Performance Indicators

iGO's monitoring and review processes will be undertaken with the assistance of performance indicators including such measures as parking availability, public transport patronage, network usage, crash and incident analysis, household travel patterns and network connectivity.

As part of the development of the *iGO Performance and Data Strategy*, the required performance indicators, evaluation measures and data types required (including its collection and analysis) will be identified and implemented.

Data Collection

The delivery of iGO will require comprehensive, continuous and consistent data to be collected and analysed to ensure accuracy and comparability between performance indicators, annual report cards and five year reviews. This data is also important to the development of supportive iGO 'network' strategies, detailed project planning and community programs.

As outlined above, an *iGO Performance and Data Strategy* will be developed and implemented to assist with the effective delivery of iGO.



Actions

Council's way forward for the delivery of iGO is outlined in Table 38.

Table 38: iGO Delivery Actions

Action	Timing
D 1: Council to provide strong visionary leadership in the delivery of iGO to realise its vision and objectives. This includes taking a strategic approach to solving transport issues and ensuring the needs of the 'greater good' are taken into account when making transport planning related decisions.	O
D 2: Establish an <i>iGO Steering Group</i> to provide strategic direction in the delivery of iGO. The Steering Group will include cross-departmental representation and include political, bureaucratic (management & technical) membership.	O
D 3: Use iGO to assist with Council's transport planning, traffic management, road safety, investment planning, land use planning and development assessment activities.	O
D 4: Use iGO as an advocacy tool to assist with attracting investment partnerships and to lobby higher levels of governments for improved public transport services.	O
D 5: Undertake targeted stakeholder engagement activities (including community and user groups, traditional land owners, residents, business operators, developers and the general public) using traditional and modern communication methods. This includes data collection activities, implementation of community programs, public education and promotion initiatives and the planning and delivery of major transport projects.	O
D 1: Use the 'iGO' brand to market and associate all future transport related projects and initiatives to promote awareness and strong messages around iGO and its vision, objectives and outcomes. This includes further network strategies, area and corridor planning studies, community programs, investment planning and infrastructure projects.	O
D 7: Undertake, partner and sponsor research and development activities into transport related issues including the testing and uptake of new technology that align with the outcome of iGO.	O
D 8: Develop an annual rolling 10 Year Transport Infrastructure Investment Plan which is intrinsically linked to iGO outcomes and the iGO Resourcing Strategy (refer Action D13).	O
D 9: Undertake appraisal of major transport infrastructure proposals (sometimes referred to as 'business cases') will be undertaken to establish: <ul style="list-style-type: none"> Options & alternatives (including a 'do nothing' scenario); Impacts and risks (including their management / mitigation); Benefits realisation; Costings (full "whole of life" quadruple bottom line costs); Economic viability (e.g. benefit-cost ratio, net present value); and Funding, financing and delivery mechanisms (including market sounding). 	O
D 10: Produce of an <i>iGO Annual 'Report Card'</i> that will provide a snapshot of the achievements of delivering iGO over the previous year and the key actions for the next year.	O
D 11: Undertake minor revisions to iGO as required involving web-based adjustments only.	O
D 12: Develop and implement an <i>iGO Risk Management Strategy</i> to identify, manage and mitigate potential risks, constraints and conflicts relating to the effective delivery of iGO.	S
D 13: Develop and implement an <i>iGO Resourcing Strategy</i> to articulate the following elements for the delivery of iGO: <ul style="list-style-type: none"> Funding needs; Costing and affordability analysis; Lobbying efforts; Corporate capacity (including personnel, responsibilities, accountabilities, business processes, skills, expertise and organisational development); Innovative transport infrastructure funding and financing options for further consideration; and <i>Five Year Priority Action Plan (2016-2020)</i> 	S
D 14: Develop and implement an <i>iGO Performance & Data Strategy</i> . This shall include identifying: <ul style="list-style-type: none"> Performance measures and indicators; and Data needs and collection processes. 	S
D 15: Undertake a major review of iGO every five years (next being 2021).	S

NOTE: The above actions will be led by either Council and/or the Queensland Government with advocacy, support and/or investment partnerships between all levels of government.

O = On going

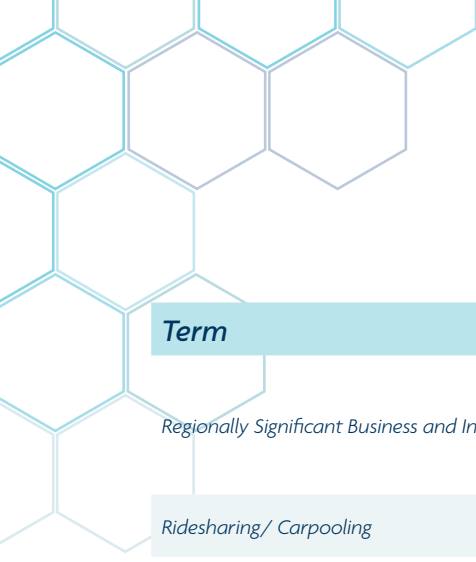
S = Short term (within the next 5 years)



Glossary

Term	Definition
Accessibility	The ease from which people can get from one place to another. Includes access by people with disabilities.
Active Transport	Form of transport which relies on human power. The most common form includes walking and cycling, through it also includes wheelchairs, mobility devices, skateboards, rollerblades and scooters.
Activity Centre	Community focal points for people, services, employment and leisure. Activity centres are further categorised as Principal Regional Activity Centres, Sub-regional Activity Centres and District Activity Centres and Townships.
ARTC	Australian Rail Track Corporation
Captive Rider	A person who does not have access to another form of meaningful transport and is therefore reliant on public transport.
Choice Rider	A person who has access to other modes of transport, such as their own private vehicle.
Complete Communities	Communities characterised by compact and mixed land uses with access to a large range of basic everyday goods, services, recreation and social interaction opportunities within a 10 minute walk, cycle or public transport ride from where people live. There is a focus on linking activity centres, streets as 'civic' places and diversity in type, size and design of buildings and open spaces.
Congestion	In the context of transport, a condition where the use of the piece of infrastructure exceeds the level at which it functions effectively.
Connectivity	Refers to directness of links and quality of connections.
Cycle Catchment	The area within a defined cycle time or distance from a key attraction/destination.
Cycle Track	Bicycle-only facility within the road corridor that has clear priority at intersections.
Density	Density is the number of 'things' per unit of land area. For example, population density is the number of people divided by the size of a given area while residential density is the number of residences divided by the size of the given area (dwellings per hectare is the commonly used Australian measure).
District Activity Centre	An Activity Centre which serves a catchment of district significance and accommodates the day to day needs of the local community. Yamanto, Brassall, Karalee, Booval, Redbank and Redbank Plains are the District Activity Centres in Ipswich.
DTMR	Queensland State Government Department of Transport and Main Roads
End of Trip Facilities	Facilities for cyclists and pedestrians which can include bicycle parking, lockers, change rooms and showers.
Feeder Bus Service	Bus services focused on transporting people to/ from a higher order, higher frequency public transport service (i.e. railway line), particularly during peak hour.
First and Last Mile (freight)	The initial or final part of a trip for the transport of freight. For example, to/from shops.
Greenfield Development	The development of land which lacks constraints imposed by existing buildings or infrastructure.
Growth Front	Area experiencing lots of new development and its associated pressures.
HFP	High Frequency Priority bus services operate at least every 15 minutes either during peak hours or all day, seven days a week.
Horizon	The extent (population/ year) to which the transport system detailed within iGO is designed to cater for.

Term	Definition
<i>HPHV</i>	Higher Productivity Heavy Vehicles. A PBS Vehicle is a type of higher productivity heavy vehicle.
<i>HVNL</i>	Heavy Vehicle National Law
<i>IAP</i>	Intelligent Access Program
<i>iGO</i>	The City of Ipswich Transport Plan
<i>Infill Development</i>	New development that occurs within established urban areas where the site or area is either vacant or has previously been used for another urban purpose.
<i>LGA</i>	Local Government Area
<i>Level of Service (Roads)</i>	Term used to measure road operating conditions based on driving experience/ comfort of motorists. For more information please refer to p. 91.
<i>Modes</i>	The different types of transport such as walking, cycling, private car and public transport (includes buses and trains).
<i>Mode Share</i>	The percentage of travellers using a particular type of transport.
<i>Mode Share Target</i>	The desirable percentage of travellers using a particular type of transport.
<i>NHVR</i>	National Heavy Vehicle Regulator
<i>Non-peak</i>	Refers to public transport services running in the opposite direction to the direction of the highest passenger volumes. For example, in the morning peak the highest passenger volumes on the Ipswich/ Rosewood Line would be on services running to the Brisbane CBD. The non-peak direction would be services running towards Ipswich.
<i>Off-street parking</i>	The parking of vehicles anywhere but on the street. Usually within dedicated parking facilities (i.e. multi-storey car parks), garages, driveways and at sporting facilities.
<i>On-street parking</i>	Public parking provided by Ipswich City Council and located within the road reserve.
<i>Orbital Network</i>	Network of roads around the edge of the urban area, designed to allow the movement of traffic from one side of the town to the other without going through the city centre.
<i>PBS Vehicles</i>	Performance Based Standards (PBS) Vehicles are a type of higher productivity heavy vehicle which are designed to offer higher levels of safety.
<i>Peak Hour</i>	The times of the day when most travel occurs, generally on working days in the morning and late afternoon to early evening when commuters travel between home and work and drop-off and pick-up children.
<i>PIA</i>	Priority Infrastructure Area
<i>Pilot Project</i>	Initial, small-scale implementation that is used to prove the viability of a project idea.
<i>Principal Regional Activity Centre</i>	A Regional Activity Centre which serves a catchment of regional significance and accommodates concentrations of employment. The Ipswich CBD and Springfield are the Principle Regional Activity centres identified for Ipswich.
<i>Public Transport</i>	Travel by modes such as train and bus which are provided for public use.
<i>Public Transport Hub</i>	Is defined as either a major point to access the public transport network or a major location which it is possible to change transport service (i.e. Ipswich CBD train station or a bus station on a strategic bus corridor).
<i>Public Transport Node</i>	Is defined as either a point to access the public transport network or a point through which it is possible to change transport mode (i.e. bus stop or train station).



Term	Definition
<i>Regionally Significant Business and Industry Area</i>	An area planned and allocated for industrial and business use that contains vacant sites that are suitable for the location of new or expansion of existing industrial and business uses that can collectively provide significant additional employment to the region. They are often located in areas with great access to transport infrastructure and labour markets.
<i>Ridesharing/ Carpooling</i>	An arrangement among a group of people to take it in turns to drive the other/s, or their children, to and from a designated place.
<i>Road Hieracrchy</i>	Defines the function, purpose, desired user and management requirements for all roads within the road network.
<i>SEQ</i>	South East Queensland
<i>SmartRoads</i>	A VicRoads approach to manage and prioritise the needs of different users on the road network.
<i>Strategic Bus Corridors</i>	These corridors are serviced by high frequency priority bus services and are identified as areas where higher density development would have the most benefit in delivery of transport outcomes.
<i>Sub-regional Activity Centre</i>	An Activity Centre which serves a catchment of sub-regional significance and accommodates concentrations of employment in a way which complements Principle Regional Activity Centres. Ripley and Goodna are the Sub-regional Activity Centres in Ipswich.
<i>Sustainable Travel Modes</i>	Travel by modes such as walking, cycling, public transport and ridesharing/
<i>Travel Demand Management (TDM)</i>	Travel Demand Management emphasises the movement of people and goods, rather than motor vehicles, and gives priority to more efficient travel modes.
<i>Unbundled Parking</i>	Where car parking spaces are rented or sold separately to building space (i.e. residential or commercial dwellings).
<i>Urban Footprint</i>	A regulatory boundary to contain urban growth, minimise speculation, protect natural landscapes and retain rural areas with agricultural value.
<i>Urban Sprawl</i>	Describes the expansion of human populations (i.e. houses and shopping centres) away from central urban areas (usually onto undeveloped land) into low-density, monofunctional and usually car-dependent communities.
<i>Veloway</i>	A high order, high standard cycling facility.
<i>VicRoads</i>	Victorian State Government Department of Roads and Transport
<i>Walkable Catchment</i>	The area within a defined walking time or distance from a key attraction/ destination.

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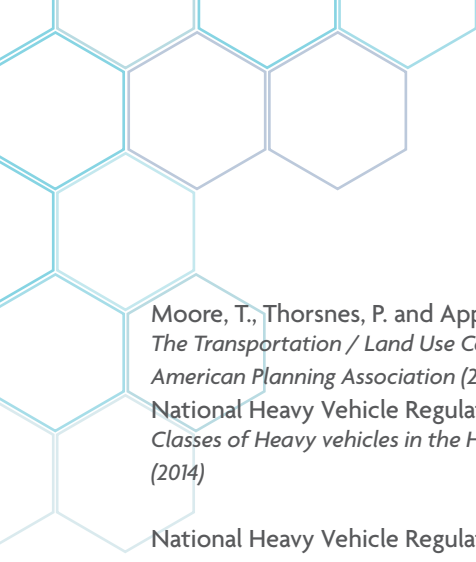
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This report is the culmination of nearly four years of strategic planning effort by Council in collaboration with many internal and external stakeholders.

The following people made considerable contributions towards the development of iGO including its inception, scoping, branding, project coordination, research, report writing and stakeholder engagement:

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Acknowledgements

Council's project team would like to acknowledge the support and direction provided by the steering group in the development of iGO:

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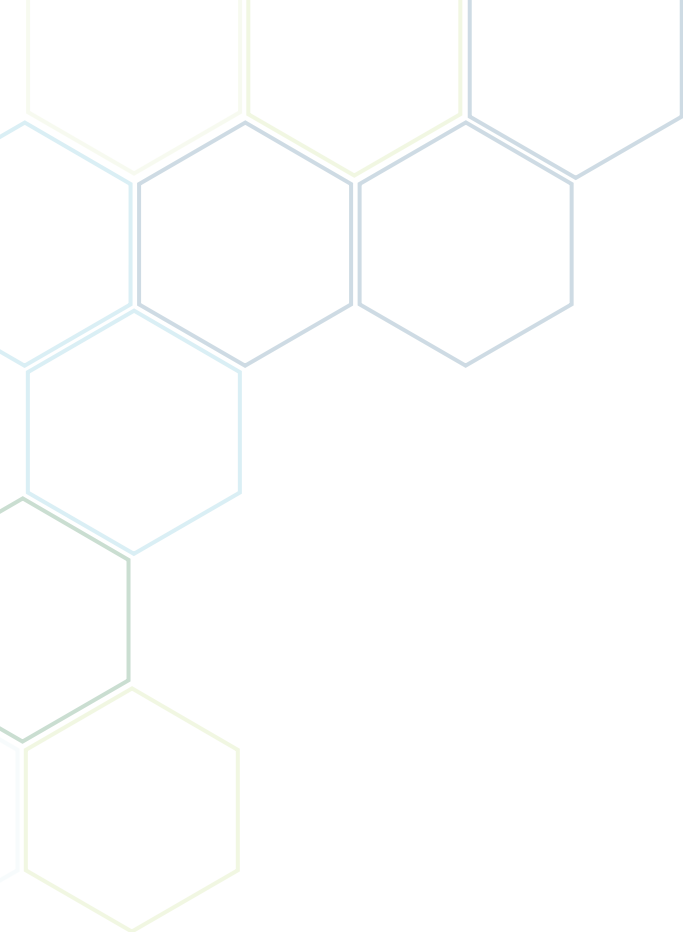
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