

Chapter 5 The Role of the Modes

5.1 INTRODUCTION

While this Regional Land Transport Strategy refers to the transport system in the region as a single entity, it is made up of different modes all with distinct roles and requirements. This chapter describes the appropriate roles of private motor vehicles, public transport, walking and cycling. It also describes how to provide for freight traffic.

5.2 OVERVIEW

The region has developed as a relatively low density, decentralised region. Travel in the region is characterised by large numbers of dispersed journeys.

The region's dispersed land uses and trip making have been enabled to a large extent by car ownership, which is one of the highest in the world. There were 530 cars per 1000 population in 2001. Also, the region's geography, with its harbours, volcanoes and ridges, has resulted in a roading pattern that is heavily constrained and which concentrates car trips in confined corridors in some locations.

While the Regional Growth Strategy will lead to changes in the region's pattern of development, and consequently to travel patterns, the changes will take time. Cars will remain the most predominate travel mode over the next 10 years. Also, the region's increasing population will lead to more car trips.

More travel choices are needed to reduce the reliance on cars. In some locations (such as the incomplete strategic road network) there is a need to give priority to private transport and to improve the efficiency of the network. In other locations (such as growth centres and other town centres) there is a need to give priority to other modes such as walking and cycling. On some urban arterial roads there is a need to recognise the people-carrying capacity of public transport and to give priority to buses.

While most trips will continue to be made by car, **public transport** has a number of key roles to play. Public transport can affect urban development by:

- Providing access to the centres and corridors identified for growth in the Regional Growth Strategy
- Carrying people in key corridors where demand is sufficiently concentrated to make good use of the inherent efficiency
- Offering environmental advantages where public transport can be given rights of way that bypass congestion.

Public transport also provides mobility for the significant minority of Aucklanders who do not have access to a car. And it provides choice for those who do not want to use a car, and provides targeted or specialised services to those who are unable to use other forms of transport.

Dispersed activities mean many trips can only realistically be served by motor vehicles (car or public transport). However, 18 per cent of trips to work in the morning are less than 2km (generally regarded as a realistic walking distance) and 60% are less than 7km (generally regarded as a realistic cycling distance). Journey-to-work data for 2001 shows that 3.5 per cent of all work trips are by walking and 1 per cent are by cycling.

There is increasing awareness that important health gains can be made by **walking**, and that increased walking will reduce the pressure on road space and improve the environmental sustainability of the transport system. This strategy recognises the need for a significant increase in the role of walking in the transport system, particularly for local trips. Also, as walking is a component of all public transport trips, any increased willingness to walk will increase the accessibility and coverage of the public transport



system. While advocacy and education will contribute to increased walking, the walking environment also needs to be improved.

Cycling has similar benefits to walking in terms of health, reduced pressure on roads and environmental sustainability. It also has many roles in the region, including providing access to destinations such as schools and work, as a lifestyle choice and as a form of exercise. While there is potential to increase cycling as a transport mode, it is limited because of the region's hilly terrain and inclement weather, the physical demands of cycling and concerns about the dangers of using busy roads.

The ability to move **freight** in an efficient, timely and reliable manner is vital to the continuing growth of the region's economy. Changes to freight patterns and logistics systems are placing increased reliance on good transport performance.

Rail has an important role to play in moving freight between regions, particularly to and from the Port of Auckland. It may be possible to increase the role of rail freight in particular niches, such as serving inland ports, and so take pressure off key parts of the road network. However, rail has limited coverage of the region, requiring cargoes to be transferred to trucks to reach their final destination. This requirement for double handling means most freight trips will continue to be by road.

The Regional Land Transport Strategy includes a number of measures to improve conditions for freight. Also, a number of road improvements are expected to benefit freight. However, freight will continue to move on many of the same congested corridors as cars. Therefore, the main thrust of this strategy is to improve reliability on key road links for all traffic, including trucks.

5.3 ROLE OF RAIL

Rail has considerable latent potential to provide for the safe and efficient movement of passengers and freight throughout the region. Because rail operates within its

own dedicated corridor, it is not subject to the same congestion that leads to inefficiencies with road based modes of transport. In terms of freight movement, it has the potential to replace some heavy trucks on the road network thereby reducing potential conflict between these heavy vehicles and other road users (including cyclists and pedestrians).

There is capacity within the rail network to cater for additional passenger and freight traffic and the current under-utilisation of this mode represents an inefficient use of resources when taking into account the capital expenditure (both past and present) on infrastructure associated with the rail network.

In addition to the existing network, there is potential to expand the rail network to provide for additional passenger and freight services. Expansion of the rail network would assist in providing for additional alternatives to road-based modes and improving the safety and efficiency of those modes.

Rail is addressed further in the role of public transport and providing for freight traffic.

5.4 THE ROLE OF PRIVATE VEHICLES

Privately owned vehicles are expected to carry the greatest number of people in the region for the foreseeable future. Making this inevitable is the relatively low-density development of the region, the dispersed nature of trip origins and destinations, the high car ownership and low car costs, and a relatively good roading system compared to public transport. The rural parts of the region are particularly reliant on private transport.

The dispersed nature of trips means that the car is the most flexible and convenient mode to access many of the region's economic, social, cultural and recreational opportunities. Cars give most Aucklanders a wide choice of living and work locations. Most Aucklanders use and value that choice, and car use is an important part of their lifestyles.



Similarly, private vehicles enable the region businesses to locate in the area that best suits their needs while giving them good access to resources and markets. Many private vehicle trips are undertaken as part of day-to-day business. For many businesses the roading system is crucial to their success. Retaining flexibility while ensuring that businesses locate where they are best supported by the transport system will be an important part of the region's continued economic growth.

The adverse environmental, economic or community effects of catering for the increasing demand for car use are becoming unacceptable in some locations. Increasing demand for car use could impact on the region's ability to manage urban expansion, mitigate air and water pollution and improve the region's health, safety, and wellbeing - all impacts that threaten the region's environmental quality and economic success.

Some of the adverse effects of continued motor vehicle use will be managed through complementary measures. A major initiative will be more investment in public transport infrastructure and increased service levels where these can provide a realistic alternative to car use and support land use strategies. Other measures - including road pricing, flexible working arrangements and encouraging shorter trips by walking or cycling – are discussed in Chapter 8 as part of travel demand management.

The policies and methods related to private vehicle transport are in Chapter 7. The expected outcome for this mode is discussed in Chapter 9 and a list of measures for monitoring private vehicle activity is outlined in Chapter 10.

Chapter 6 of the Regional Land Transport Strategy outlines the scale of roading investment recommended in the region over the next 10 years. The strategic option chosen indicates that in order to meet the objectives of this strategy, the region needs to spend 28 per cent of the allocated funding on roading infrastructure, 7 per cent on safety and traffic management measures, and 26 per cent on maintenance and renewals.

Most of the key roading improvements required are known and understood, and will be identified in the land transport programmes of Transit New Zealand and ARTA and the long term council community plans of the region's local councils.

5.5 THE ROLE OF PUBLIC TRANSPORT

Public transport – the region's existing buses, trains and ferries – generally provides travel that is safer, more space and energy efficient and generates fewer emissions per person carried than travel by car. Public transport's main limitation is that it is not always good at serving dispersed trip patterns.

Public transport has a number of distinct but related roles in mid-sized to large urban areas such as the Auckland region. These roles are to support strategic regional land use objectives (**shaping the region**), to improve the efficiency and effectiveness of the overall transportation system (**moving Aucklanders**), to provide better mobility and access for those who do not have access to a car or who choose to use passenger transport (**building community**), and to provide an environmentally lower impact transport choice than the car for a wide variety of trips (**environmental sustainability**).

Shaping the region: Transport investment will shape the region as it grows. Public transport investment will support the Regional Growth Strategy, and provide added value and confidence for development and a sense of permanence. It will support the development of growth nodes, where people can choose a lifestyle that is not dependent upon the car.

A **rapid transit network** will make the major contribution to shaping the region. This will require a fast, high frequency service in its own right of way where it is unaffected by traffic congestion. The rapid transit network will connect the major growth centres to the Auckland CBD. It will include the Northern Busway and the western, southern, and isthmus rail corridors, and future planned corridors. A similar role will be performed by some ferry services that exhibit



the qualities of a rapid transit network. As well as moving large numbers of people, the network will encourage more intensive urban development along the corridors and in the key growth centres it serves.

Moving Aucklanders: Passenger transport services and infrastructure will enhance mobility by providing capacity and service that offers a realistic travel option to car travel between key destinations. This role will be provided by the **rapid transit network** described above, together with and connecting at key hub stations to a **quality transit network** comprising mainly high-quality bus, ferry and some rail services and routes. These are described in detail in Chapter 7.

The **quality transit network** will be a network of fast, high frequency, and high-quality transit services operating between key centres and over major corridors providing extensive transit priority. They will include high quality passenger facilities and information. The network's main role will be to connect key centres¹ and to facilitate, in conjunction with the rapid transit network, high-speed reliable access around the region. It will consist of integrated radial and cross-town services designed to best connect the region's key centres.

Building community: Public transport services and infrastructure will build communities by providing the basic accessibility necessary for people to participate fully in their communities. Targeted services will be provided in the urban area to meet the specific mobility needs of those with disabilities. The building community role will be achieved through the **local connector network** and by **targeted services**. The **local connector network** will involve local bus, ferry and train services providing access to local centres – including where appropriate rural communities and connecting with the rapid transit network and/or the quality transit network. Priority measures will be provided at key congestion points to improve service reliability. Service frequency will be determined by demand, but with a minimum service level specified to ensure that accessibility does not fall below an acceptable level. **Targeted services** will provide

mobility for groups for whom the regular public transport network is not adequate. They will include the Total Mobility service for people with disabilities, fare concession schemes, and school bus services.

Environmental sustainability: Public transport services and infrastructure will contribute to environmental sustainability by enhancing the energy efficiency of the transport sector and by reducing emissions.

Public transport has an inherent environmental advantage over car travel in that it can move more people more efficiently from point to point. However, this advantage can be eroded if public transport trips carry few passengers or if public transport vehicles are badly maintained or tuned. It is therefore important that public transport routes are designed to ensure good use and that processes are in place to ensure that vehicles have low polluting engines and vehicle components.

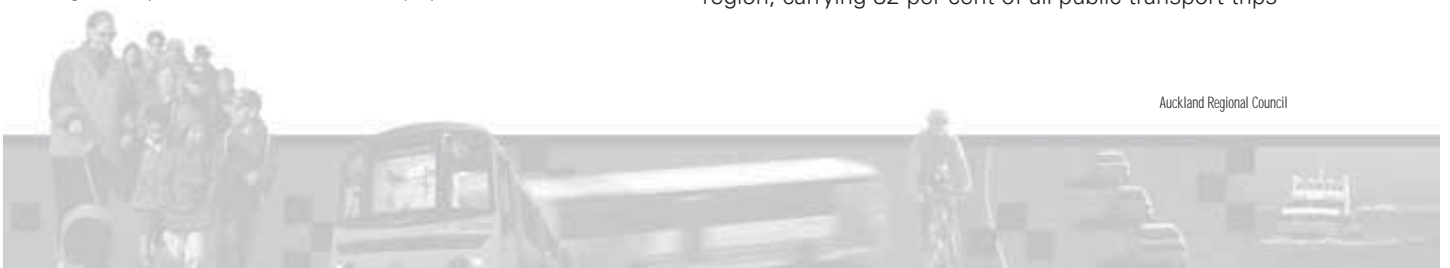
A number of transport modes will each need to play its part if public transport is to fulfil its roles in shaping the region, moving Aucklanders, building communities and environmental sustainability.

Passenger rail will provide frequent and fast services along the western, eastern and southern rail lines. While rail will never directly serve the majority of residents and businesses in the region, it has the capacity to move large numbers of passengers through critical congested locations. The location of the rail corridors makes passenger rail particularly important to provide access to the CBD. Rail service coverage can be improved by utilising existing rail tracks north of Swanson and connecting to Onehunga.

Another key attribute of passenger rail is its ability to act as a lever for more intensive urban development around growth centres. It does this by providing a fast, frequent service between key growth centres on fixed infrastructure, which provides confidence to the development market and an added attribute to the growth centre. This in turn provides more users to the rail system.

Buses are the staple public transport mode in the region, carrying 82 per cent of all public transport trips

¹ High density centres and corridors and employment centres.



in 2004. Buses are expected to continue to carry a large majority of total public transport passengers. They will form the northern corridor component of the rapid transit system, linking the key northern sub regional centres with the CBD. Buses will continue to service suburban areas as well as providing a transport service on most of the region's arterial roads both in a radial pattern originating from the CBD and on cross-town routes. As such, bus services will form almost all of the quality transit network and the local connector network. Buses will also provide connections to rural communities where appropriate. There is the potential for greater integration between bus and rail services in the region.

Bus stops and bus stations are the 'shop window' for the entire public transport system and are the nodes where cycling, walking and passenger transport networks come together.

The management of bus stops and bus stations is important to the network as the majority of incidents that put the public off using public transport occur at local bus stops. These include excessive waiting due to unreliable services, dangerous road crossings, lack of shelter and lack of information. Lack of shelter can have serious consequences for older people, who are major users of off peak services and who are expected to double as a proportion of Auckland's population within a generation. An improvement of conditions at bus stops and stations is beneficial to the entire public transport network.

School bus services are an important part of the transport network for school trips. They provide a convenient and safe form of travel to and from schools and have the potential to remove a significant amount of school traffic from the roading network. This would release much needed road capacity for business traffic, particularly in the morning peak. This strategy envisages an increase in the provision and use of the school bus service as part of travel demand management.

Ferries provide the most direct connection between many maritime suburbs and the CBD. These suburbs include Waiheke, Devonport, Birkenhead and Half Moon Bay. The development of the Britomart

Transport Centre has enabled a direct link between ferries and other public transport modes. More improvements to ferry terminal infrastructure along with new and more frequent services will further improve ferry transport within the region. The CBD to Devonport and CBD to Waiheke services are components of the rapid transit network while the other ferry services will be part of the quality transit network. Some less frequent ferry services such as Gulf Harbour and Pine Harbour Marina may form part of the local connector network.

Taxis and shuttles have a role to play in providing public transport. Their use reduces the need for parking and can be more efficient than cars. The Total Mobility scheme in the region also uses taxis and taxi vans. This scheme is designed for groups with disabilities that mean they cannot access any other travel modes comfortably.

To realise the full potential of the region's public transport network, it will be necessary to develop an interconnected and integrated network that enables timely and reliable movement and appropriate access to regional and local centres. All the components of the public transport system will have a high degree of linkage and coordination between them with the aim of developing a system that is seamless for users. The introduction of integrated ticketing and fares between public transport modes and operators will assist in ensuring that the network is efficient and affordable for users.

Chapter 6 of the RLTS outlines the scale of public transport investment recommended for the region over the next 10 years. The strategic option chosen indicates that in order to meet the objectives of this strategy the region needs to spend 19 per cent of the allocated funding on public transport infrastructure and 16 per cent on provision of services.

The public transport improvements required to meet the outcomes sought for this strategy will be identified in detail in the Passenger Transport Plan prepared for the region by ARTA. Further information on planned improvements to public transport is contained in the land transport programmes of ARTA, Transit NZ and



NZ Rail Corporation and the long-term plans of the region's local councils.

Further policies and methods related to public transport modes are contained in Chapter 7. The expected outcome for this mode is discussed in Chapter 9 and list of measures for monitoring public transport are outlined in Chapter 10.

Improvements to public transport are an important component of the travel demand management strategy for the region. Section 8.3.2 of Chapter 8 describes the importance of public transport in providing for travel choices.

5.6 THE ROLE OF WALKING

Walking is often the quickest and most efficient way to make short trips. It is also an essential and widely used mode of transport. Half of all household travel in the region involves walking, sometimes in combination with other transport modes. These trips are usually made in and around local communities, with journeys made by school age children featuring highest. The benefits associated with walking include improvements to health, increased social interaction and minimal adverse environmental effects.

The Regional Land Transport Strategy advocates increased walking as a mode of transport, beginning with implementation of the Regional Walking Strategy. The vision of the strategy is for the Auckland region to be safe, easy and enjoyable to walk in. The strategy hopes to encourage walking as a natural choice for short journeys in and around local communities by providing pleasant, safe and direct access for pedestrians. Achieving increased walking levels will require improvements to the urban design of the built environment as well as commitment by the implementing agencies and local communities.

The envisaged outcomes are:

- Pleasant, safe and direct access for pedestrians
- Walking is a natural choice for short journeys in and around local communities

- The use of walking is on the increase and pedestrian injury rates are declining
- Higher levels of pedestrian activity result in an increase in community cohesion and safety.

Walking is an essential and widely used mode of transport with half of all household travel in the region involving walking, sometimes in combination with other transport modes. These trips are usually made in and around local communities, with journeys made by school age children featuring highest.

Achieving the objectives outlined in the Regional Walking Strategy will require improvements to the urban design of the built environment as well as commitment by the implementing agencies and stakeholder communities.

There is a strong relationship between walking and use of public transport. Most public transport trips involve walking from the trip origin to the public transport route, and from the public transport route to the trip destination. For public transport to fulfil the role ascribed to it by this strategy, the walking access to public transport will need to be direct, pleasant and safe.

There is growing concern that the region's roading environment is becoming increasingly unpleasant, inconvenient and unsafe for pedestrians. This is particularly so on the main roads (collectors and arterials) that pass through urban communities. The concern is compounded by statistics that show pedestrians account for one-third of all fatalities on the region's urban roads (LTSA 2003), and that pedestrian injuries are the leading cause of death from unintentional injury for the region's children (IPRU 2003), particularly during the journey to and from school.

Pedestrians in rural communities are faced with even greater hazards because there is limited or no pedestrian infrastructure. For example there are often no pedestrian crossings or footpaths in an environment of greater road speeds and poor road visibility. For rural school children the risks and hazards are high with schools generally located on open



roads with high speed limits. Rural pedestrian safety is further compromised by motorists not expecting pedestrians, and by the variability of the traffic frequency and volume.

One of the challenges facing the region is to support walking as an alternative to car use, especially for short journeys. This will be particularly important in the more densely developed, mixed use areas promoted by the Regional Growth Strategy where the closer proximity of activities will give opportunities for a higher percentage of shorter trips.

Chapter 6 of the strategy outlines the scale of investment in the region over the next 10 years for travel demand management, including walking. The strategic option chosen indicates that to meet the objectives of this strategy the region needs to spend approximately 4 per cent of the available funding on travel demand management measures. This includes walking infrastructure and operations. Walking infrastructure includes footpath upgrades, town centre improvements, more direct pedestrian links and crossings, and improved pedestrian amenities.

Walking improvements required in the region will be identified in the land transport programmes of Transit New Zealand and ARTA, along with the long-term plans of the region's local councils.

Policies related to walking improvements are contained in Chapter 7. The expected outcome for this mode is discussed in Chapter 9 and a list of measures for monitoring pedestrian activity is outlined in Chapter 10.

Walking improvements are an important component of the travel demand management strategy for the region. Section 8.2.2 of Chapter 8 describes the importance of walking in providing for travel choices.

5.7 ROLE OF CYCLING

The benefits of cycling as a mode of transport are widely recognised. Cycling is environmentally friendly, sustainable and the most energy efficient mode of transport. It presents a viable travel alternative

to private vehicles, especially for short to medium length trips, and offers health benefits by encouraging physical activity. Cycling is a cost-effective mode of transport and requires less space than motor vehicles in terms of travel space and parking area. As cycling is well suited to shorter trips, it has the potential to complement the public transport network and the land use strategies envisaged for the region. Given these benefits, the Regional Land Transport Strategy encourages increased cycle use.

A strategic approach is required to identify and implement the needs of cyclists in both rural and urban environments terms of road space requirements, provision of facilities and developing road user safety/awareness. One of the key actions is the development of a regional cycle network to provide cycling connections between major destinations.

The key strategic goals for cycling in the region will be implemented through the specific strategies and actions outlined in the Regional Cycling Strategy. The vision of more cycling encompasses the following outcomes:

- Cycling is safe, direct and pleasant
- Cycling is a natural choice for short journeys
- The numbers of people cycling are increasing
- Cycling safety is continually improving
- The quality of infrastructure will be improved

Planning for cycling facilities and expanding the role of cycling as a viable mode of transport for shorter journeys will be an important element of supporting intensification around selected growth centres and corridors, transport nodes and development of greenfield sites.

Chapter 6 of the Regional Land Transport Strategy outlines the scale of investment in the region over the next 10 years for travel demand management measures, including cycling infrastructure and operations.



Cycling improvements required in the region are to be identified in the land transport programmes of Transit New Zealand and ATRA along with the long term council community plans of the region's territorial authorities.

Further matters related to cycling are contained in Chapter 8. The expected outcome for this mode is discussed in Chapter 9 and a list of measures for monitoring cycling activity is outlined in Chapter 10.

Cycling improvements are an important component of the travel demand management strategy for the region. Section 8.3.2 of Chapter 8 discusses the importance of cycling in providing for travel choices.

5.8 INTEGRATING THE MODES

To enable the development of an integrated, safe, responsive and sustainable land transport system it is important that all modes are seen as parts of a whole transport system. All transport modes integrate and over time it is expected that more trips around the region will be multi-modal trips. There are a large number of trip mode combinations that people can make. Some more common combinations include;

- Private vehicle to pedestrian trips
- Pedestrian to bus to train to pedestrian trips
- Cycle to bus to pedestrian trips
- Private vehicle to public transport to pedestrian trips
- Pedestrian to ferry to bike trips
- Bus to ferry to bus to pedestrian trips
- Bike to public transport to pedestrian trips.

It is important that the different modes integrate well to ensure that the transition from mode to mode is as quick, convenient and safe as possible. Table 5.1 illustrates how mode integration can be improved between the modes.

Park & Ride and Kiss & Ride facilities need to be located within close proximity to the public transport stations and should provide a connection which protects the passenger from the elements. However, regard must be taken of the importance of other transport supportive urban activities and good urban design when Park & Ride and Kiss & Ride are located within high density centres.

Within the public transport mode it is important that there is integration between the Rapid Transit Network, the Quality Transit Network and local connector networks. While this may result in some additional transfers between services it should ultimately lead to a faster more convenient public transport trip which opens up many more destinations for passengers.

As walking is a component in all public transport trips and many private vehicle trips it is important that direct, attractive, and safe walking connections to stops, stations and park parking facilities are provided.

Cycling trips have potential to support the public transport network and to link communities to the public transport network where these communities are not within a convenient walking distance of the rapid transit or quality transit network. However, to encourage this integration, safe cycling routes with bike storage facilities need to be provided.

5.9 PROVIDING FOR FREIGHT TRAFFIC

Freight traffic involves moving goods, generally as part of a commercial transport arrangement. It includes light and heavy freight traffic by road, rail and sea. Freight includes everything from documents delivered by a courier to the land based movement of shipping containers to the movement of heavy machinery.

The Auckland region is New Zealand's major centre for transport and communications and wholesale trade, and has the country's principal seaport and airport for international shipping, passengers and airfreight. It acts as a service and distribution centre for all of New Zealand. Sixty five per cent of New Zealand's imports



	Private Vehicle	Bus	Ferry	Train	Walking	Cycling
Private Vehicle		Park & Ride Kiss & Ride	Park & Ride Kiss & Ride	Park & Ride Kiss & Ride	Direct walking connections to/from parking facilities	
Bus		Integrated ticketing, timetables and pedestrian connections	Integrated ticketing, timetables and pedestrian connections	Integrated ticketing, timetables and pedestrian connections	Direct walking connections to and from bus stops and stations	Safe cycling links to bus interchanges, bike storage or bike cartage facilities
Ferry			Integrated ticketing, timetables and ferry terminals	Integrated ticketing, timetables and pedestrian connections	Direct walking connections to and from ferry terminals/stops	Safe cycling links to ferry terminals/stops, bike storage or bike cartage facilities
Train				Integrated ticketing, timetables and platform connections	Direct walking connections to and from train stations	Safe cycling links to train stations, bike storage or bike cartage facilities
Walking					Direct pedestrian links.	Bike storage facilities located adjacent to key activities.
Cycling						Regional cycling network

Table 5.1: Integration between the modes

and 31 per cent of exports by value pass through Auckland's ports and airport.

The wealth of the region relies heavily on the productivity of the business community. The region's productivity is dependent on an effective transport system to move resources to where they are needed and to take products to markets. If the transport system does not enable these movements to take place efficiently, the competitiveness of the region's business and rural sectors will decline.

A separate document entitled "Auckland Regional Freight Strategy" details the issues, policies and actions for managing freight transport in the region. A 'stand alone' strategy has been developed because of the importance and complexity of this activity. The Auckland Regional Freight Strategy both informs and supports the Regional Land Transport Strategy.

The Regional Land Transport Strategy confirms the key policy outcomes and priority actions of the Regional Freight Strategy. It aims to improve the efficient distribution of freight within the region while providing for safe freight operations that are environmentally sustainable and which minimise adverse impacts on other community activities.

The vast majority of freight movements within the region are carried out by truck and light commercial vehicles using the road network. Trucks and other commercial vehicles make use of a congested roading system, which is at capacity for many hours of the day. The resulting delays have a serious effect on the efficiency of "just in time" delivery services, which have proliferated in recent years. There is also a movement towards more flexible working hours. This allows for commercial traffic to operate out of normal peak times, and reduces traffic flows accordingly.



In some circumstances these flexible operating arrangements are restricted by requirements on heavy freight traffic and commercial properties to minimise any potential disruption to local communities. The impacts of these restrictions need to be carefully assessed by balancing gains in reduced congestion against preserving the amenity of local areas.

The stance taken in the Regional Land Transport Strategy is to provide accessibility for all traffic, including freight traffic, and to provide for freight traffic on regional arterial and strategic routes. This approach recognises that traffic congestion affects freight movement at some key locations on regional and strategic routes, and that appropriate measures are needed to relieve this congestion. This is particularly important on routes that connect to strategic links in Auckland's logistic chain such as the sea and air ports.

The strategy also aims to reduce pressure on the road network by introducing carefully considered travel demand management measures where appropriate, reducing demand for road space by improving the

public transport network, and through the provision of additional roading. All of these measures are designed to assist commercial as well as general traffic, with the roading projects assisting freight and other commercial traffic directly.

The western, eastern and southern (south of Mt Wellington) rail lines in the region provide a largely under-utilised capacity for heavy freight movements. Rail is largely used for bulk transfers to and from other regions, and this trend will continue as "freight hubbing" policies are adopted by shipping companies and major manufacturers. However, rail could move more freight within the region with the development of freight hubs such as inland container ports. This would not reduce truck movements on the region's roads but could help in changing the location of these movements.

The Auckland Regional Freight Strategy outlines how the efficient distribution of freight within the region will be undertaken. Policies related to freight traffic are contained in Chapter 7 (policy 2.4) of this strategy.

