Adoption of the 2015 Regional Land Transport Plan

Recommendations

That the Committee:

i. Adopt the 2015 Auckland Regional Land Transport Plan.

ii. Delegates to the Chair and Chief Executive sign-off of the final document following incorporation of any comments by the Regional Transport Committee.

Executive summary

This report presents the 2015 Regional Land Transport Plan (RLTP) for the approval of the Regional Transport Committee (Attachment 1).

In adopting the RLTP, the Board is acting in its capacity as the Regional Transport Committee (RTC) for Auckland. The RLTP has been amended in light of the Committee's requirements following public consultation and the finalisation of the Transport Agency's and Auckland Transport's programmes.

Strategic context

The Land Transport Management Act requires the preparation of a RLTP every three years covering all significant transport activities in Auckland, including those undertaken by the Transport Agency, AT and KiwiRail.

This Auckland RLTP has been developed in conjunction with the Transport Agency and incorporates the State Highway programme. It was also developed in conjunction with AC's Long Term Plan and incorporates the Accelerated Transport Programme. Together with KiwiRail's improvements to the rail network, these programmes will form the basis of the master programme for all transport services and improvements in the 2015-18 period in detail and in outline for the following seven years.

Changes to the Land Transport Management Act in 2013 made the RLTP the region's key strategic document for transport, and removed the requirement to prepare a separate Regional Land Transport Strategy. The Integrated Transport Programme has developed a summary document which provides strategic direction and a prioritised work programme for transport in Auckland, and these are reflected in the attached RLTP.

Background

The RLTP:

- Sets out the strategic direction for transport in Auckland including how transport agencies in the region propose to give effect to the transport components of the Auckland Plan
- Is consistent with the Government Policy Statement on Land Transport 2015/16 – 2024/25
- Brings together objectives, policies and performance measures for each mode of transport
- Sets out a programme of activities to contribute to this strategic direction
- Includes transport activities to be delivered by the NZ Transport Agency, AT, KiwiRail, the NZ Police and AC

Feedback from Consultation

The draft Regional Land Transport Plan in conjunction with the AC Long Term Plan was released for public consultation between 23 January and 16 March 2015. Over 27,000 written submissions were received, over 1,000 Aucklanders attended public meetings to share their views in person and 1,354 submissions were received through social media.

In addition to the joint events held with AC, AT on behalf of the RTC hosted two hui and a Transport Event, at which 30 key stakeholders and Local Board Chairs presented.

The key transport themes arising from submissions and verbal presentations are that submitters:

- want and will use better public transport, but it has to be convenient, reliable and quicker
- want to walk and cycle but it has to be safe
- want funding to be reallocated towards public transport, walking and cycling
- want better transport but have mixed views on how to raise the additional investment required

In April 2015, the RTC agreed that the following changes be made to the Regional Land Transport Plan:

a) Add new sections discussing how Maori outcomes and Local Board projects and priorities are reflected in the transport programme;

b) Strengthen the section on inter-regional significance by including a table discussing the importance of the various links and activities;

c) Subject to a successful conclusion of the feasibility study, operational funding for the investigation of Light Rail as a specific project;

d) Improve the information in the Regional Land Transport Plan regarding infrastructure required for growth projects, developer contributions and the funding of growth projects; and

e) Include a section discussing environmental issues

These changes have now been made to the RLTP along with other changes to reflect AC's final LTP and input from the Transport Agency on their programme of work. In addition the RLTP has been rewritten to take into consideration that AT is now proposing the Accelerated Capital Programme as opposed to the Basic or Auckland Plan Transport Networks discussed in the draft document.

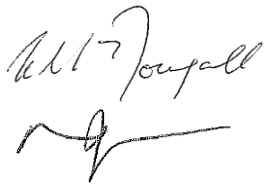
Next steps

The final RLTP amended to reflect the outcomes of public consultation and of Regional Transport Committee, Auckland Council and the Transport Agency's decisions must be published by **30 July 2015**.

Attachment

Attachment Number	Description
1	2015 Regional Land Transport Plan

Document ownership

Submitted by	Stuart McDougall **RLTP Funding Manager** Nicki Lucas **Revenue & Analysis Manager**	
Recommended by	Richard Morris **Chief Financial Officer** Peter Clark **General Manager, Strategy & Planning**	
Approved for submission	David Warburton **Chief Executive**	

Glossary

Acronym	Description
AC	Auckland Transport
AT	Auckland Transport
LTP	Long Term Plan
RLTP	Regional Land Transport Plan

Auckland Regional Land Transport Plan 2015–2025

New Zealand Transport Agency, KiwiRail, Auckland Transport, Auckland Council

Introduction from the Chairman

The compelling narrative for the next ten years in Auckland is one of growth and how we appropriately respond to that growth. Auckland is already New Zealand's largest city by far, and the powerhouse of its economy. With Auckland set to grow by around 270,000 people over the next ten years, the transport needs of its commuters, businesses, students and visitors will grow in parallel.

The key organisations responsible for delivering transport infrastructure and services in Auckland - Auckland Transport, KiwiRail, and the New Zealand Transport Agency need to respond to this challenge:

- We need to be bold - as an exemplar, introduction of the electric trains has vastly improved the customer experience for public transport at the same time as helping keep cars off the road. As with the introduction of electric trains, the City Rail Link will address many issues at once, further helping to unlock the potential of Auckland
- We need to be innovative - yesterday's thinking will not solve tomorrow's problems
- We need to ruthlessly drive efficiencies to get the most from every dollar
- We need to work even more closely and collaboratively together, pooling our talents and resources
- We need to put Aucklanders, our customers, at the heart of every decision

The overwhelming public response to consultation on Auckland Council's draft Long-Term Plan and the draft Regional Land Transport Plan show that Aucklanders agree that transport infrastructure is crucial for meeting the growth challenges Auckland is facing. In response, Council has introduced an Interim Transport Levy to provide increased funding for transport projects over the next three years. The New Zealand Transport Agency will co-invest in many of these projects. Walking and cycling projects will be supported by the Ministry of Transport's $90 million Urban Cycleways Fund, and Council has announced further funding for transport projects in Special Housing Areas, which can be funded using development contributions.

This final RLTP sets out a programme of transport improvements for Auckland which will make real progress towards reducing congestion, improving freight reliability and increasing the attractiveness of public transport travel, including:

- Completion of the Waterview connection
- Starting the City Rail Link
- Supporting the successful roll out of the new public transport network by building transport interchanges in Manukau, Pukekohe, Otahuhu and Te Atatu
- Planning and land purchase for key arterial routes including the East-West connection and the North-Western busway
- Significant investment in improving road safety and efficient movement of people, services and goods

- A significant increase in walking and cycling investment
- Additional sealing of rural roads
- Investigation of light rail transit

I’m excited about the challenges ahead, and the real difference that we can make to the lives of people living, working and studying in Auckland.

Dr Lester Levy, CNZM
Chairman Regional Transport Committee

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1. Executive Summary

One thing is certain about Auckland's future - Auckland is going to grow. Its population will grow and with it its economy and the expectations of its many people and its businesses. Auckland's population grew by the equivalent of Tauranga between 2006 and 2013 and this rate of growth will increase. Auckland's economy will grow faster than the rest of New Zealand and the performance of key infrastructure, such as its airport and port will be a key determinant of New Zealand's growth potential. Visitor numbers will grow significantly and almost half of all tertiary students in New Zealand will study in Auckland.

The Regional Land Transport Plan (RLTP) forms part of the National Land Transport Programme and represents the combined intentions of the New Zealand Transport Agency, Auckland Transport and KiwiRail to respond to growth and other challenges facing Auckland in the next ten years.

The Plan builds on a strong base:

- Recent and on-going service improvements such as the Western Ring Route, new electric trains and the progressive roll out of the Auckland Manukau Eastern Transport Initiative (AMETI) programme will improve Auckland's liveability for commuters and aid the movement of freight
- There is a high degree of certainty on which to base planning. The Government Policy Statement for Transport has been confirmed. The Transport Agency has now completed the National Land Transport Programme. There is an Auckland Plan with considerable discussion of transport and growth matters and the Board of Auckland Transport has recently set its strategic priorities.
- The Transport Agency’s and Auckland Transport’s infrastructure is already in place and being maintained to an adequate standard with relatively small backlogs of deferred maintenance in the next three years of the plan.
- The public is shifting to public transport in record numbers, relieving road congestion and allowing population growth to be accommodated without a proportional need to increase the road network
- Auckland's walking and cycling network is undergoing rapid development with a commitment to continue to extend this in the future

This RLTP highlights the many things the three agencies need to deliver in order to achieve Auckland's potential. With constrained funding, the way in which initiatives are prioritised and the integration of the whole plan are vital to success.

The currently funded 10 year plan will deliver:

- additional 45kms of bus lanes (including the Airport route, Ellerslie-Panmure Highway, Pakuranga Road, Ti Rakau Drive, parts of Great South Road and Great North Road, Greenlane West, Mt Eden Road, Manukau Road and Remuera Road)
- Double decker buses enabled on 42kms of the frequent bus network
- Essential New Network infrastructure completed – interchanges at Otahuhu, Manukau, Te Atatu, Pukekohe and Silverdale
- Park and Ride extensions at Silverdale and Papakura, replacement facilities at Glen Eden and Hobsonville
- 600 bus stops
- 52.4km of the Auckland Cycle Network
- A $4 million contribution towards Local Board walking and cycling initiatives (including greenways)
- $6 million for new footpaths around the region
- The completion of already committed projects (e.g. the Albany Highway Upgrade),
- Local road initiatives that integrate and optimise State Highway and other recent investments (e.g. Te Atatu Corridor delivered by 2017 to support the Western Ring Route), and improvements to intersections on Kirkbride Road to complement work underway to improve the motorway connection to the airport
- Route optimisation / network operating plan initiatives including 30 minor network efficiency improvements by 2018 and implementation of other efficiency interventions such as dynamic traffic lanes
- $5.7 million invested in public transport safety and security improvements (fencing, gating, CCTV etc.)
- $69 million of investment in the AMETI and East West Connection projects.

The Transport Agency is proposing to spend $2.2 billion in the first three years of the RLTP and $3.8 billion over the ten year period, with the major state highway projects being:

- completion of the Western Ring Route by 2021
- additional lanes at bottlenecks for SH1 (from Greville Road in the north, and from Takanini in the south)
- the Puhoi to Warkworth new motorway

Figure 1: Funding available to Auckland Transport and the Transport Agency for network improvements and renewals

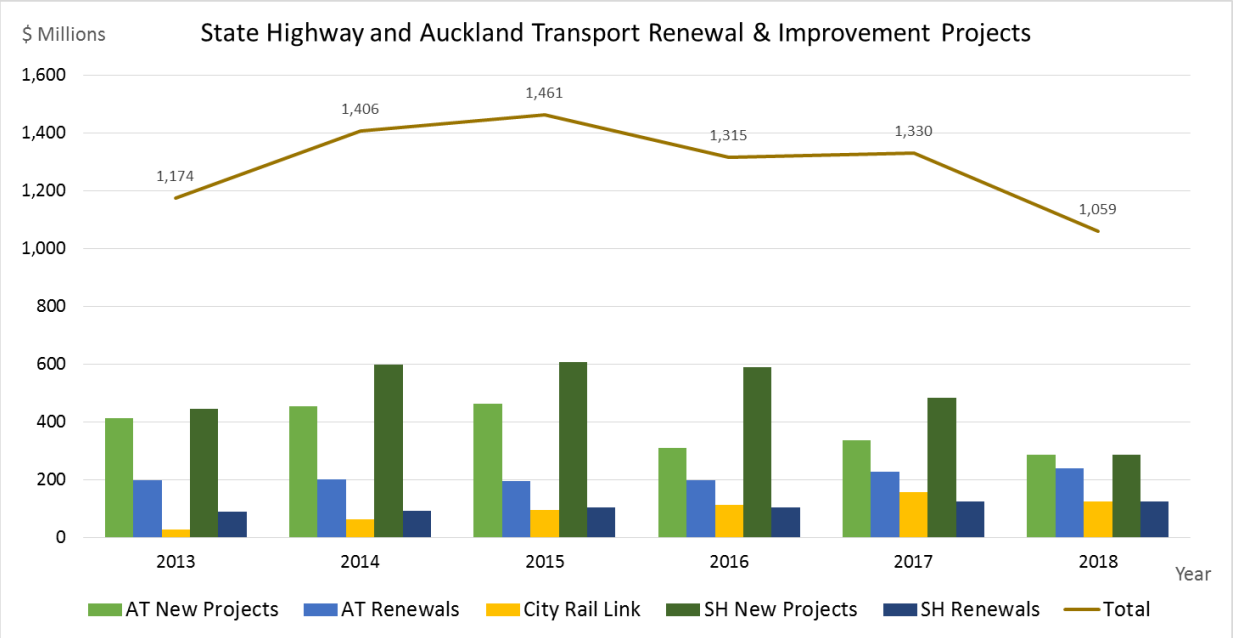


Figure 1 shows the Capital programme being carried out by the Transport Agency and Auckland Transport. Existing assets will be maintained to a good standard, despite a slightly smaller overall programme.

The City Rail Link will commence in the first three years of this plan and will be delivered in the early 2020s provided promised Government funding is forthcoming. This is an example of the sort of bold project needed to unlock Auckland's potential. Other projects likely to be needed sooner rather than later include light rail, as population challenges cannot be met by adding more buses to an already congested network of arterial roads.

The Transport Agency, KiwiRail and Auckland Transport are key to the success of Auckland and need to continue to innovate, become more efficient and work better with stakeholders and each other.

In Auckland Transport's view, Government and ratepayer funding cannot be the sole solution to an optimised network and excellent customer experience. Transport delivery agencies need creative, adaptive and innovative implementation. Alternative sources of funding and delivery need to be explored as part of delivering a sustainable funding model. Surplus assets need to be realised in order to release funding for higher priority investment.

1.1 Prioritisation to optimise the funding available

1.1.1 Prioritisation Methodology

There are always more transport projects needed than there is money to fund them, so a critical part of preparing the RLTP is prioritising all projects proposed by the Transport Agency's Highway and Network Operations division and Auckland Transport.

A prioritisation process was developed collaboratively by Auckland Transport and the Transport Agency to enable a fair assessment of the priority of projects. In total, around 1,000 projects were assessed.

The prioritisation process works like a sieve, grading each project according to strategic fit, effectiveness and efficiency, only the very best schemes pass through all the prioritisation sieving layers to be entered into the programme. Those projects not being proceeded with are not discarded. They are placed in a holding pen for subsequent consideration in light of changed circumstances.

The prioritisation process considers the merits of projects according to three criteria. Strategic fit, effectiveness and efficiency. These are discussed further in Section 4.5 – Prioritisation and Ranking.

The prioritised list is then used to develop a strategically aligned, optimised programme that is deliverable and represents value for money.

Non-discretionary activities are included in the programme without being prioritised:

- Contractual commitments such as the purchase of electric trains, or the completion of projects already under construction.
- Maintaining the existing level of public transport service (but note that significant changes to existing services are proposed in the public transport New Network)
- Maintenance and renewals of local roads and state highways
- Minor Safety projects, Local Board improvements and replacement of essential assets.

Non-discretionary projects are not exempt from scrutiny: preparation of this RLTP has included work to confirm that these non-discretionary activities are being delivered efficiently and effectively, and represent value for money.

There will be another round of prioritisation and ranking of projects for the next RLTP in 2018, consequently this plan considers the first 3 years of the programme in greatest detail.

The results of prioritisation can be found in Chapter 16 in the ranked list of projects.

2. Feedback from Consultation

Over 27,000 written submissions were received on the draft Long-Term Plan (LTP) and draft RLTP. Over 1,000 Aucklanders attended public meetings to share their views in person and 1,354 submissions were received through social media. In addition to the use of social media, Have Your Say and Community Engagement events were held, there was an on-line interactive forum, and public awareness events (such as the Transport Lanes outside Britomart).

A significant number of comments in submissions related to transport issues. The size of the transport programme and how it is funded were key issues highlighted in Auckland Council's consultation on the LTP, and this is reflected in the more than 91,000 comments coming through on transport issues.

Changes to the Land Transport Management Act (LTMA) mean that formal hearings on the RLTP are no longer required. However, the Regional Transport Committee (RTC) decided to hold a two day 'Transport Event' in March, at which 30 key stakeholders and Local Board Chairs presented. Iwi were invited to attend hui on 27 February and 12 March 2015.

The high level key themes coming through in consultation were;

- Aucklanders want public transport, but it has to be convenient, reliable and quicker.
- Aucklanders want to walk and cycle but it has to be safe.
- Aucklanders want better transport but have mixed views on how to raise the additional investment required.
- Aucklanders want current funding to be reallocated more favourably towards public transport, walking and cycling.

In response to consultation feedback, Auckland Council has agreed to establish a three year Interim Transport Levy – which provides the funding necessary for Auckland Transport to deliver the proposed transport programme. Auckland Council has also agreed to establish a Local Residential Growth Fund, and to provide a ring fenced budget (funded via development contributions) for arterial roads in the Drury South growth area.

The following table summarises how the Accelerated Transport Programme aligns with the key issues raised during public consultation.

Consultation Issue	How this has been taken into account in the final RLTP
Prioritisation • PT to be weighted higher • Prioritisation to be more spatially fair - too city centric • An increase in the Local Board's dedicated pool • Safety to be weighted higher • Affordability to be prioritised	Changes to the capital programme made possible by the Interim Transport Levy align strongly with feedback from public consultation. In particular, the five largest areas to receive additional funding in the programme's first three years are: • a $170 million increase in funding for public transport initiatives • a further $110 million for dedicated walking and cycling projects • $108 million for the new Local Residential Growth Fund • an additional $97 million towards renewals and replacements • an extra $61 million to be spent on safety initiatives. The Regional Transport Committee has reviewed the final programme and considers that it is spatially fair and not too city centric. Specifically in relation to rural and outlying areas, the Accelerated Transport Programme: • increases the three year budget for seal extensions from $3 million to $10 million • increases three year investment in renewals to ensure few assets fall into poor and very poor condition across the network • incorporates a dedicated Local Residential Growth Fund to allow for transport improvements associated with growth Funding continues for the Local Board Transport Capital Fund. The budget grows with inflation each year so that its value is maintained over time. The RLTP capital programme provides a mixture of significant regional initiatives (e.g. City Rail Link, East West Connections, AMETI), regional programmes (which are made up of a large number of smaller initiatives spread throughout the region – e.g. safety and bus lanes) and smaller initiatives with local or sub-regional benefits (e.g. Te Atatu bus interchange, Silverdale Park and Ride).
Growth Projects Submitters noted: • That infrastructure was lagging • That ratepayers are picking up developers' costs • That Government should pick up SHA infrastructure costs	The programme: • brings forward investment at Flat Bush to support development in this Special Housing Area • provides for growth at Long Bay and in the Northwest Transformation area Auckland Council has also agreed to establish new ring fenced funding for: • The Local Residential Growth Fund – which will provide $398 million over ten years ($108m across the first three years) for transport related projects and initiatives that enable growth and development in Auckland, and • Regional arterial improvements in the Drury growth area. These items are predominantly funded via Auckland Council development contributions.

Consultation Issue	How this has been taken into account in the final RLTP
Achieving Māori Outcomes Mana Whenua want to achieve: • A good relationship with Auckland Transport • Auckland Transport to recognise Te Ao Māori (the Māori world view) • A set of overarching principles for Te Ao Māori • The Mauri Model method (Māori values) reflected in prioritisation	Improved criteria relating to the achievement of Māori outcomes have been incorporated into the prioritisation system.

Public Transport
 	
Consultation feedback requested:
• More frequent, reliable, cheaper services
• More bus lanes
• Bus and rail interchanges
• More public transport routes – bus, train, ferry
• Safer rail level crossings
 	
Feedback on the City Rail Link was mixed – with some support and some opposition
 	
Significant support for light rail or tram investigation
	The programme:
	• brings forward the essential public transport interchanges required for the New Network. This will allow services to be restructured to reduce duplication, increase frequency and improve overall network efficiency
	• improves public transport reliability by:
	  ○ bringing forward investment in bus lanes
	  ○ eliminating the Newmarket Level Crossing (Sarawia Street)
	• provides for safer level crossings by:
	  ○ eliminating the Newmarket Level Crossing by 2017
	  ○ providing dedicated funding in all years for public transport safety and security improvements, which (amongst other things) will be used for rail safety improvements
	  ○ providing dedicated (but limited) funding from 2020 towards the removal and improvement of rail level crossings
	
	City Rail Link is included within the programme.
	
	Funding to continue investigating light rail is provided for within the operating costs outlined in this RLTP.

Park and Ride facilities • Strong support for more • Minority thought unnecessary if better bus feeder services available • Important on edge of built up areas	The programme provides Park and Ride: • extensions at Silverdale and Papakura • replacement facilities at Glen Eden and Hobsonville • a new facility at Westgate • a new facility at Pukekohe (constructed as part of the new Pukekohe Interchange)
Walking & Cycling Key messages included: • Footpaths – access to local facilities, connected and safe • New cycling infrastructure – connected, safer, off-road or separated • Cycle facilities at Park and Rides • Cycle and walkways – shorter journey options • Cycling and walking access across the Harbour Bridge • Additional funding – maximise UCF	The programme provides over $100 million for dedicated Auckland Transport walking and cycling initiatives over the 2015/16 to 2017/18 period. This will provide: • 52.4 kilometres of the Auckland Cycle Network • $5 million for new footpaths across the region • $3 million towards local walking and cycling initiatives • significantly improved walking and cycling access to public transport. The programme provides over $50 million for dedicated Transport Agency walking and cycling initiatives over the 2015/16 to 2017/18 period.

Consultation Issue	How this has been taken into account in the final RLTP
Roading Projects Submitters: • Supported their local major road improvement • Were concerned about predictions showing slowing average speeds • Were concerned about major projects being delayed	The first three years of the programme focuses on: • completing committed projects – e.g. Albany Highway • bringing forward initiatives that integrate and optimise State Highway and other recent investments – e.g. Te Atatu Corridor • investing in network efficiency and route optimisation improvements across the region – e.g. minor improvements and dynamic traffic lanes

2.1 Feedback from Local Boards

Some Local Boards reflected a view that Local Board aspirations, as shown on their Local Board Plans, were not adequately reflected in the project lists included with the RLTP. However, there are structural barriers which militate against a direct connection between Local Board Plans and the RLTP. First, Auckland Council's primary reporting relationship is to the Governing Body, through the Letter of Expectation and the Statement of Intent, and accordingly it is the Governing Body's priorities that are most strongly reflected in the RLTP. Second, the prioritisation tool used to analyse projects for inclusion in the RLTP does not give specific weight to local aspirations, but is primarily based on technical criteria, considering 'transport need' on a regional basis.

Notwithstanding, Local Board Plans are strongly supportive of many of the strategic initiatives that Auckland Transport is undertaking, including the extensive improvements being undertaken in both the rail and bus networks, and the emphasis being placed on walking and cycling. The main area of difference here is that local boards generally are seeking more to happen, and more quickly, than Auckland Transport is able to deliver. In addition, there are a number of locally-cherished roading initiatives which have not attracted sufficient priority under the prioritisation process.

The Local Board Transport Capital Fund (LBTCF) gives Local Boards the ability to fund minor works directly, in response to public concern or local aspirations. Some Local Boards have been slow to realise the potential of this fund, and may have difficulty spending their allocation during their current term in office. However, Local Boards that have actively sought to progress programmes funded by the LBTCF have been able to deliver many dozens of minor projects and infrastructure consistent with their Local Board Plans.

Auckland's Transport Policy in Detail

3. Context

3.1 The purpose of the RLTP

This RLTP sets out an investment programme for Auckland which maintains the momentum of transport improvements seen in the last four years, to the extent possible within current funding constraints.

All publicly funded land transport activities in Auckland are included in this RLTP, including:

- The road network, including State Highways
- Footpaths and cycleways, which are usually but not always beside roads
- Road safety activities delivered in partnership by Auckland Transport, the Transport Agency and the NZ Police
- Public Transport (bus, rail and ferry) services
- Improvements to bus stops, rail stations and ferry wharves, and the creation of transport interchanges and Park and Ride facilities
- Management and improvement of rail track infrastructure by KiwiRail
- Parking provision and enforcement activities
- Transport Planning

Information about these activities is provided in detail for the three years 2015/16 to 2017/18, and in outline for the seven years 2018/19 to 2024/25.

The NZ Transport Agency (the Transport Agency) manages the National Land Transport Fund (NLTF), and reinvests the revenue from fuel taxes, road user charges and vehicle registrations in transport activities that contribute to the priorities set out in the Government Policy Statement (GPS). Roughly a quarter of Auckland Transport's funding comes from the National Land Transport Fund (NLTF) via the Transport Agency. The Transport Agency also invests directly in the State Highway Network, traffic policing, and other transport activities.

Auckland Council is the owner of Auckland Transport and contributes over half of Auckland Transport's total funding. The remainder of Auckland Transport's funding comes from operating revenue (parking and enforcement revenue and public transport fares).

The RLTP provides the basis of a request for funding from the NLTF, which will be assessed by the Transport Agency using its Investment Assessment Framework. The Transport Agency's decisions on which transport projects to invest in will be documented in the Auckland section of the 2015–18 National Land Transport Programme (NLTP).

Central Government also invests directly in transport activities in Auckland. An example of this is the electrification project delivered by KiwiRail.

The Regional Transport Committee (RTC) will review this RLTP in 2018 and will consult again on a revised 10 year programme.

3.2 Transport Strategy in Auckland

Transport strategy in Auckland is potentially complex. The three delivery agencies each have their own priorities which, while consistent, create the potential for misalignment. At the highest level Auckland's plan drives the allocation of Council funding while the Government Policy Statement sets the investment platform for Government investment. A number of sub-strategies are in existence including Auckland's Parking Strategy and the Upper North Island Freight Strategy.

However, all funding decisions and delivery agencies are aligned around the need to address:

- Growth. There is a need to provide the infrastructure required to let Auckland grow by supporting new housing, jobs, student numbers and tourists.
- Congestion. Long-standing issues with traffic flows will only get worse as Auckland grows. Public transport is one dimension but investment to support freight movement and improvement in key road corridors is needed.
- Business as usual. A large stock of existing investment to support infrastructure needs to be maintained and safety and environmental factors kept to the fore.

These outcomes are all measured as part of this RLTP. The following section outlines the priorities contained in the suite of existing policy. It also lays out how a prioritisation matrix and Investment Logic Map have been used to inform the allocation of resources and choice of projects over the ten year life of the plan.

3.3 The Auckland Plan

The Auckland Plan outlines how Auckland will grow and change to accommodate an estimated one million more people over the next 30 years. It sets out a vision of Auckland as the world's most liveable city, and describes the outcomes needed to achieve this vision by 2040, highlighting six transformational shifts where a "step-change" is needed, as shown in Figure 2.

Figure 2: Auckland Plan vision, outcomes and transformational shifts

Two of the six transformational shifts, the move to outstanding public transport and radically improving the quality of urban living, relate most closely to transport and can be seen as enablers of the other transformations.

To deliver a well-connected and accessible Auckland, the Auckland Plan sets out four transport priorities:

- Manage Auckland's transport as a single system
- Integrate transport planning and investment with land use development
- Prioritise and optimise investment across transport modes
- Implement new transport funding mechanisms

This RLTP supports the Auckland Plan by setting out the transport investment programme and supporting strategies for delivering the Auckland Plan's strategic direction over the next 10 years. A key task for the RLTP is the prioritisation of transport expenditure - particularly where insufficient funding is available. Alignment with the Auckland Plan's strategic direction is a central part of how transport projects have been prioritised for inclusion in this RLTP, as discussed in Section 4.6.

3.4 Government Policy Statement on Land Transport (GPS)

The investment programme set out in this RLTP is designed to give effect to the transport components of the Auckland Plan, and is consistent with the GPS. The GPS sets out the Government's priorities, objectives and funding levels for land transport, establishes funding ranges for land transport activity classes, and identifies the results expected from this investment.

The GPS 2015 was issued by the Minister of Transport on 18 December 2014. It proposes to continue the three key priorities from GPS 2012:

- A strong and continuing focus on economic growth and productivity: the Government proposes to continue supporting improvements which are expected to bring benefits for national economic growth and productivity (1)
- Road safety: the GPS 2015 continues to support the delivery of the Safer Journeys vision of a safe road system increasingly free of death and serious injury
- Value-for-money: a land transport system that is effective in enabling the movement of people and freight in a timely manner, and efficient in delivering the right infrastructure and services to the right level, at the best cost.

The GPS proposes six national land transport objectives, requiring a land transport system that:

- addresses current and future demand for access to economic and social opportunities
- provides appropriate transport choices
- is resilient
- is a safe system, increasingly free of death and serious injury
- mitigates the effects of land transport on the environment
- delivers the right infrastructure and services to the right level at the best cost

The GPS recognises that an Auckland transport network that is working well is crucial to improving the contribution that the city can make to New Zealand's economic growth and productivity (1).

3.5 Auckland Transport Strategic themes

Auckland Transport has developed five strategic themes to drive the delivery of the transport components of the Auckland Plan. The themes are:

Prioritise rapid, high frequency public transport to achieve the Auckland Plan outcome of moving to outstanding public transport.

Transform and elevate customer focus and experience by delivering road, public transport, cycling and walking services which are user friendly, customer oriented, and meet the needs of the people of Auckland.

Build network optimisation and resilience to get better value out of our existing services and assets and be resilient against future shocks (e.g. oil price changes), changing travel patterns and demands and natural events (e.g. flooding).

Ensure a sustainable funding model to create certainty for maintaining and renewing our assets, improving service levels incrementally and adding additional capacity to the transport system to meet the needs of future growth.

Develop creative, adaptive, innovative implementation of Auckland Transport's services, programmes and new projects.

Figure 3: Auckland Transport's Strategic Themes to implement the Auckland Plan

Auckland Transport's strategic themes align with Auckland Plan transport outcomes as shown in Figure 4 below.

Figure 4: Auckland Transport's Strategic Themes and the Auckland Plan Strategic Directions

		Auckland Plan Strategic Directions				
		Increased access to a wider range of quality, affordable transport choices	Auckland transport system moves people and goods efficiently	Auckland's transport system enables growth in a way that supports communities and a high quality urban form	Reduce adverse effects from Auckland's transport system	Better use of transport investment
AT Strategic Themes	Prioritise rapid, high frequency public transport	Strong	Moderate	Moderate	Minor	Strong
	Transform & elevate customer focus and experience	Strong	Minor	Moderate	Strong	
	Build network optimisation & resilience	Moderate	Strong	Minor		Minor
	Ensure a sustainable funding model					Strong
	Implement accelerated, adaptive, innovative solutions	Strong	Moderate	Moderate	Strong	Moderate

4. Process Used to Develop this RLTP

The process by which this RLTP was developed was based on the Business Case Approach which identifies the key problems to be addressed, the benefits that are expected to be delivered, and the strategic responses that are required. The key outcomes of this process are set out in this section, and inform the prioritisation and timing of activities in this RLTP.

Figure 5: Summary of steps in the Business Case approach

4.1 Problem definition

According to the Organisation of Economic Cooperation and Development's Economic Survey of New Zealand in June 2015 (Organisation of Economic Cooperation and Development, 2015) Auckland is considered to be the second most congested city in Australasia, just behind Sydney. In surveys of Aucklanders, transport consistently rates as something that people are not happy about (2).

As Auckland's population and economy continue to grow, existing transport challenges will get worse unless changes are made. The capacity of Auckland's transport system needs to expand to support and enable this growth, which is essential to New Zealand's economic development.

It is important to agree the component parts of the problem and their relative importance, before designing solutions. With this in mind, Auckland Transport, Auckland Council and the Transport Agency identified four key problems that need to be addressed, as discussed below.

1. **Limited quality transport options and network inefficiencies undermine resilience, liveability and economic prosperity**

   Underdeveloped public transport, walking and cycling networks mean that Auckland continues to have high reliance on private vehicle travel and low levels of public transport use, walking and cycling. Private vehicles account for 78% of trips in urban Auckland (3).

   This high dependency on private vehicles means not only that there is long traffic delays but that many people have no choice other than to travel by car. Cars take up space when parked that could otherwise be used to address Auckland's housing shortage, their use reduces environmental outcomes and worsens health and safety. It also increases the risk to the economy from future oil price shocks.

   Some level of congestion is a by-product of a successful city. However, overly long travel times can reduce accessibility, subsequently impacting on

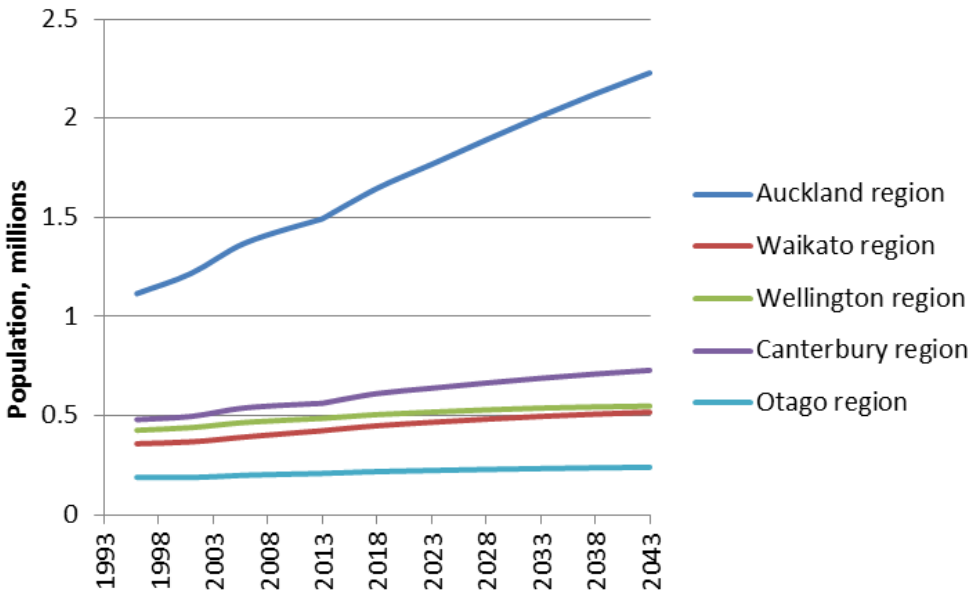
economic productivity and quality of life. Furthermore poor travel time reliability negatively impacts on the efficiency of business and time sensitive freight travel. Future projections suggest worsening congestion as Auckland grows, especially for trips to and from the Auckland city centre, which is New Zealand's largest and most productive employment area. Constraining the growth of the city centre undermines the performance of Auckland and New Zealand's economy.

Investments in the rail network and the Northern Busway are already making a difference, and Aucklanders have been taking up these new choices in numbers that exceed all forecasts. Annual surveys of travel to Auckland's city centre confirm that the growth in public transport travel is already making more capacity available on key links for freight and business trips (4).

2. The existing transport network won't adequately support growth in a way that achieves a quality compact city

Auckland is New Zealand's largest and fastest growing region and is predicted to grow by up to one million people by 2040, with 300,000 new jobs created in that time (5). Auckland is New Zealand's only international city, and does not compete with other NZ cities for investment and development; rather it competes with Melbourne, Sydney, Singapore, Vancouver and Portland. Increasingly, the competition for talent and investment is being won by cities that offer an attractive lifestyle, a safe and vibrant community and a quality environment.

Figure 6: Population growth 1996–2043, Auckland and Territorial Local Authorities



Source: Statistics NZ “medium” growth projections, 2013 base

Auckland's growing population and economy will result in a corresponding increase in the demand for travel, not only during peak commuter periods, but throughout the day. The existing transport system, which is already under pressure, will not be able to support Auckland's growth without significant changes.

In some of the newly designated Special Housing Areas, there is only very basic transport infrastructure. A completely new transport network will be required to support growth. Within the existing urban area, upgrades to roads, public transport, walking and cycling networks will be required to improve efficiency, make better use of existing transport assets and provide the additional capacity and enhanced connectivity that is required to encourage and support growth and intensification.

3. **The transport system creates adverse health, safety, cultural and environmental effects**

The social cost of road crashes in Auckland in 2013 was $847 million (6). Although there has been a declining trend in deaths and serious injuries on Auckland's road network over the past decade, the year 2013 saw an increase in road trauma, and in 2014, despite a slight improvement, Auckland did not meet its road safety targets. In international comparisons, New Zealand has a high road fatality rate on both a population and a per-km basis (7).

Transport accounts for around 20% of New Zealand's greenhouse gas (GHG) emissions, with the great majority of transport emissions coming from private vehicles (8). The Auckland Plan outlines a target of reducing GHG emissions by 40 % by 2040 (based on 1990 levels). While some recent improvements have been achieved, especially with the rollout of electric trains, a transformational reduction will be required for transport to "do its share" in achieving this target.

Transport construction, maintenance and operations can also have adverse effects on the natural and physical environment, including damage or destruction of flora and fauna, adverse amenity effects, and the emission of harmful pollutants and the contamination of stormwater runoff from the street network. Transport projects can also have adverse effects on sites and areas of significance to Māori. The transport network can also play a role in bringing Auckland's Māori identity to the forefront as a point of difference in the world.

4. **Meeting all transport expectations is increasingly unaffordable and will deliver poor value for money**

Providing new or expanded transport infrastructure to respond to growth is becoming increasingly expensive and inefficient. Land corridors designated in the past for transport purposes have now been used, and constructing transport infrastructure on land already used for housing or as open space is expensive and unpopular.

The Victoria Park Tunnel and the Waterview Tunnel are two examples of roading projects that have been constructed underground to minimise adverse environmental and community impacts, at significant additional cost.

The amount of funding available for transport investment and operations is constrained. Limited growth in traffic and fuel consumption in recent years has had an impact on the amount of funding available for transport investment from the National Land Transport Fund, and the potential future funding from this source will be constrained if this trend continues. Council funding for

transport is also constrained through signalled lower rates increases and controls on debt levels. Transport investment must compete with investment in water supply, wastewater and stormwater infrastructure which are also crucial to support Auckland's growth.

Once new infrastructure is built, it needs to be operated and maintained. Taking a "whole of life" approach, the costs of expanding and enhancing the transport network can be many times the initial capital investment. There is little benefit in investing in new assets if this means there is insufficient funding to operate, maintain and renew existing assets.

It is clear that expecting a high level of performance from the transport network for all modes in all locations at all times and for all types of trips is increasingly unaffordable and will not provide value for money. The level of performance can appropriately be expected to vary according to location, time of day, type of trip and mode of travel.

4.2 Benefits

In addressing these problems, Auckland Transport, Auckland Council and the Transport Agency have identified the following benefits:

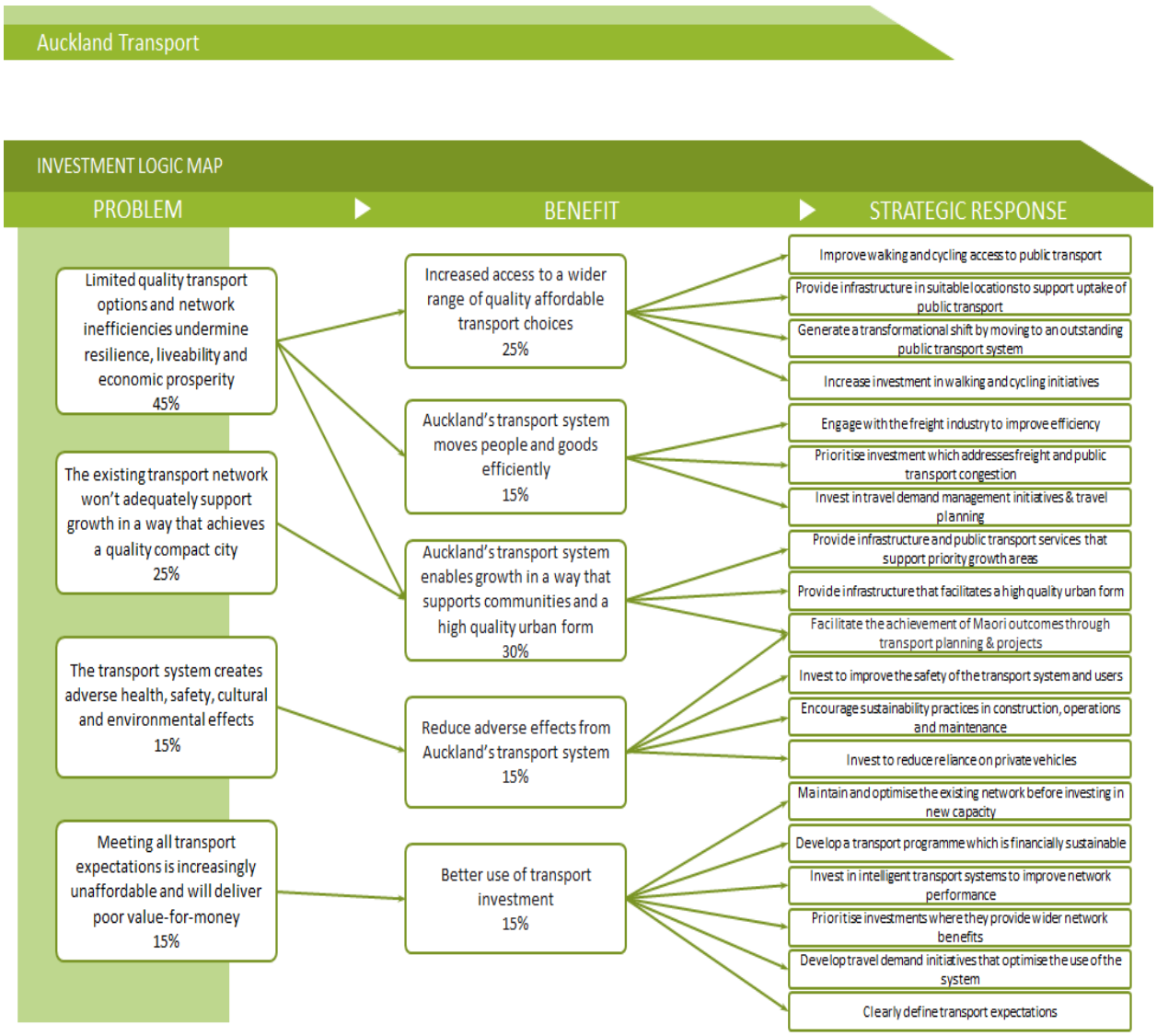
- Increased access to a wider range of quality affordable transport choices
- Auckland's transport system moves people and goods efficiently
- Better use of transport investment
- Auckland's transport system enables growth in a way that supports communities and a high quality urban form
- Reduce adverse effects from Auckland's transport system - including Safety, Environmental, Health and Cultural considerations.

Consistent with the business case approach, these have been aligned to a number of strategic responses.

4.3 Strategic responses

The strategic responses are statements of a strategic approach to deliver upon the problems and benefits identified that do not prescribe a particular solution. Strategic responses are used to provide guidance as to an approach to deliver in an integrated way that considers each mode of transport that is supplemented by a One System approach which treats the network as a whole or as a collection of places, linked by the different physical transport networks: the roads and motorways, freight routes, bus, rail and ferry networks, on and off-street parking, and off-road walkways and cycle-ways. Collectively, this process underpins the investment programme and is represented in the following investment logic map.

Figure 7: Investment Logic Map



4.4 One System Approach

It makes no sense to plan modes in isolation because people use them as one system. A single journey might start on a local road, use the motorway network, park in a rail station Park and Ride, catch the train to the city, and then walk to a final destination. The starting points for the One System are Auckland's current land use and the aspirations set in the Auckland Plan and Unitary Plan.

Figure 8: The One System approach

Looking at transport networks as layers of connections enables Auckland Transport to identify opportunities to improve travel choices, make better use of existing transport networks, align transport provision with changing patterns of land use and demand, and improve resilience to unexpected events and future changes.

The One System approach is also about Auckland Transport, the Transport Agency, KiwiRail and other transport providers working together to plan and manage the whole transport system, paying special attention to the old spatial and administrative boundaries where things might have fallen through the gaps in the past.

More detail on each of the layers of the One System approach is set out in the following chapters, along with details of how each component of the transport network can be improved to better contribute to the above outcomes.

4.5 Māori Outcomes

Māori outcomes in the RLTP are guided by the key directions and transformational shifts identified in the Auckland Plan; the aspirational outcome 'A Māori Identity is Auckland's point of difference in the world' and the transformational shift of significantly lifting Māori social and economic wellbeing. In meeting these outcomes, Auckland Council and the Independent Māori Statutory Board have identified post treaty settlement opportunities with mana whenua, marae development and papakainga development, Māori Urban Design (including te reo Māori), as priorities for Auckland Transport.

Of particular relevance for Auckland Transport and its relationship with Māori in the building of its infrastructure is Part 2 of the Resource Management Act 1991, which provides for the relationship of Māori with their ancestral lands, water, sites, waahi tapu, and other taonga, the expression of kaitiakitanga and the Treaty of Waitangi relationship. The Proposed Auckland Unitary Plan (PAUP) includes provisions relating to Māori cultural heritage and Māori values are also important considerations in decision-making.

Early engagement on the RLTP occurred in May 2014 with 14 iwi authorities represented, and 9 iwi authority representatives attended hui in February and March 2015 on the draft RLTP. One of the key themes emerging from the engagement was the need to reflect Māori outcomes and Te Ao Māori/Māori values in the prioritisation process for the RLTP, through an overarching set of principles. These apply in particular to the Environmental and Cultural aspects of the RLTP's prioritisation process.

Amendments to the prioritisation system have been made following engagement with Mana Whenua. This has involved incorporating better criteria to assess whether projects have adverse impacts on the achievement of Māori values. Due to timeframes, the criteria have not been used to rescore projects for the purpose of setting this RLTP. The criteria will however be utilised over the next three years to assess projects as they progress through their various stages. As it involves the identification of red flags, the criteria will be used as a form of 'checkpoint' rather than as scoring criteria for project prioritisation. Further work will be undertaken with Mana Whenua over the 2015-18 period to consider how the achievement of Māori values could be further embedded into the prioritisation system.

Section 22 of the Land Transport Management Act provides for the funding of Māori roadways. Auckland Transport is undertaking preparatory work to determine the extent of Māori roadways in the Tāmaki Makaurau region, and will work proactively with mana whenua on this issue over the 2015-18 period.

4.6 Prioritisation and ranking

To deliver upon the strategic responses, a prioritisation process has been led by Auckland Transport with input from Auckland Council and the Transport Agency to ensure the best value projects are the ones that are funded. The prioritisation process works like a sieve through which activities are reviewed and considered in increasing detail as they move down through the various "filters". This section outlines the prioritisation process and sequencing steps that have occurred to subsequent to the consultation process.

4.6.1. Process

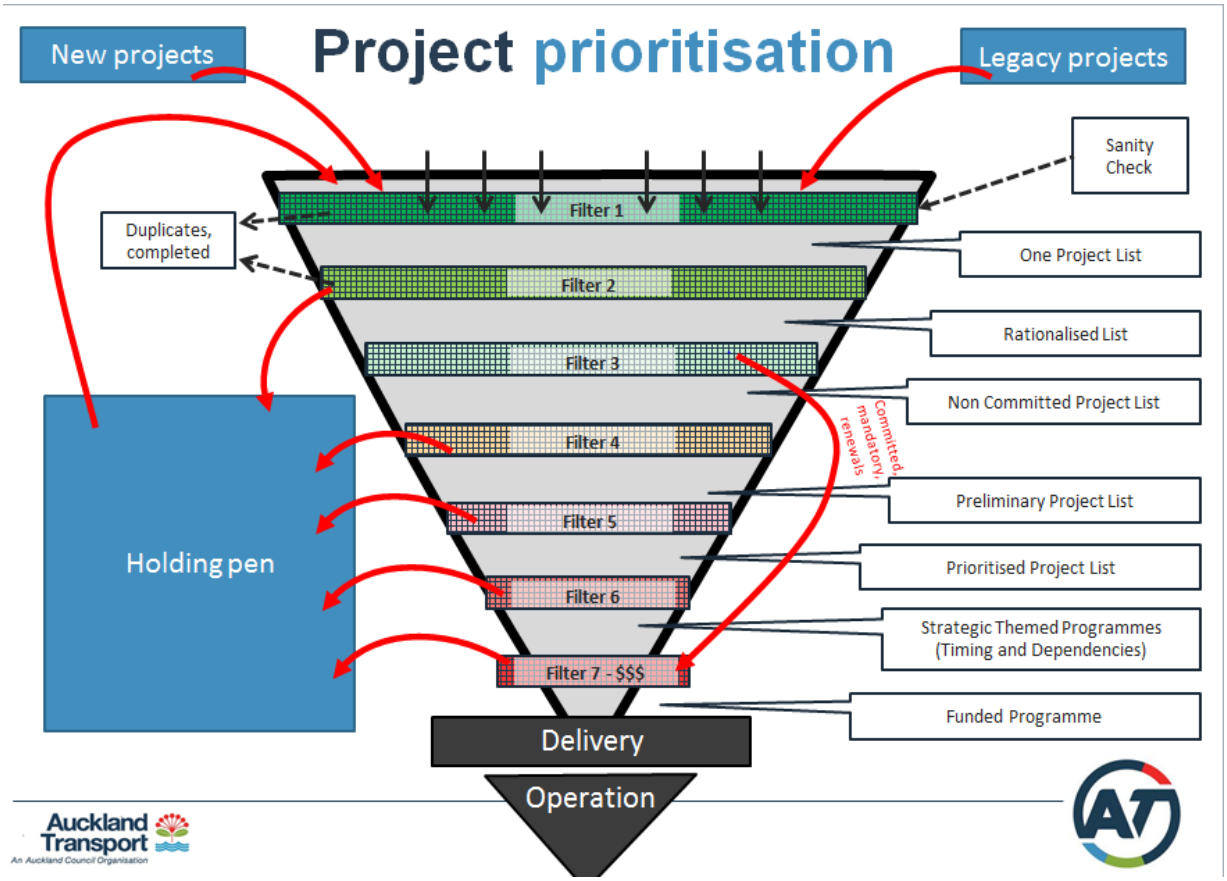
At the filter one stage all activities, including legacy and proposed were included. This was refined further by a process to ensure no activities were duplicated, and that the project still made sense during filter 2. As part of filter 3, the following non-discretionary activities are included. Non-discretionary projects included those that already had:

- Contractual commitments such as the purchase of electric trains, or the completion of projects already under construction
- Maintaining the existing level of public transport service (but note that significant changes to existing services are proposed in the public transport New Network)

- Maintenance and renewals of local roads and state highways
- Mandatory items including Local Board Initiatives and replacement of essential assets.

These activities are treated as essential, but were not exempt from scrutiny and work was undertaken to confirm that these non-discretionary activities were both efficient and effect and represented value for money. The process is represented diagrammatically below.

Figure 9: Auckland prioritisation process - overview



4.6.2 Detailed Project Ranking

At the filter 5 stage, projects were evaluated against defined assessment criteria with the three profile approach used by the Transport Agency for formal inclusion into the RLTP. The profile components are:

- Strategic Fit
- Effectiveness, and
- Efficiency.

Strategic Fit focuses on selecting the right investment priorities; effectiveness on the likeliness of success of the solution in achieving objectives; and efficiency on ensuring activities provide the greatest benefit for the least cost.

Components of Ranking

Strategic Fit	***Effectiveness***	***Efficiency***
Strategic Fit has been assessed in terms of the benefits and desired outcomes articulated below. A project is scored against 28 of the desired outcomes, which provides the information necessary to assess how strongly each project delivers against Auckland's strategic priorities. A project is scored from 1 – 5 for its contribution to each benefit which is then able to be combined to form an overall strategic fit score. The detailed criteria used to assess each project are outlined in Appendix 2.	A project is assessed as having high, medium or low effectiveness. The criteria for this assessment are based on the Transport Agency's criteria and are outlined in Appendix 2. Activities are most effective if they provide long-term, integrated and enduring solutions.	Efficiency is based on a project's benefit cost ratio (BCR). The output of the efficiency calculation is a benefit/cost ratio or BCR, which is converted to a profile as follows: >5 High 3.0-4.9 Medium 1.0-2.9 Low

Where projects are in a very early stage of development, calculated BCRs are indicative and their use is more for information than a core part of the ranking process. As a result, the Ranked Capital Projects outlined in Section 16.2 are ordered based on strategic fit and effectiveness; with BCR being used as a "checkpoint" - where all projects with a BCR of less than one require comprehensive analysis and justification as to their inclusion within the programme.

Where projects have the same Strategic Fit and Effectiveness scores, they are ordered from lowest to highest cost.

As part of the final ranking, Auckland Transport and the Transport Agency have ensured that profiles are agreed between the two organisations wherever possible. There should be relatively few differences, because a similar evaluation methodology is being used and because the strategic transport priorities of Auckland and of Central Government are closely aligned.

4.7 Timing and Sequencing

Following on from the draft RLTP consultation, a further filter was applied to ensure that, at any given level of funding, the projects with the highest level of benefits were included and that the timing and sequencing of projects was optimal in a context of funding shortage.

While generally higher priority projects would be expected to be implemented before lower priority projects, a number of critical dependencies between projects, as well as appropriately balancing investment between programmes and individual projects, require a clear transparent system to determine optimal timing and sequencing.

The following criteria are used to ensure the timing of projects is optimised:

Figure 10: Timing and Sequencing of projects

Priority 1	**PROJECT WITH COMMITMENT**	Evidence available which confirms project as a pre-existing commitment
Priority 2	**MINIMUM ANNUAL SPEND ON A KEY REGIONAL PROGRAMME (e.g. safety)**	Investment establishes a minimum annual spend on a programme of work which has as direct link to a key strategic priority (e.g. safety)
Priority 3	**CRITICAL DEPENDENCY – PT New Network**	Project identified as an essential requirement for a key aspect of the PT New Network
	CRITICAL DEPENDENCY – Special Housing Area	Project identified as an essential requirement for a Special Housing Area to develop
	CRITICAL DEPENDENCY – larger regional initiative	Project proven to be essential for unlocking the benefits of a larger initiative (e.g. Western Ring Route or CRL) included within the RLTP
Priority 4	**SIGNIFICANT IMPACT ON A KPI**	Evidence provided that the project/initiative has a significant, measurable impact on one of the following KPIs: - public transport boarding's - Asset Condition - Fatal/Serious injuries - Travel times along strategic freight routes (as defined in the Auckland Transport SOI)
	SIGNIFICANT RISK OF PROJECT COST ESCALATION	Deferring project incurs significant risk of cost escalation over $10m (excluding inflation) - e.g. the land required will almost certainly be developed in the interim OR delay will result in significant rework duplicating current activity. Note – only funding required to reduce the risk of cost escalation should be brought forward (e.g. route protection).

Priority 5	**SPECIAL FUNDING**	Project attracts additional targeted funding that amounts to at least 50% of total capital
	TRANSPORT AGENCY FUNDING CONFIRMED	Project has current approved NLTF funding (for design and/or construction)
Priority 6	**VERY HIGH ECONOMIC EFFICIENCY**	Project has very high economic benefits evidenced by a pre-existing BCR >=7.0
	REDUCES OPERATING COSTS	Capital investment in the project has been shown to reduce operating costs in the future (e.g. LED street lighting)
Priority 7	**OTHER REASON**	Reason to be clearly specified in accompanying notes.

The prioritised list is then used to develop a strategically aligned, optimised programme that is funded, deliverable and represents value for money. This forms the basis for Auckland Council and the Transport Agency to make funding decisions and for Auckland Transport to prepare its final programme.

4.8 Other significant influences

4.8.1 Environmental Sustainability and Transport in Auckland

Challenges

Land transport emissions make up just over 35% of Auckland's greenhouse emissions and have been relatively stable since 2006. Commuting by private vehicle accounts for 40% of an Auckland resident's daily greenhouse emissions. It is vital for Auckland's sustainability and health, that we reduce transport emissions. The most viable methods to do so are to increase walking, cycling and public transport use as this will reduce fossil fuel use.

The Auckland Plan targets a reduction of greenhouse emissions by 10 – 20% by 2020 and by 40% by 2040.

What we are doing

The Transport Agency's and Auckland Transport's main ability to respond to the adverse effects of transport on the environment is to promote alternative transport options that produce less pollution. Both the Transport Agency and Auckland Transport have plans to rapidly expand the cycling network in the next 3 years. The Transport Agency is allowing the construction of 'Skypath' on the Auckland Harbour Bridge and will be constructing 'Seapath' during this plan period. For the first time, pedestrians and cyclists will have direct access to the city centre from the North Shore.

Auckland Transport will also be expanding cycleways and walkways significantly, including the Glen Innes to Tamaki Drive cycleway which will provide segregated cycle access to the city centre from South-eastern suburbs. Eventually, this will join the cycling infrastructure included in the AMETI project to enable safe continuous walking and cycling lanes from Panmure all the way into the city centre.

Auckland Transport and the Transport Agency are investing in electric trains which are far more fuel efficient and less polluting than the diesel trains they are replacing. Replacing diesels with electric trains on the core network will save 15 million litres of fuel per year.

The public transport New Network will change bus routes in the next few years so that trips become on average, quicker, and more frequent, but will require more legs to a journey. Public transport patronage has increased significantly, doubling in the last 20 years and is expected to continue growing over the coming years. This will be achieved by introducing improvements like the New Network, integrated ticketing and fares.

These gains in public transport patronage have made a real difference to the amount of traffic on our region's roads at a time when population growth has been very high. For example, there were roughly similar numbers of vehicles crossing the Auckland Harbour Bridge in 2014 as there was in 2001 in the morning peak period, however there has been a 31% increase in population during this time. The major change in vehicles crossing the bridge is a reduction in the number of cars and a large increase in the number of buses. This impressive result was made possible by the introduction of the Northern Busway which gave North Shore residents a viable alternative to driving a car into the city. The projects proposed as part of the AMETI scheme will achieve a similar results for residents living on the Botany peninsula.

All vehicles create pollution, and Auckland Transport is working with the Council, the Transport Agency and Ministry of Transport on source control of contaminants. These contaminants include zinc and copper from tyres and brake linings as well as fuel. Once these contaminants reach the environment, Auckland Transport and the Transport Agency are improving their containment through the introduction of stormwater management devices such as Tetra Trap and balancing ponds which reduce the amount of contaminants entering watercourses and the ocean.

Auckland Transport is actively seeking a private enterprise partner to create a car sharing organisation, which will offer plug-in electric vehicles (PEVs). A membership-based, PEV-share scheme will deliver an incentive for households to shed ownership of a second car, or any vehicle at all. The initial fleet is envisaged to be 200-300 electric vehicles supported by around 350 mostly on-street, plug-in charging stations across the city. By providing infrastructure and eliminating the barrier of high purchase price, many more Aucklanders would get used to driving an electric vehicle, normalising their use. The scheme is expected to provide a kick-start to electric vehicles in New Zealand. A condition for any operator of the scheme in Auckland is that it be commercially viable and at no net cost to Auckland ratepayers.

Auckland Transport is also retrofitting 44,000 of its 100,000 street lights with new technology LED bulbs. LED bulbs use about 65% less power than the bulbs that they are replacing. When all 44,000 bulbs are replaced as part of a 5 year programme, Auckland Transport will save 9.9 GWh/year on a current energy bill of 54 GWh/year.

Looking Ahead

In the short term the Transport Agency, Auckland Council and Auckland Transport will be improving the environment by encouraging Aucklanders to travel less through:

- Reducing the need for travel via supporting good land use planning and offering travel planning programmes.
- Increasing the quality and use of public transport, walking and cycling facilities
- Improving transport efficiency to reduce the consumption of fuel
- Moving away from fossil fuels

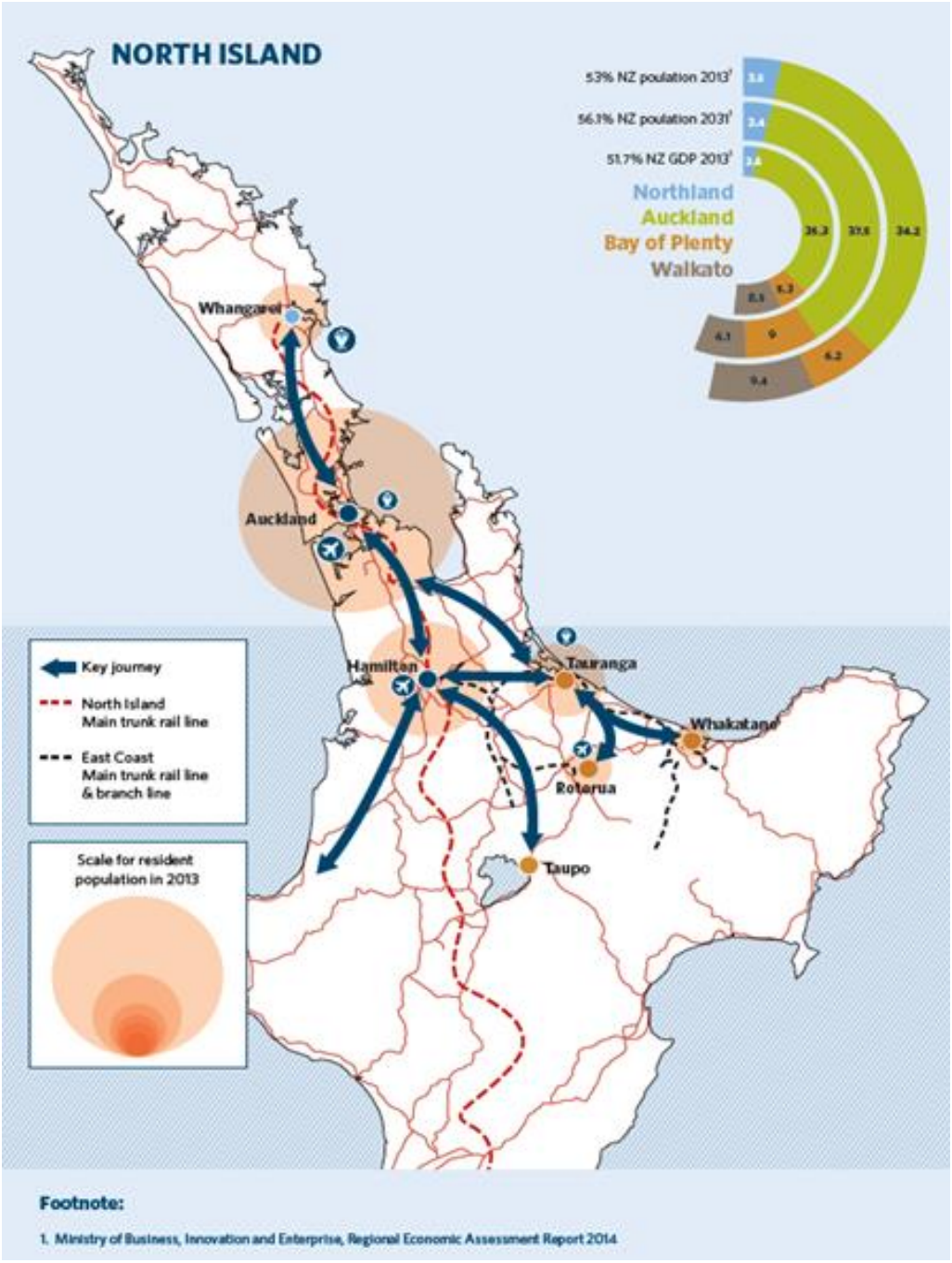
In the medium term, during the 2020's there will be:

- Increased adoption rates of hybrid, electric and fuel cell vehicles followed by widespread rollout of electric vehicles.
- Continued improvement to public and active transport infrastructure.
- Comprehensive freight consolidation centres established.

In the long term we envisage an Auckland where public transport, walking and cycling are the preferred means of travel and Auckland's transport fleet, both public and private vehicles, are powered by sustainable, low-carbon energy sources.

4.8.2 Inter-regional priorities

Figure 11: Upper North Island Key Journeys



Auckland does not exist in isolation but depends on and enables social and economic interactions between it and the neighbouring regions which require collaboration on a number of activities such as investment priorities, freight movement by road and rail and cross regional land use and development.

With planned growth around the Auckland Region's boundary, inter-regional collaboration is important to maintain and, where appropriate, improve the land transport system's effectiveness and efficiency at a regional and pan-regional level for both freight and people movement, Inter-regional integrated planning that

supports integrated land use and future transport investment is supported by all transport agencies.

The Upper North Island Freight Study (UNIFS)

Auckland Council, Auckland Transport, and the Northland, Auckland, Waikato and Bay of Plenty Regional Transport Committees have worked together to identify high level Upper North Island (UNI) Freight priorities and have agreed the following statement:

> *"The UNI of New Zealand is vital to New Zealand's social and economic success. The area is home to over half of New Zealand's population, employment and GDP and accounts for around 50% of the total freight volume and movement - and is forecast to keep growing. An efficient, effective and safe transport system will be needed to support this forecast increase in the movement of people and goods.*
>
> *There are opportunities to work together at an UNI scale to better plan and manage the impacts of future change of UNI significance and to communicate shared views with a united voice on these matters. This will help enable UNI performance by improving certainty for communities and investors, decision making and the quality of life for local communities.*
>
> *The current high level land transport investment priorities from central and local governments include measures to reduce urban congestion, reduce costs for business, manage population change, improve connectivity (intra and inter-regionally), improve efficiency and road safety outcomes.*
>
> *The UNI is currently benefiting from significant transport system investment to achieve these central and local government priorities. Examples of this include the investment in improving the UNI inter-regional corridors and on reducing congestion in the main urban centres, particularly Auckland. This investment will have benefits at a local, regional and national level as often transport system improvements deliver benefits to people beyond the location of a project or local government boundary. Going forward, an improved understanding of those UNI scale issues and responses to deliver desired transport and wider economic and social outcomes is necessary.*
>
> *At this stage, at an UNI scale, inter-regional road and rail strategic corridor network improvements are critical to enabling improved productivity outcomes through improving connectivity and the efficient and safe movement of people and goods. System improvements to how UNI urban centres function, particularly in Auckland, are also critical. A resilient transport network that maintains links between communities remains important.*
>
> *It is essential to continue to develop and commit to collaborative stakeholder approaches at an UNI level to enable issues and opportunities to be identified and solutions agreed to resolve multi-faceted problems. The collaborative*

work undertaken to date has delivered significant benefits and as it develops further can continue to enable a broader understanding of the UNI inter-relationships and priorities."

Freight Priorities

The responsibility for the provision of infrastructure for freight moved by road and rail lies with Auckland Transport, the Transport Agency and KiwiRail. Major inter-regional road links are provided by State Highway Network Operations while the local roads are provided by Auckland Transport. It is not possible to distinguish the impacts on the road network caused by inter-regional freight movements from local traffic as the biggest impacts occur in the first-mile or last-mile of the journey. Road freight priorities are therefore discussed in terms of their impacts on local roads in later sections of this document.

Investment in rail track infrastructure is the responsibility of KiwiRail while investment in rail stations and above track infrastructure is that of Auckland Transport with the latter also paying for the use of rail tracks. Rail transport is used to provide two services i.e. public transport and rail freight of which Auckland Transport is responsible for the former and KiwiRail for the latter. However, because there is more demand for the use of the rail track than available timeslots for freight and public transport uses, the two uses are not necessarily compatible. Managing the use of available capacity (including investment) is an on-going task involving all key rail stakeholders concerned.

Cross border land development

Current and future land use in areas that allow for cross regional development, such as Pokeno and Pukekohe, impacts on the investment needed to facilitate the expected changes in the demand for transport services. This requires close cooperation between the regional Councils and/or Local Authorities concerned to ensure the best outcomes are achieved for both regions. Auckland Transport is working closely with Auckland Council and Waikato District Council to ensure that cross border development priorities are aligned to ensure optimal transport investment.

The following activities included in this RLTP are considered to be of inter-regional significance:

<u>Transport Planning</u>

- Integrated Freight Transport Requirements
- Responding to Auckland Growth Areas - City Centre & Fringe, North Auckland, North West, South and Warkworth
- SH1 Wellsford to Warkworth

Improvement Projects

- East West Link
- Hobsonville Deviation
- Manukau Harbour Crossing
- Mill Road Corridor
- Northern Corridor Improvements
- PC 12 Drury South Transport Implementation
- Pukekohe Bus / Rail Upgrade & Customs St Intersection Improvement
- SH 1 Waitemata Harbour Crossing
- SH1 Puhoi to Warkworth and Warkworth to Wellsford RoNS
- SH20A to Airport
- SMART (Rail to Airport)
- Southern Corridor Improvements
- Western Ring Route - RoNS
- Auckland Train Control Centre
- Ports of Auckland Limited - Access Improvements
- Pukekohe Rail Electrification
- Third Rail Line Otahuhu / Wiri

Although outside the Auckland region, the continued development of the Waikato Expressway is also an important project that will have a significant impact on the economic performance of Auckland and the UNI.

4.9 Policies

4.9.1 Regional Transport Planning

This One System approach necessitates a new way of planning and managing Auckland's transport network. It requires much greater collaboration between agencies responsible for transport planning including Auckland Transport, Auckland Council, KiwiRail and the Transport Agency to better plan and integrate transport provision and land use in a more effective, efficient and affordable way. A detailed list of future transport planning activity is included in appendix… Broadly speaking, Auckland Transport is responsible for, amongst other planning activities, developing:

- This RLTP, the 30-year Integrated Transport Plan, the Regional Public Transport Plan and Auckland Transport's input into strategies and plans of Auckland Council, the Transport Agency, and other organisations
- Strategic plans for arterial roads, public transport, freight networks, cycling, walking and parking. These plans define the demands, priorities and future development for each mode/asset
- Integrated planning for major infrastructure projects, (described in Chapters 6 and 7) City Centre initiatives and growth-related projects (as discussed in Chapter 9).
- Asset management planning for the Auckland Transport road network of 7,278km (local and arterial roads) as well as the State highway network in Auckland of 303km

The three agencies of Auckland Transport, Auckland Council and the Transport Agency have agreed to work closely on a more co-ordinated and integrated response to future strategic transport planning and investment to respond to growth and demand. An example of this is the consolidation of previously separate regional land use and traffic modelling teams into the Joint Modelling Application Centre.

Using the business case approach, the intent is to ensure transport planning investment is problem driven and that benefits and outcomes are identified. In this way it is anticipated that there will be better value for money and that opportunities for making better use of existing capacity are explored before supply measures. Transport planning must also consider the impacts of potential interventions on all road users. Thus the process of transport planning is one of engagement and agreement, using a framework that provides consistency, clarity and informed decision making.

4.9.2 Arterial and Local Roads

Auckland Transport's objectives for roads focus on the arterial network. They are set out in the Arterial Roads Deficiency Analysis (9) and are summarised below:

- Support and implement the Auckland Plan and enhance important "Place" values
- Support and accommodate the use of roading capacity by freight, public transport, walking, cycling, and general traffic
- Improve road safety for all road users.
- The core policies to achieve these objectives are:
    - Improve transport choices, trusting that people will use the network more efficiently if they have a wider range of affordable transport options
    - Develop a network operating framework to support multi-modal transport and optimise the network
    - Actively manage the arterial network to improve the flows of people and freight, through signal optimisation, incident response and real-time monitoring
    - Maintain arterial roads to higher standards than the rest of the network, because of their essential network function
    - Remove kerbside parking from arterials where necessary to enable safe and efficient operation
    - Develop plans for priority arterial roads which guide investment and the allocation of scarce road space, balancing land use, transport and aspirations for how each unique corridor should develop over time
    - Focus Auckland Transport's road improvement projects on the arterial network, and progressively upgrade the arterial network to better cater for priority users. Priority users are public transport, freight, pedestrians, cyclists and general traffic, and the order of priority varies depending on the road.

4.9.3 Public Transport

Auckland Transport's policies and objectives for public transport are set out in the Regional Public Transport Plan (10) and are summarised below:

- Network structure: A permanent network of connected frequent services that supports Auckland's future growth
- Integrated service network: Simple integrated services that connect people with where they want to go
- Infrastructure: A high standard of public transport infrastructure that supports service provision and enhances customer experience
- Service quality: A convenient and reliable public transport system using modern vehicles
- Fares and ticketing: A fares and ticketing system that attracts and retains customers, while balancing user contributions against public funding
- Customer interface: Simple, visible, and intuitive customer information and service
- Assist the transport disadvantaged: Improved access for communities and groups whose needs are not met by the regular public transport system
- Procurement and exempt services: A procurement system that supports the efficient delivery of public transport services
- Funding and prioritisation: Effective and efficient allocation of public transport funding.

Policies to achieve the above objectives are set out in the Auckland Regional Public Transport Plan.

4.9.4 Walking, Cycling and Travel Demand Management

A city where more people walk and cycle more often is a better place to live in so many ways; people are healthier, neighbourhoods are safer and with fewer short car trips the whole transport network works better.

Auckland Transport's objectives for walking, cycling and travel demand management are to:

- Support and enable long term strategic land use outcomes
- Make walking and cycling safer
- Increase the proportion of trips made by walking, especially in the city centre, metropolitan centres and town centres and for short local trips especially trips to school
- Provide an integrated, connected cycle network linking key population centres, education centres and transportation facilities
- Unlock the suppressed demand for cycling
- Model a customer-centric approach by finding out the reasons behind peoples current transport choices, and what it would take to help them to make a change.

The core policies to achieve this are to:

- Maintain footpaths in a safe condition, with higher standards in places where people walk most
- Support schools to develop and implement Safe School Travel Plans

- Complete 70% of the Auckland Cycle Network (Metros and Connectors) by 2030
- Ensure cycle facilities are safe enough to attract new riders of all ages and abilities
- Ensure all transport projects consider cyclists and pedestrians as priority road users
- Support Local Boards to develop local transport projects which meet community needs
- Support Auckland businesses, business areas and tertiary institutes to encourage travel by walking, cycling and public transport through the Commute programme.

4.9.5 Safety

Auckland Transport, the Transport Agency, the Police and community groups work together through RoadSafe Auckland to implement the Safer Journeys vision of a safe road system increasingly free from deaths and serious injuries.

The objectives of RoadSafe Auckland are (11):

- Reduce deaths and serious injuries on Auckland roads from 506 in 2010 to fewer than 410 in 2020, a reduction of almost 20% over ten years (target to be revised in 2015)
- Reduce crash-risk exposure across the transport network and in particular at high-risk roads and intersections, and for high-risk road users and communities
- Provide safer walking and cycling environments that encourage more people to choose active transport
- Maximise the road safety benefits of new legislation on alcohol and driving
- Prioritise parts of the network where better speed management will contribute most to reducing deaths and serious injuries, while supporting overall economic productivity.
- Prepare for the increasing challenges of public transport safety.

RoadSafe Auckland's policies for road safety are:

- Work together to deliver road environments, speeds, vehicles and road users that reduce the risk of death or serious injury when crashes occur
- Develop Road Safety Action Plans which target interventions to high risk roads and road users. These vary in different road environments and include:
    - High-risk Intersections, Urban Arterials and Rural State Highways
    - Vulnerable Road Users: Pedestrians, Cyclists, Motorcyclists
    - Alcohol: Capitalising on the introduction of new legislation in December 2014 to lower the tolerance limit for alcohol impaired driving
    - Speed Management: through Regulation, Enforcement, Education & Engineering
    - At-risk communities: Urban South, Urban Central, Rural North, Māori & Pasifika
    - Public Transport Safety Preparation including Rail Level Crossings.

4.9.6 Parking and Enforcement

The Parking Strategy was adopted by the Auckland Transport Board in March 2015 after an extensive consultation process that began in June 2014. Over 5,500 submissions were received on the draft Parking Discussion Document (12) which was considered in the development of the final adopted Parking Strategy.

The strategy provides the guiding principles and policies for the management and supply of on-street and Auckland Transport-controlled off-street parking in Auckland, including Park and Ride facilities. The strategy enables the application of a consistent approach across the city, and contributes to the achievement of Auckland Transport's and Auckland Plan outcomes. The objectives for the management and supply of parking in Auckland are:

- Facilitate a transformational shift to public transport.
- Prioritise the safe and efficient movement of people, services and goods on the road network.
- Provide an outstanding customer experience at Auckland Transport operated on and off-street facilities.
- Support the economic development of Auckland's city centre, metropolitan and town centres.
- Support place-making, amenity and good urban design outcomes.
- Ensure a fiscally responsible approach to providing, managing and pricing parking facilities and that benefits cover costs.

The adopted Parking Strategy sets out 13 policies for parking. The policies provide the overarching framework to guide customised responses to parking supply and management that will reflect local characteristics. The policies cover:

- The management of on-street and off-street parking
- Parking on residential streets including a continuum of parking management interventions.
- Parking on arterial roads including consideration for town centres.
- Parking permits and coupons including technology improvements.
- Comprehensive Parking Management Plans that set out criteria for consideration.
- Parking policies for non-centre locations including the application of travel demand management plans.
- Motorcycle, electric vehicle and car share parking policies
- Event management
- Technology for parking management
- Park and Ride provision and pricing.

Details of the policies are available in Auckland Transport's Parking Strategy (13).

Details of Projects and Budgets

5. Overview

5.1 Transport funding

Transport programmes are funded from a mix of:

- Transport Agency funding from the National Land Transport Fund (NLTF) which is administered on behalf of the Ministry of Transport by the Transport Agency. NLTF is predominantly sourced from fuel excise duties, road user charges, registration and licensing fees. The Government has committed to increasing fuel excise duties in the short term, to enable the fund to increase in size to pay for the improvements to the national transport network that are needed. Transport Agency funding contributes to investment in local road, public transport and other transport activities delivered by Auckland Transport, as well as fully funding activities delivered by the Transport Agency.
- Auckland Council revenue, which is from rates and debt. Rates generally fund on-going activities, such as bus services, while debt funds new infrastructure, such as railway stations, (details of funding sources for Auckland Council are set out in the Long Term Plan).
- Auckland Transport revenue including fares on many (but not all) public transport services, advertising, and income from land held for future transport needs, parking revenue and enforcement. There are limits to the extent to which revenue from these sources can be increased while maintaining the focus on providing better transport choices for Aucklanders.

5.2 Transport investment programme

The transport investment programme set out in this RLTP is constrained by the funding allocations.

The Transport Agency's programme of improvements is well funded and will deliver a series of improvements that will add capacity to the state highway network. In addition, the Transport Agency will deliver several important links to the regions cycleways in the next 3 year period. The Transport Agency will also continue to work with Auckland Transport to provide an extension to the Northern busway and help plan the Northwestern busway.

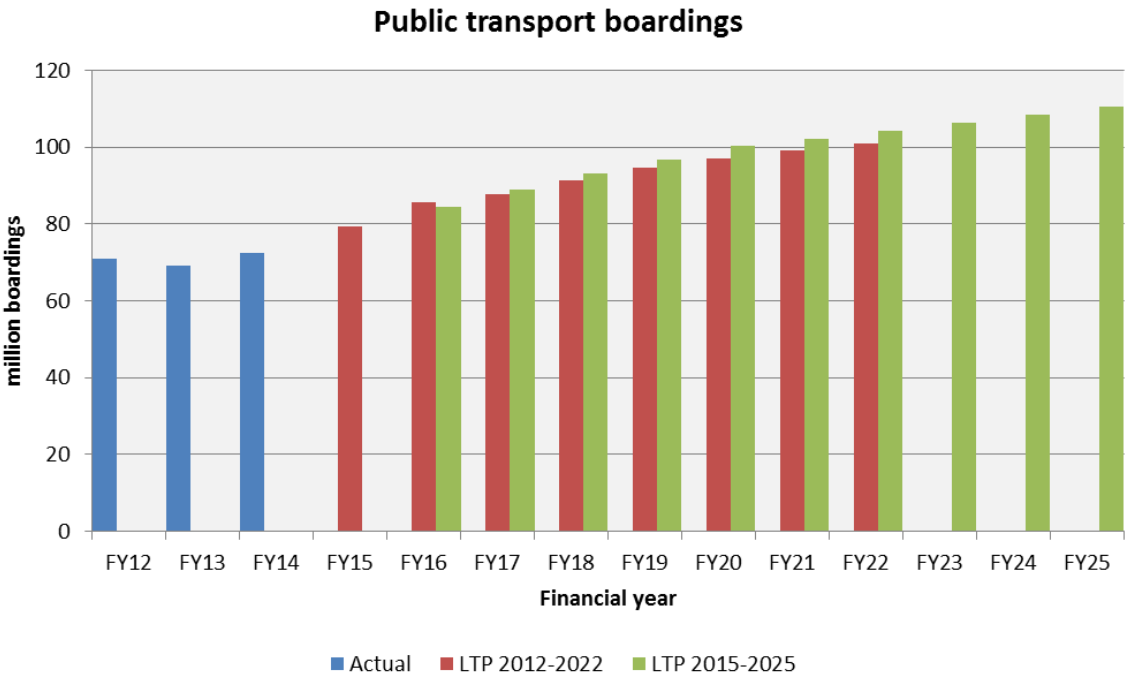
The amount of funding for Auckland Transport's services and improvements is significantly more than was proposed in the draft RLTP and Long Term Plan.

5.3 Outcomes

By 2015 there will be over 110 million trips taking place in the region. To support and encourage this growth in patronage there will an increase in the number of park 'n rides and new infrastructure such as interchanges, train stations and new bus shelters.

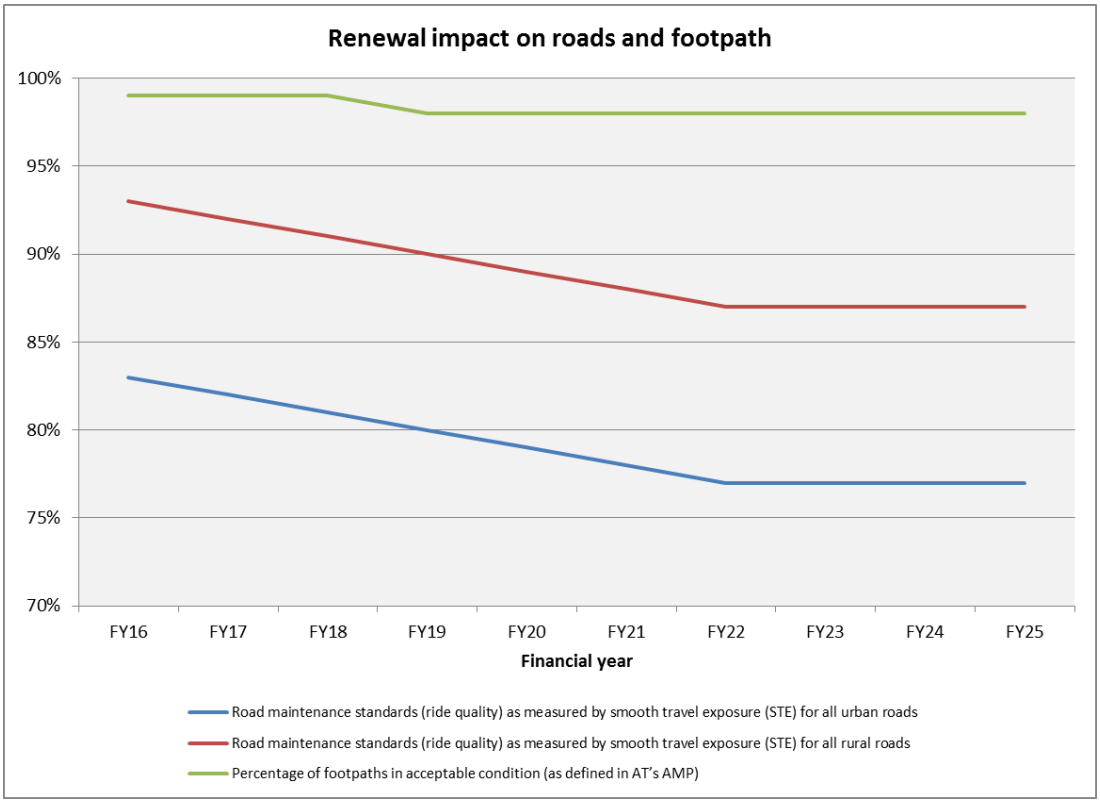
These changes will impact on previously projected public transport boardings as illustrated in Figure 12.

Figure 12: Annual Public Transport Boardings



Note: Does not include the significant public transport increase that will be generated by the opening of the CRL

Figure 13: Impact of renewals programme on roads and footpaths



6. State Highways

Key outcomes	• Completion of the Western Ring Route and Waterview Connection by 2017. • Progression of Auckland Accelerated State Highway Programme • Early work on East West Connections.

The Transport Agency is responsible for the maintenance, operation and improvement of Auckland's 352km of State Highway network (both motorways and rural state highways). The State Highway network is a key facilitator of journeys. It enables people and freight to make national and regional road journeys effectively, efficiently and safely which, in turn, helps support a thriving New Zealand and growing Auckland. At the national level, State Highways support New Zealand's global competitiveness, connecting cities, producers and markets, and air and sea ports. At a regional level, they connect businesses, communities, families and friends with customers, services, work, play and each other.

Auckland's motorways and rural State Highways (14) make up less than 1% of the road network by length, but carry over a third of the traffic (35% of vehicle km travelled) in Auckland. Motorways and State Highways function best when they are mostly used for long trips and are especially important for freight.

Similarly to Auckland Transport, the Transport Agency ranks its projects according to a national prioritisation process, which generally produces a similar ranking to the regional prioritisation process building on the one network approach with Auckland Transport. In its regional function role, the State Highway network in Auckland plays a key role in connecting the Upper North Island particularly between Northland and south towards the Waikato and Bay of Plenty regions. This is reflected in the programme which supports a nationally strategic freight function as well as an important local function.

The programme also adds much needed capacity to the roading network whilst continuing to develop smarter journey choices for customers. In addition, a number of cycleway projects are proposed along the Transport Agency network which supports the future growth of the Auckland Cycling Network by adding key regional links - these are listed in the Walking and Cycling chapter. Further details of the State Highway Programme can be found in the State Highway Activity Management Plan.

6.1 State Highway Programme

As well as general improvements and enhancements to the State Highway network, a series of major packages of work are at the heart of the State Highway Programme:

6.1.1 Roads of National Significance

Over the period of 2015–18, work will continue on the Roads of National Significance programme with the aim of delivering the programme in the Auckland region this includes progressing planning and delivery of the Waterview Connection and Northwestern Motorway and Puhoi to Wellsford projects.

The Waterview Connection and Northwestern Motorway Improvements will allow an alternative north south route providing route security to the state highway network at its busiest point. The Waterview Connection project is one of biggest infrastructure developments ever to be undertaken in New Zealand. It will complete the motorway ring route around the city by tunnelling for 2.4km at Waterview to join the existing State Highways at Maioro Street (SH20) and Great North Road (SH16) interchanges. Public Transport will also be improved through the provision of bus shoulder lanes between Great North Road interchange and Westgate. The package comprises a number of projects along SH20 including additional capacity between St. Lukes Interchange and Westgate via SH16 Causeway, improvements at St Lukes, Te Atatu, Lincoln and Royal Road interchanges and extension of the North Western Cycleway to Westgate.

Pūhoi to Wellsford project will extend the SH1 motorway from its current end point at the Johnstone's Hill tunnels. Building a safer, more reliable state highway connection for motorists, freight and tourism will better connect Northland to Auckland and the Upper North Island. Improving this connection will boost economic growth and support expected population growth in the area.

6.1.2 Auckland Accelerated Programme

In June 2013 the Government announced an accelerated package of transport infrastructure improvements for Auckland (15). The Transport Agency decided to accelerate the improvements to the state highway network where congestion and bottlenecks were greatest.

In addition, the forecast increases in freight demand around New Zealand, particularly in Auckland, combined with a growing population, have necessitated the acceleration of these projects. The following state highway packages were included in the speech, as shown below:

- Northern Corridor (SH18/1 Constellation Road to Albany).
- Southern Corridor (SH20/1 to Papakura).
- SH20A to Airport Improvements
- East West Connections

The outcomes sought from these projects is to support the role of the State Highway network as a facilitator of travel - particularly with regards freight - within the Auckland region and between regions as part of the Upper North Island. These projects also support travel choices – cycling and public transport – as part of a more efficient transport system.

The works to the Northern and Southern corridors provide additional capacity at key points in the network which will support growth and economic productivity.

The SH20 to the airport works will improve safety and journey time reliability by segregating a busy junction on this key route to the airport and a major freight centre.

The East West Connections project is about improving connections into and out of Onehunga-Penrose and public transport between Māngere, Ōtāhuhu and Sylvia Park as part of Auckland's manufacturing and distribution hub. This area is currently known for unreliable journey times and the proposed improvements will enable businesses to reduce their transport costs and move their goods more efficiently.

Figure 14: Auckland's Accelerated State Highway Programme

The Northern Corridor Improvements cover the area of State Highway 18 between Albany Highway and Constellation Interchange, and State Highway 1 between Upper Harbour Highway and Greville Rd. Projects consist of widening SH1 between The Upper Harbour Highway to Greville Road intersections together with junction improvements at both intersections which currently experience high levels of congestion. This is expected to be further exacerbated with the completion of the Western Ring Route, and future land use growth in the town centres of Albany, Massey North, Westgate and Hobsonville. The route also forms the Northern most

part of the Western Ring Route and supports interregional travel between Northland, Auckland and the Greater Upper North Island Region.

For the SH18 section between Albany Highway and Constellation Drive, the current expressway will be upgraded to motorway standard and crossing points for walking and cycling will be improved and enhanced. Currently the route experiences an inherent conflict between "through-traffic" and "local access" traffic in the area, increased by the growth in the North Harbour Industrial Area located adjacent to SH18. This has created community severance with the residential areas to the immediate south and east of the corridor. The walking and cycling network is not adequately developed in this area, further reducing accessibility.

Although unfunded at present the Transport Agency has plans for a busway component of the Northern Corridor Improvements. The separated portion of the Northern Busway from SH1 currently ends at Constellation Station. As a result of the congestion along SH1 between Upper Harbour Highway and Greville Rd, along with congestion on Constellation Drive and a lack of sufficient bus priority measures, northbound and southbound buses currently suffer from a lack of journey time reliability on the journey between Constellation Station and Albany Station. The planned busway extension will extend the existing successful busway further north on SH1, to Albany. A business case for the busway extension will be submitted for approval in 2015.

The Southern Corridor Improvements covers the stretch of Southern Motorway (SH1) from the SH20/SH1 connection at Manukau down to Papakura in the south. Additional lanes will be created in both directions and the Takanini Interchange will be redesigned to improve safety and access onto the motorway for this important industrial hub. This will support both local traffic to and around South Auckland as well as interregional travel between Auckland and the Waikato Region.

Auckland Transport and the Transport Agency have been jointly progressing an integrated transport scheme for SH20A which aims to improve accessibility to the airport and the surrounding airport business district. The works forms part of the multi modal strategy to help future proof for Airport growth of 14 million to 40 million passengers over the next 30 years.

The scheme includes upgrading the existing SH20A to motorway standard by constructing a trench to separate motorway and local traffic at the SH20A/Kirkbride Road intersection. It will future proof a rail connection (either light rail or commuter rail) and also coordinate the works with the Watercare Hunua 4 project in 2015.

The decision to future proof for either light rail or commuter rail is to retain flexibility in future to implement either mode should technological advancements in light rail enable potential significant cost savings, without compromising significantly on the overall travel time between the airport and the city centre. While these are being investigated it makes sense that the design of the new Kirkbride Interchange does not preclude either option.

The first step - upgrade of SH20A - at a cost of $157 million with future proofing estimated at an additional $30 million. Construction began in early 2015 and is scheduled for completion in 2017, and will provide a number of benefits once completed. It enables better journey reliability for traffic (and buses) to and from the airport in addition to improved safety for all users through the separation of motorway traffic and local traffic at the Kirkbride intersection. The upgrade will also support the benefits of the Western Ring Route by taking people to and from the Airport through SH20A, SH20 and the Waterview connection due to be completed in early 2017.

The multi-modal upgrades to this corridor (including the new Kirkbride Road interchange) will support future population and business growth in the area, cater for increasing numbers of travellers, and improve freight efficiency in South Auckland. Other benefits are environmental through improvements to stormwater drainage and treatment, and the reconnection of the community, along with other travel mode choices of walking and cycling.

Auckland Transport's focus now is about ensuring the rail mode is protected irrespective of the final choice of rail type and funding yet to be determined.

East West Connections is a joint NZ Transport Agency and Auckland Transport programme to improve freight efficiency, commuter travel, public transport and walking and cycling options over the next 30 years. This area is the engine room of New Zealand’s industrial and manufacturing economy and home to a number of our most vibrant communities. Increasing freight volumes and the anticipated economic and population growth in the area will place increasing pressure on both the nation’s supply chains and the local transport network. To ensure that the transport network can continue to support this growing movement of people and goods, the programme will identify the current and future issues on the transport network and look at how these can be addressed.

This area is the main industrial, transport and distribution hub of Auckland and of the Upper North Island. Here, "inland ports" served by rail links from the ports of Tauranga and Auckland enable national and international freight to be trucked to its final destination. Most major freight and logistics businesses in Auckland have depots here, and the area is also a major manufacturing hub and the location for almost 40 per cent of Auckland's manufacturing jobs.

The Inland Port developments in particular make a real contribution to reducing congestion and road maintenance costs. MetroPort, an enterprise of Port of Tauranga handles around 200,000 container movements per year, and much of the bulk movement of freight to and from the Port of Auckland is also done by rail, reducing the need for heavy trucks to travel all the way to the city centre. However the road network in this area was not designed with this level of freight traffic in mind, and some changes are essential.

Part of the attraction of this area is the convergence of road and rail links, including SH 20 in the west and SH1 in the east. However the approaches to both motorways,

and the Church St/Nielson St link, are congested through much of the day and links to SH1 are indirect and inefficient. Travel times in this area also tend to be unreliable, with the worst 15% of travel times taking almost twice as long as a normal trip on the same run. This directly impacts on the profitability of businesses for which time is money.

Planning for improved East West Connections has been accelerated, with the active involvement of businesses and the local community. So far, the option of a motorway connection from SH20 to SH1 south of the Manukau Harbour has been ruled out, and options for improved links between Onehunga and Sylvia Park are being worked through in more detail. Auckland Transport and the Transport Agency are managing this project jointly in order to achieve the best possible integration between the local road and state highway networks.

The table below shows the outcomes that investment will bring

Outcomes from investment	• Programme which supports the role of the state highway network as a facilitator of travel within the Auckland region and between regions as part of the Upper North Island. • Continued construction of Western Ring Route schemes with Waterview Connection scheduled for completion in 2017. • Progression of Auckland Accelerated Programme to facilitate increase in freight demand and population growth within the Auckland Region. • Supporting travel choices through the provision of bus shoulders, walking and cycleways along state highway corridors. • Addition of much needed capacity across state highway network to improve journey time reliability for customers. • Coordinated investment to support Auckland Transport’s programme including funding to support investigation, design and early work on East West Connections.

6.2 State Highway costs

Like Auckland Transport's investment in local roads, the Transport Agency's investment in State Highways has three components: Maintenance and Operations; Renewals, and Infrastructure Improvements.

6.2.1 State Highway Maintenance and Operations Renewals

State Highways Maintenance and Operations – Transport Agency	2015/16 $m, inflated	2016/17	2017/18	2018/19 to 2020/21	2021/22 to 2024/25 (indicative)
State Highway operations and maintenance	73.3	85.1	81.9	243.0	324.0

6.2.2 State Highway Renewals

State Highways Renewals – Transport Agency	2015/16 $m, inflated	2016/17	2017/18	2018/19 to 2020/21	2021/22 to 2024/25 (indicative)
State Highway Renewals	31.7	40.1	40.8	126.0	168.0

6.2.3 State Highway Improvements

State Highways Improved infrastructure for State Highways – NZTA	2015/16 $m, inflated	2016/17	2017/18	2018/19 to 2020/21	2021/22 to 2024/25 (indicative)
SH20A to Airport improvements	70.5	46.5			
Brigham Creek-Railway Rd Median Barrier		0.1	4.0	2.8	
SH1 Northern Corridor Improvements - Motorway	25.5	91.0	94.0	235.8	
East West Connections	6.9	29.2	10.8		
SH1 Northern Corridor Improvements - Busway Component					
SH1 Northbound auxiliary lane	8.3	1.4			
Southern Corridor Improvements	53.2	82.0	76.0	46.6	
SH16/SH18 Intersection					
SH20 / SH16 Western Ring route	364.0	204.7	72.9		
Hobsonville Deviation	3.3				
SH16/Muriwai Rd Intersection			2.4	5.0	
Silverdale Interchange Upgrade				2.5	
SH1 Puhoi to Warkworth New Road	27.8	2.3	2.3	6.7	
SH1 Warkworth to Wellsford	15.0	7.0	9.0	20.0	
Ngakoroa Realignment (Passing)			0.2	7.7	
McKinney/Wech Dr Intersection					
Warkworth Stage 1	1.8				
Wharehine Road	0.2	1.5	2.8		
Noise Improvements Programme	0.5	8.5			

State Highways	2015/16	2016/17	2017/18	2018/19 to 2020/21	2021/22 to 2024/25
SH1 Waitemata harbour crossing (Planning, route protection)	7.0	8.9	11.0	84.9	
Minor SH Improvements including: Safety, optimisation and resilience	6.1	1.2	1.3		
Auckland expenditure within nationally prioritised budgets including Safe Roads and Roadsides, advanced traffic management systems and small improvement projects are outlined as part of Chapter 13 – Transport Planning	Not Included	Not included	Not included	Not included	Not included
Auckland State Highway Improvements (excludes nationally allocated programmes	**590.1**	**484.3**	**286.7**	**412.0**	

7. Arterial and Local Roads

Key outcomes	• Continuation of the AMETI project, including replacing the Panmure roundabout with signals and starting the Panmure-Pakuranga busway. • Starting the local roading, walking and cycling and public transport elements of the East West Connections • Major arterial improvements to support growth and address urban congestion and safety concerns (eg Te Atatu Corridor, Mill Road).

Auckland's arterial and local road network is one of the highest value public assets in New Zealand, with a total value of close to $12 billion. Auckland Transport is responsible for:

- 7,302 km of local and arterial roads
- 1,020 bridges and major culverts
- 624 traffic signal-controlled intersections
- 105,347 street lights
- 3,735 sea walls and retaining walls

Private vehicle traffic is only one of many demands on Auckland's roads, which must also cater for public transport, walking, cycling and freight. And roads are not only for movement; the road is part of the experience of living, working or shopping in a place, not just a way to get to somewhere else. Almost the entire infrastructure that supports the city, including water, wastewater, stormwater and telecommunications, is located in the road corridor.

In this document, Public Transport, Road Safety, and Walking and Cycling, are covered in separate chapters, though there are many overlaps between these and the Roads work programme.

7.1 The Road Network

Local and collector roads make up 83% of the road network in terms of length, but most of these roads serve their network function well, making them a lower priority for upgrades and traffic management than the arterials.

Auckland's primary and secondary arterial roads make up 16% of Auckland's road network by length. The arterial network has been well maintained but not sufficiently developed and managed to meet growing travel demands. Although not as busy as Auckland's motorways, arterials carry much more traffic than local roads and are the location of most of the network's safety and congestion problems, particularly those arterials which directly connect with the motorway network. The One System approach is especially important here as some motorway improvements cannot realise their intended benefits because the capacity constraint is actually traffic entering and leaving via the arterials.

Arterial roads are often not able to cope with additional vehicle traffic, whilst widening roads and intersections is prohibitively expensive and can create problems for

pedestrians and for people living locally as multi-lane roads are significant barriers to local trips, especially for the young and elderly. Auckland's arterial roads are also the location of most of the city's shops, schools and other important destinations. It becomes essential to set priorities considering public transport, freight, walking, cycling, and general traffic. The order of priority of these different road users will vary depending on the road, and may vary by time of day on a single road.

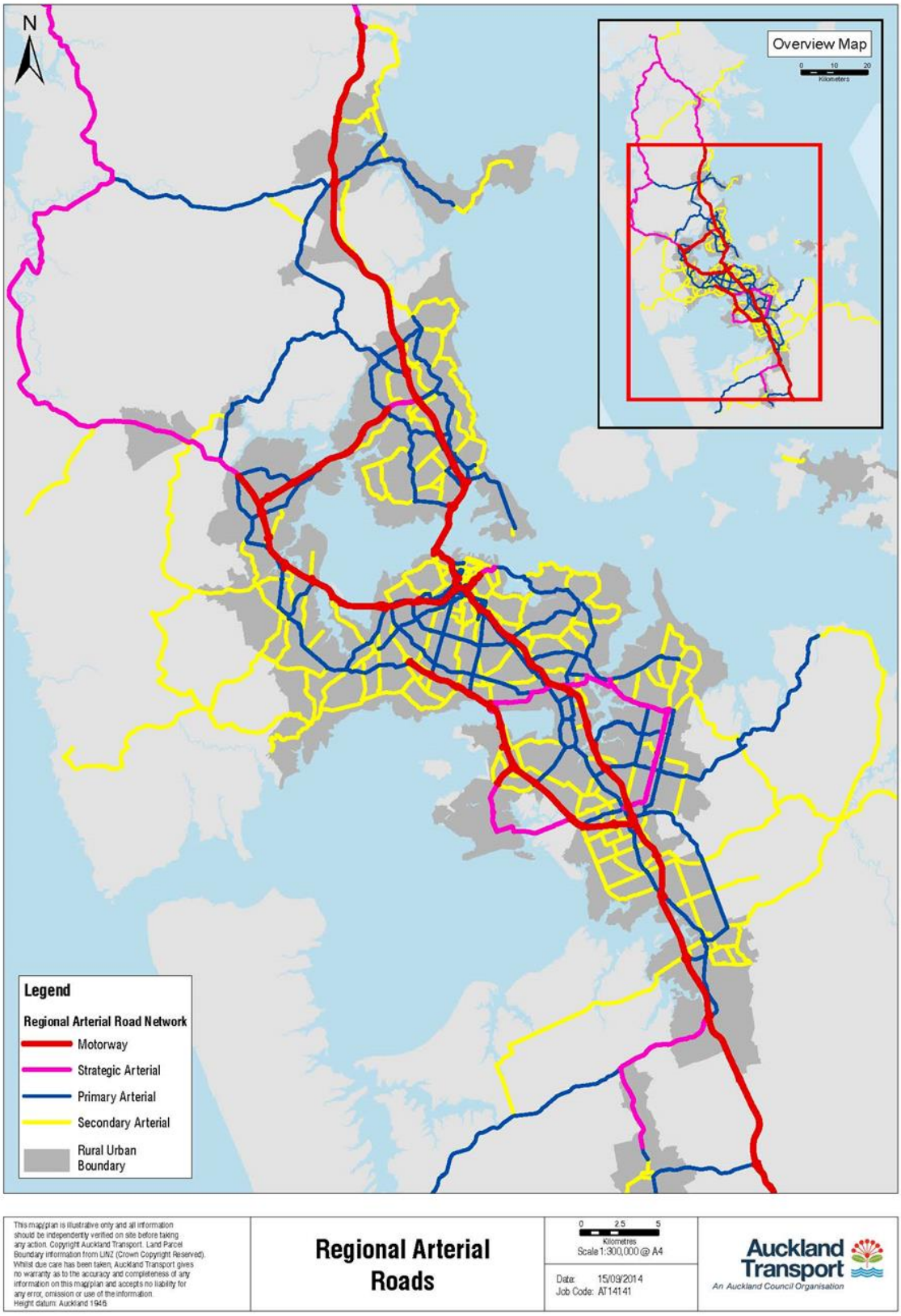
Over the ten years of this plan, Auckland Transport's focus for road improvements will be the arterial network as shown in Figure 14 and the freight network shown in Figure 15. The highest priority arterial improvements include the completion of Albany Highway and the construction of Te Atatu Rd, which feed traffic onto and accept traffic from State Highway 16. The programme provides for these roads to be upgraded during the first three years. Te Atatu Road is essential to securing the benefits of the Western Ring Route project delivered by the Transport Agency.

In addition, the Department of Conservation (DOC) holds a road network across Auckland and New Zealand. DOC has been working with the Transport Agency to strengthen their management of roads for the benefit of road users. Previously, DOC has received funding through the Transport Agency for the management and maintenance of Special Purpose Roads. However, as a Road Controlling Authority, co-funding through the NLTP will allow DOC to provide a more consistent level of service where roads cross boundaries with Auckland Transport or the Transport Agency, and allow DOC to manage their road assets more effectively.

7.2 Moving People

Everyone in Auckland uses the transport network and almost everyone uses the arterials at peak times. This is true whether one is a driver or car passenger, pedestrian, cyclist, motorcyclist or bus passenger. Even people travelling by train, ferry or on the motorway network, use arterial roads for part of their journey.

Figure 14: Auckland Arterial Road Network



While the great majority of trips go smoothly, if a customer does experience delays or safety issues this is most likely to be on an arterial road, and most likely at peak times. Unlike the motorway network, which works best when traffic flows smoothly, the "best" arterial road is one where vehicle flow is balanced with other

considerations including safety, the priority of different users, cross-movements, and the needs of retail and other land uses.

Widespread uptake of GPS tracking devices, the rollout of HOP cards on buses and advances in mapping and data analysis mean that Auckland Transport has more information than ever about how the road network is performing. This data shows some interesting results, including:

- Overall vehicle travel is growing slower than the population. Growth in traffic on some routes in Auckland is offset by declines on other routes
- The peak is not well defined by a specific time (e.g. 7–9am and 4–6pm). The actual peak differs by place (Pukekohe residents travel earlier than Ponsonby), by purpose of travel (there is a clear "school peak" from 3–4pm), and by mode (bus travellers seem to be particularly late risers)
- On some links of the arterial network a bad run (defined as the worst 15% of travel times i.e. one trip in seven) takes twice as long as normal. However on the most congested arterials, travel times at peak are actually very consistent - that is, consistently slow.
- Public transport use is growing, especially in areas served by the Busway and bus priority lanes. On some corridors including Fanshawe St, Symonds St and Dominion Rd there are more people on buses than in cars at peak times.

To get the best performance out of the whole network, Auckland Transport and the Transport Agency have established the Auckland Traffic Operations Centre (ATOC) which is the central hub for the network of traffic signals, sensors and CCTVs used to direct traffic flows, inform road users and respond to emergencies. The ATOC team work to improve the performance of each road and the resilience of the whole network. This includes managing traffic signals to optimise traffic flow, giving priority to buses, and responding quickly to incidents. The team is constantly looking for ways to move more people along each corridor safely, while minimising the negative effects of traffic on neighbouring homes and businesses. This RLTP also provides for small infrastructure improvements to improve road productivity.

An arterial road is "optimised" when:

- The road is safe
- The number and/or speed of people movements are improving and approaching the standard of productivity defined for arterial roads by Austroads. On many arterials the best way to improve productivity is to give priority to buses and/or cars with passengers
- Reliability, defined as the ratio of the worst 15% of travel times compared to the median travel time, is improving
- Provision for cycling is in line with the Auckland Regional Cycle Network standards
- Pedestrians have a choice of places to cross the road safely, with minimal detours or delays
- There is enough access to side roads to serve the adjacent land uses.

7.3 Moving Freight

The demand for the movement of freight in Auckland is substantial. For 2012 it was estimated that 65.45 million tonnes were moved within, to or from the Auckland region. This represents 26% of the national and about 47% of the total Upper North Island (UNI) freight flows (excluding pipelines). The volumes reflect:

- The presence of several major international gateways (Ports of Auckland, Auckland International Airport and MetroPort), for the movement of goods by air and sea
- A high level of manufacturing and transport and distribution activities; and
- The substantial population in the region.

The international gateways are estimated to handle 12% of total freight in the region.

Road is the dominant mode for the movement of goods accounting for 87% of tonnes carried, representing 25% of the total tonnage moved by road in NZ. Rail freight accounted for 7% of the total for the region but this again was important nationally accounting for 27% of all movements by rail. Coastal shipping has a relatively small share of regional freight traffic but again this represents about a quarter of all movements nationally. Although not directly impacting on land transport movements, Auckland is also served by a pipeline that carries about 2.2 million tonnes of petroleum products between the refinery at Marsden Point and the oil terminal and distribution centre at Wiri.

The use of rail to carry freight has also been growing strongly in Auckland, driven in part by the development of inland ports at Wiri and Southdown.

Key freight movements

High heavy vehicle flows are experienced on both the State Highway network and the regional arterials during the AM peak and Inter-peak periods. The particular areas of high heavy commercial vehicle use on or around the strategic freight network include:-

- SH1 Southern Motorway - especially between Manukau and Greenlane
- SH1 Northern Motorway - North Shore down to Onewa Road,
- SH20 between Manukau and the SH20A intersection
- SH16 from Westgate to Point Chevalier including access to the port along the Strand
- SH20A/SH20B Airport access

High flows experienced on the major arterials of the region include that on the Wairau Corridor between Albany and Takapuna, the Ti Rakau/SEART/Neilson Street corridor, Highbrook Drive, Great South Road in Mt Wellington, Mt Wellington Highway, Hunua Road and Beach Road in Papakura.

The freight network is forecast to come under increasing pressure (16). Key elements are general traffic growth across the city in various centres of the region, in particular the logistics and distribution areas of Onehunga/Penrose, Highbrook/East Tamaki, and the Airport business area.

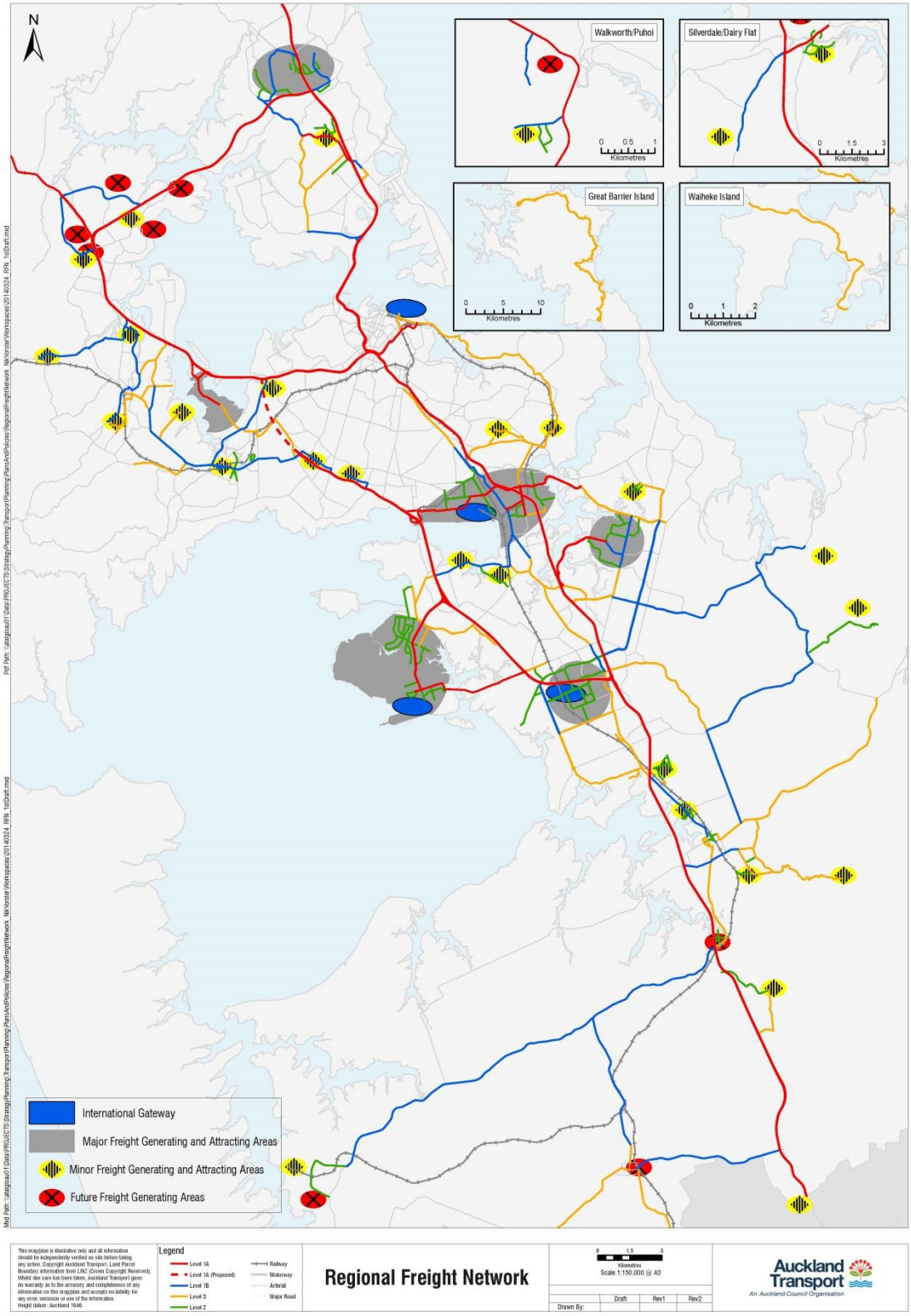
Freight traffic is forecast to grow substantially in future years increasing by almost 75% between 2012 and 2042, from 65.45 million tonnes to over 100 million tonnes. Although much of this growth is related to traffic growth within the region, freight movements between Auckland and the other UNI regions are also expected to increase by about 60%. The relatively high increase for internal movements means that it is the freight network within the region that will be under the greatest pressure and not the strategic routes linking to other regions. This is consistent with the importance of the first mile – last mile part of the journey which creates the biggest challenge to freight movement in the region.

Freight movement can often be assisted by good network management even without physical changes to the road. Optimising traffic signals on freight routes can potentially ensure that heavy commercial vehicles proceed steadily by avoiding the need for repeated stops and starts. Road works and planned disruptions can be communicated widely, with unplanned disruptions managed via contingency plans. Over the period from 2012–2014, transport agencies in the region have managed to hold inter-peak travel times and travel time reliability for freight roughly constant on those freight routes used for performance measurement, despite increases in freight and business travel volumes.This indicates that the types of measures introduced to improve routes for heavy commercial vehicle movements could also potentially benefit some types of business movements.

Figure 15 shows the Auckland Regional Freight Network. It consists of three levels:

- All roads defined as level 1 are important for the strategic movement of inter- and intra-regional freight
- Roads defined as level 2 are intended to serve primarily freight movements in areas such as industrial parks
- Roads classified as level 3 where freight has no particular priority but requires active management.
- All of the rail network is considered of strategic value for inter-regional freight

Figure 15: Regional Freight Network



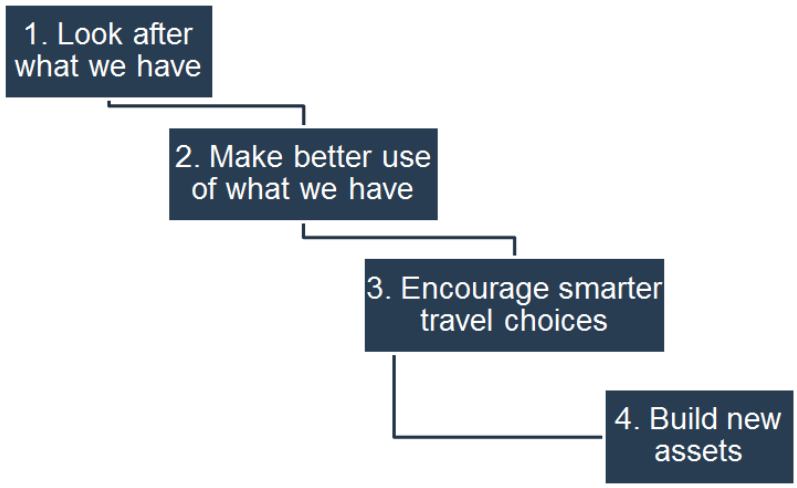
7.4 Road costs

Auckland's rapid growth creates pressure to prioritise spending on new assets, but Auckland Transport and the Transport Agency must ensure this is not at the expense

of the central task of maintaining the value of existing assets and delivering the best performance from the network.

Auckland Transport applies a hierarchy of four transport interventions as shown below in order to derive the greatest benefit from transport investment.

Figure 16: The four stage intervention process



Auckland Transport is working with the Transport Agency to improve consistency in the way road assets are managed in the various elements of the State Highway and local transport networks. The One Network Road Classification aims to improve value for money through a nationally consistent roading hierarchy, with evidence-based service levels that will meet stakeholder and customer requirements appropriate to the role of each road in the national network, and the optimal works associated with delivering these.

7.4.1 Road Maintenance and Operations

The maintenance of road assets is one of the largest areas of expenditure for Auckland Transport.

Road maintenance is considered a non-discretionary expenditure, as short term savings add to costs later. Auckland Transport uses an advanced Asset Management Planning model to determine the most cost-effective and sustainable management regimes for the road network, to meet the levels of service required and achieve the best value for money in the long term. This has involved defining the required "level of service" for each road - the more important links in the road network need to be maintained to a higher standard in keeping with their higher role. Auckland Transport is securing better value for money through setting clear priorities and negotiating longer term (3–5 year) contracts covering maintenance of the road network.

In addition to physical road maintenance, Auckland Transport is also responsible for road network management and optimisation. This also covers the work of the Auckland Traffic Operations Centre to manage traffic flows and to optimise people movement on key arterials.

Roads Operating cost	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Road maintenance and operations	**115.3**	**115.3**	**115.3**	**851.6**

7.4.2 Road Renewals

Maintenance is the day to day activities needed to keep the network operating safely. Renewals restore the service capability of an asset.

Auckland Transport is mandated to provide optimal stewardship of the transport network. This includes the efficient management of renewals, maintenance and performance. It does this through effective asset management planning, recorded through the publication of an Asset Management Plan (AMP) every three years.

The benefits of investment to renew assets include:

- Optimising the useful life of assets and minimising the costs of renewing and maintaining items
- Effective management of the asset to meet present and future demands
- Reducing and managing the risk of asset failure.

For the first three years of the RLTP, renewals funding has been approved at a level close to the AMP recommended levels. This will enable Auckland Transport to maintain the current levels of service without any adverse effects for the first three years. However in the seven years from 2018/19, the Long Term Plan proposes to reduce renewals funding by a significant margin relative to AMP's recommendation.

The implications of the approved LTP renewals funding are:

- Customer satisfaction with roads, footpaths and public transport maintained at their current high levels to 2017/18, but are at risk thereafter
- Renewals backlog is manageable in the early years, but grows rapidly from 2018/19 to over $1 billion by the end of the 10 year period
- Maintenance budgets are adequate in the early years, but would need to be increased thereafter to compensate for worse asset condition

The next Long Term Planning cycle, leading to publication of the 2018-28 Asset Management Plan, provides an opportunity to address the significant issues raised by the proposed future shortfall in renewals funding.

Roads Renewals	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Renewals - Roads	**175.7**	**202.7**	**212.9**	**1,629.6**

The table below shows the outcomes that investment will bring

Outcomes from investment	Full funding of the optimum renewals programme over the 2015/16 - 2017/18 period. As a result Auckland Transport's assets will be renewed as needed and will continue to deliver the level of service that customers expect. Beyond 2018, funding for renewals has been set at a level below Auckland Transport's recommendation, with forecast consequences for asset condition and value which are described in detail in Auckland Transport's Asset Management Plan. The 2018 Long Term Plan process provides an opportunity to review the level of funding for renewals of road and public transport assets.

7.4.3 Road infrastructure improvements

The Accelerated Transport Programme provides for funding for the completion of Albany Highway North project and Te Atatu Road corridor improvements. These types of projects are generally funded as Road projects although they also contribute to public transport, walking and cycling goals. The Albany Highway project demonstrates this approach, providing walking and cycling links to schools and Massey University and a priority lane shared by buses and cars with two or more occupants. Te Atatu Road improvements will enable additional road capacity to take advantage of the improvements that the Transport Agency is making to the Western Ring Route, whilst also improving safety for cyclists heading towards the Northwestern cycleway. It also provides for the investigation, design and property acquisition for projects which will not be constructed in the first three years of the programme, such as Lincoln Road, East-West Link, planning and route protection for a future rapid transit route to the airport (up to designation only) and the Mill Road improvements.

Outside these areas, Auckland Transport's focus for the road network is on making better use of assets, including by managing demand. Many of the new projects proposed during the term of this plan are bus priority projects or minor enhancements to existing roads and traffic management projects which make the most of new technology to enhance safety, optimise traffic flows, and respond promptly to incidents.

Roads Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m	Other benefits (in addition to road benefits)
Akoranga Busway Station Improvements				1.4	
Albany Highway Upgrade (North)	23.5	13.1	1.1		PT, Active
AMETI Programme	10.3	21.1	32.5	488.3	PT, Active
ATOC Integration of JTOC & ATOC	3.6	3.7	3.8	22.1	
Dominion Road Corridor Upgrade				59.6	
East West Connections	1.5	1.6	1.6	130.8	PT, Active

Roads	2015/16	2016/17	2017/18	2018/19 to 2024/25	Other benefits
Encroachment Resolutions Land Purchase	1.2	1.3	1.3	10.5	
Lincoln Road - Corridor Improvements	1.8	2.1		50.7	PT, Active
Manukau/Harris/Custom Intersection Improvement	0.5	1.3			
Network Operating Plan Capital Programme	2.6	2.6	2.7	15.8	
Newmarket Crossing	1.0	5.3			
North Western Busway				43.0	
NWT Hobsonville Point P n R (PC13)		0.5			
Penlink Toll Road	1.3				
Seal Extensions	3.3	3.3	3.3	8.6	
Seismic Strengthening	1.0	1.1	1.1	59.6	
Seismic Strengthening - Quay Street				48.7	
Street Lighting improvements-regionwide	0.3	0.3	0.3	2.6	
Street lighting Upgrade LED	4.5	4.6	4.8	47.9	
Taharoto/Wairau -Stg 3 F'Hill-Shakspeare				4.3	Active
Tamaki Dr and Ngapipi Intersect Safety I		4.3			
Te Atatu Rd: Corridor Improvements	13.7	6.6			Active
Warkworth Western Collector		3.4			
Wynyard Quarter - Integrated Rd Prog	5.5				
Roads Total	**75.7**	**76.2**	**52.5**	**993.8**	

The Auckland development programme of Auckland Council also delivers improvements to local roads and streetscapes.

7.5 Value for Money – Roads

7.5.1 Arterial and Local Road Maintenance and Optimisation – Value for Money

The benefits of road maintenance and road network management and optimisation have been assessed using the prioritisation methodology set out in Section 4.5.

- The Strategic Fit, which is High because of the priority given to maintaining and optimising existing assets in the Auckland Plan and the Government Policy Statement
- Effectiveness, High because these activities are part of an integrated plan to achieve multiple outcomes as set out in the Arterial Road Deficiency Analysis and the Roads Asset Management Plan
- Efficiency, which compares the costs against the Transport Agency's assessment of the dollar value of benefits. Again this is High:

- For road maintenance, because the programme reduces whole of life costs;
- For road corridor optimisation, because travel time savings from these projects commonly have a value over 10 times the project cost.

Road Maintenance	Strategic Fit	**High**	Effectiveness	**High**	Efficiency	**High**
Road network management & optimisation	Strategic Fit	**High**	Effectiveness	**High**	Efficiency	**High**

7.5.2 AMETI and East West Connections – Value for Money

The table below shows the major projects in the programme and the outcomes that these improvements will bring

Outcomes from investment	**AMETI** • Momentum continued through 2015-18 period, with Panmure roundabout replaced with signals and the Panmure-Pakuranga busway commenced. • Budget provision in 2015/16 is particularly low relative to current AMETI investment levels. **East West Connections** • There are two parts to East West Connections – the first is to improve freight and the region's economic productivity which is being led by the Transport Agency. The second is to improve people movement between Mangere, Otahuhu and Sylvia Park. To improve the people movement, $1.5 million per annum allows for investigation, design and potentially some small improvements across the 2015/16 to 2018/19 period. Construction is scheduled in the 2019/20 to 2021/22 period. Timing aligns with current expectations on the Transport Agency's freight improvements in the area.

The AMETI package of projects has been assessed as a single, integrated programme of improvements with high strategic fit and high effectiveness, with a wide range of benefits. AMETI has a Low economic efficiency using the Transport Agency's procedures, due to many of the project benefits not being recognised in the evaluation. Constructing the required improvements now is expensive due to the need to cross water, purchase land, and make changes through a built-up area with high property values.

	Strategic Fit	Effectiveness	Efficiency
Auckland Manukau Eastern Transport Initiative	**High**	**High**	**Low (1.2)**

The benefits of other projects in the Road Improvement programme above have been assessed using the prioritisation methodology set out in Section 4.5. There are a large number of projects and a wide variation between them on all aspects of the evaluation; the full list is provided in Section 16.2.

7.6 Arterial and Local Road Outcomes

The table below shows the road improvement projects in the programme and the outcomes that these improvements will bring

What gets delivered in this programme	The first three years focuses on: • The completion of committed projects (eg. the Albany Highway Upgrade), • Local road initiatives that integrate and optimise State Highway and other recent investments (e.g. Te Atatu Corridor delivered by 2017 to support the Western Ring Route) • Route optimisation / network operating plan initiatives including 30 minor network efficiency improvements by 2018 and implementation of other efficiency interventions such as dynamic traffic lanes
Outcomes from investment	• Reduced congestion and improved efficiency in moving people and goods on the roading network • Major arterial improvements delivered sooner to support growth, address urban congestion and safety concerns along existing corridors – e.g. Te Atatu Corridor, Mill Road (northern)

The proposed performance measures for roads reflect the great variety of roads and road users in Auckland. This is a very complex area; Aucklanders make millions of trips each day and every trip is different, so it is a challenge to develop measures which sum up how the network as a whole is performing for buses, freight, walking, cycling and general traffic.

Public Transport, Road Safety and Walking and Cycling targets are in separate chapters of this RLTP but road projects can make important contributions to achieving these targets.

The proposed performance measures for roads, along with the targets achievable within proposed budgets, are set out below. Note these indicators are also influenced by external factors including fuel prices and population growth.

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19- 24/25
Transform and elevate customer focus and experience	Customer satisfaction - Roads	71%	70%	70%	70%	70%	70%
	Arterial road productivity[1]	68%	53% of the ideal achieved	54% of the ideal achieved	55% of the ideal achieved	55% of the ideal achieved	55% of the ideal achieved

[1] Road productivity is a measure of the efficiency of the road in moving people during the peak hour. It is measured as the product of number of vehicles, their average journey speed and average vehicular occupancy. Key arterial routes include:
Airport to CBD (via Manukau Rd)
St Lukes to St Johns (via Balmoral/Greenlane West/Greenlane East/Remuera Rd)
Albany to Birkenhead (via Glenfield Rd)
Henderson to CBD (via Great North Rd)
SH1 to Ti Rakau Dr (via Te Irirangi Dr)
SH20 to Portage Rd (via Tiverton/Wolverton Rd)

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19- 24/25
Build network optimisation and resilience	Travel times on key freight routes[2]	Baseline travel times maintained on 6 out of 8 routes	Maintain travel times for 85th percentile on all nominated freight routes	Maintain baseline travel times for the 85th percentile	Maintain baseline travel times for the 85th percentile	Maintain baseline travel times for the 85th percentile	Maintain baseline travel times for the 85th percentile
	Road maintenance standards (ride quality) as measured by smooth travel exposure (STE) for all urban and rural roads[3]	Rural 95 Urban 85	New Measure	Rural 93 Urban 83	Rural 92 Urban 82	Rural 91 Urban 81	Rural 87 Urban 77
	Percentage of the sealed local road network that is resurfaced	7.6%	New Measure	8%	8%	8%	8%
	Percentage of customer service requests relating to roads which receive a response within the time frame specified in Auckland Council's Long-term Plan.	85%	New Measure (not included in A.P.)	85%	85%	85%	85%

8. Public Transport

Key outcomes	• Increased public transport boardings and substantial travel time savings. • Longer and more frequent trains. • Improved safety at rail level crossings, on trains and at stations.

[2] Target travel times on nominated strategic freight routes:

Route	Travel Time (mins)
SEART (from Sylvia Park to East Tamaki)	11
SEART (from East Tamaki to Sylvia Park)	12
Wairau Rd (from SH1 to SH18)	8
Wairau Rd (from SH18 to SH1)	8
Harris Rd (from East Tamaki to SH1 Highbrook interchange)	10
Harris Rd (from SH1 Highbrook interchange to East Tamaki)	11
Kaka St/James Feltcher Dr/Favona Rd/Walmsley Rd (SH20 to Walmsley)*	13
Kaka St/James Feltcher Dr/Favona Rd/Walmsley Rd (Walmsley to SH20)*	13
Great South Rd (SH1 Ellerslie Panmure Hwy Interchange to Portage Rd)*	11
Great South Rd (Portage Rd to SH1 Ellerslie Panmure Hwy Interchange)*	11

*New added route

[3] Smooth travel exposure measures the proportion of vehicles kilometres travelled in a year (VKT) that occurs on 'smooth' sealed roads and indicates the ride quality experienced by motorists.

	• Successful rollout of the integrated public transport New Network – reducing duplication and increasing frequency across the network

The transformational shift to outstanding public transport is an essential component of Auckland's overall vision to become the world's most liveable city.

Everyone benefits from good public transport, including road freight businesses and car drivers. As more roads are built, more people choose to travel by car and soon traffic congestion is at the same level as before the new road was built. In contrast, public transport can provide people with the opportunity to avoid congestion (by using services that operate in their own right of way or along bus lanes), it can enable a greater number of people to be moved along constrained corridors and by attracting people out of their cars, it can free up road space for business, freight and other trips that continue to use private vehicles.

Not everyone who uses public transport has a choice. For people who cannot drive, or cannot afford a car, public transport opens up opportunities for education, work and a social life. A public transport system that works well for the young, the old and the mobility impaired, and serves the whole community including low income neighbourhoods, builds a stronger, more inclusive society.

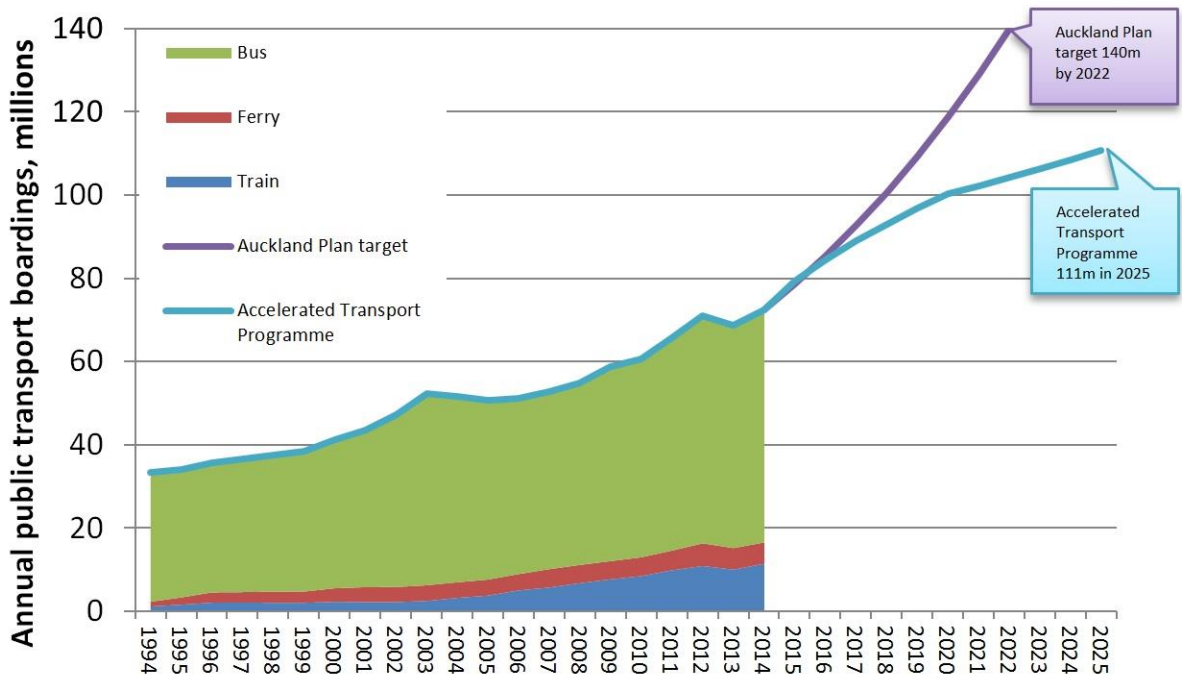
Without increasing the patronage of public transport our road systems will grind to a halt as population increases. The basic public transport philosophy, known as the New Network, is proposing to use the high capacity dedicated corridors (for example, rail and busways) as the backbone of the public transport system which other modes can feed into. This ensures that modes are not competing with each other and the savings in kilometres can be recycled into additional service frequency.

It is essential that we are able to increase the capacity of the public transport network. Our plans for the City Rail Link, light rail, double decker buses on dedicated bus lanes at higher frequency will encourage more Aucklanders to travel by public transport and, by doing so, decongest the road network.

Over the past 20 years, public transport patronage in Auckland has more than doubled, from 33.3 million trips in 1993/94 to 72.4 million in 2013/14, as shown in Figure 17. The Auckland Plan sets an aspirational target for public transport patronage to be doubled again, to 140 million trips, by 2022.

Figure 17: Auckland public transport patronage 1994–2014

Note: Does not take into account the patronage benefits of the CRL, which will be significant



Auckland Transport has commenced a transformational change of public transport within the region and has identified eight strategic priorities which are supported by an on-going marketing growth strategy. These strategic priorities have been identified as an interdependent programme to deliver upon the Auckland Plan target of doubling patronage to 140 million tips per annum by 2022:

1. Integrated fares
2. Procurement and contract reform
3. Rail electrification
4. Ferry improvements
5. New network implementation
6. On-time performance
7. First and final leg
8. Customer experience

8.1 The New Network

In the first year of this Plan, Auckland Transport will complete the deployment of fast, reliable new electric trains.

The next step forward for public transport will be the rollout of a simpler, better-connected bus network which offers more frequent and reliable access to more destinations. The "PT New Network" will untangle the complex web of infrequent bus services and put in place a simpler network of frequent bus services as shown in Figure 18. With the New Network and the City Rail Link in place, even more Aucklanders will have the option of fast, frequent and reliable travel, without having to use a car.

To make the most of the New Network, people will need to make some changes to the way they travel, and be willing to transfer from one public transport service to another to complete their journey. The essential infrastructure needed to support the

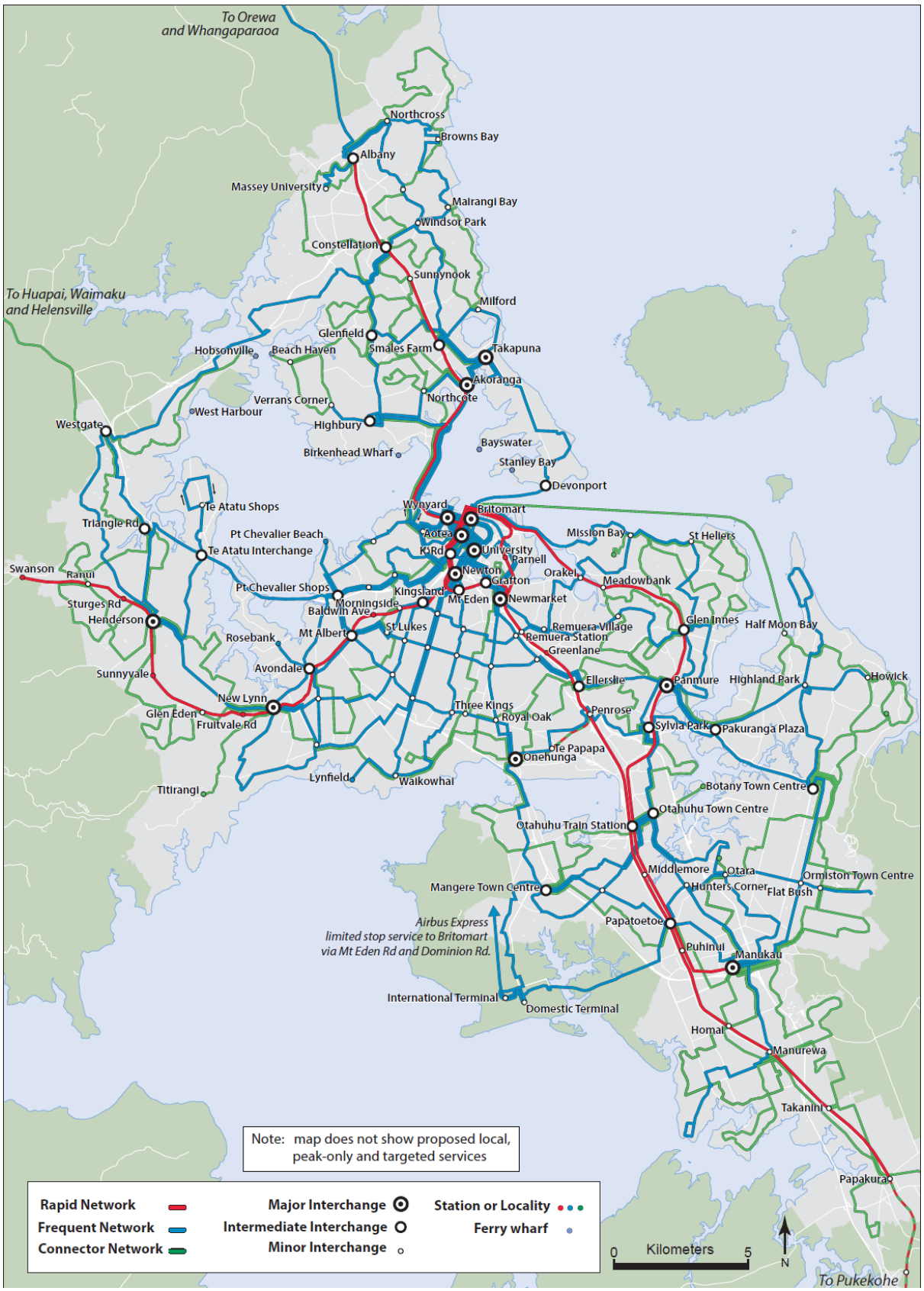
New Network includes interchanges at Manukau, Otahuhu and Pukekohe, where buses from local suburbs can turn around, offering better frequency, while fast electric train services mean that for most passengers their trip will take less time in total.

Consultation on the New Network is progressing, with consultation completed for South Auckland, Green Bay/Titirangi, Hibiscus Coast, Warkworth, Pukekohe, Waiuku and Tuakau, and West Auckland. The New Network is due to be implemented from 2016 and is reliant on infrastructure being in place to achieve the anticipated benefits of the network changes.

In the draft RLTP, funding was limited for public transport infrastructure until 2021, however following consultation, additional funding has been identified in the first three years to enable key infrastructure (such as Otahuhu, Manukau, Te Atatu, Silverdale and Pukekohe interchanges, bus stop improvements, bus / transit lanes, bus priority and city centre bus improvements) to be delivered.

In addition to new services, Auckland Transport is proposing to introduce integrated fares. Integrated fares build on the popularity of the HOP card, and offer the opportunity to make seamless journeys across public transport modes and services. While this will initially be across bus and train services, the inclusion of ferry services will be considered in consultation with ferry service providers. Public transport pricing will be simplified with the introduction of fewer zones. Additional cost will be incurred by crossing zones borders and not by changing services. So whether you choose to travel by train or bus, and whether you catch one bus or transfer between bus services, a trip between the same two places will always cost the same.

Figure 18: Public Transport New Network in 2022



8.2 Rail

The Auckland region contains over 185km of rail tracks (95 route kilometres). The vast majority of which is double-tracked allowing trains to move in both directions at the same time. At present 77 route kilometres are electrified and the lines served by the new electric trains. There are currently 41 stations in the Auckland region, the majority of which have been upgraded over the last decade. This RLTP will see the last few stations upgraded and the removal of the Newmarket level crossing.

The region contains 31 combined vehicle / pedestrian level crossings and 20 pedestrian level crossings, the majority being in the core network between Swanson and Papakura. More train movements will result in the level crossings being closed for longer a period which, in turn, leads to more congestion on the local road network. It will also increase the risk of accidents as road users (and pedestrians) may become frustrated at the delays and try and attempt to cross in front of oncoming trains.

8.2.1 City Rail Link

The City Rail Link is a 3.4 km underground rail line that will connect Britomart station with the Western rail line at Mt Eden via new stations at Aotea Square and Karangahape Road which will transform the way Aucklanders travel around the city.

The City Rail Link is Auckland's biggest economic development project with investment already starting to grow around the route prior to the start of construction.

Around the world, successful cities are the growth engine of a highly productive economy due to having access to a wide pool of skilled workers, while the buzz of people and ideas creates the momentum for attracting ever more skilled and talented people. Moving more people necessitates efficient transport and successful cities around the world have had to solve the problem of how to move ever more people into and around the city as land and space become more valuable (5).

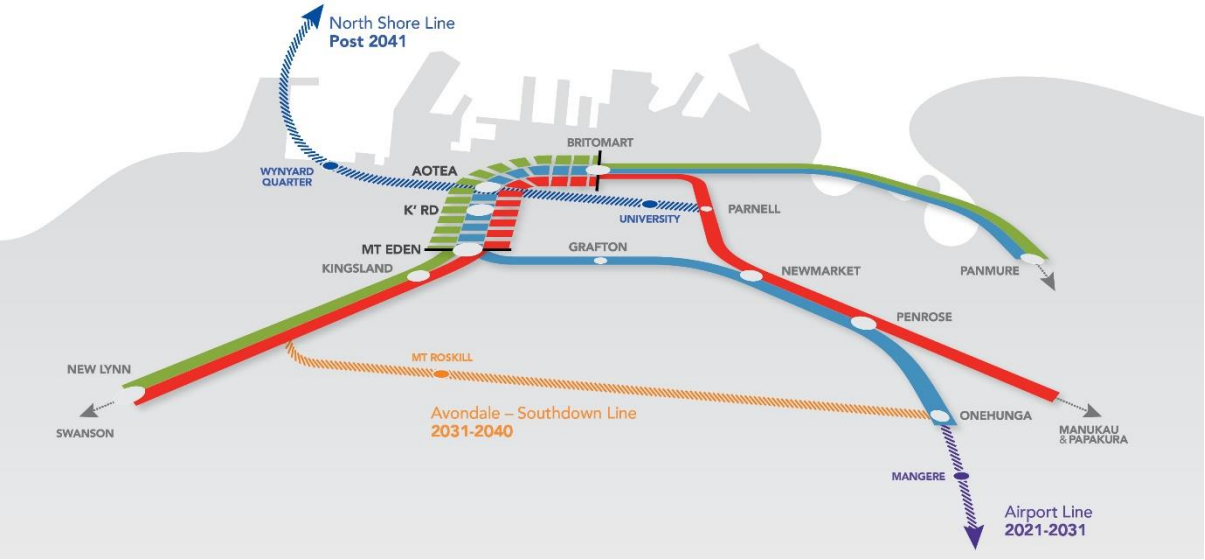
The City Rail Link will remove the bottleneck at Britomart station which currently limits Auckland's rail access to the city centre. It will also enable the rail network to serve the busiest parts of Auckland's city centre. By providing easy, congestion-free access to the city centre, the City Rail Link enable a more productive local economy through faster travel times into the city.

For example, the travel time between New Lynn and the city centre will reduce from 50 minutes currently to about 25 minutes.

Indicative Travel Times to City Rail Link Stations

Travel Times to City Rail Link Stations					
From	To	Travel by train / bus (minutes)			Percentage improvement in travel time
		Before CRL	After CRL	Reduced travel time	
New Lynn	Aotea Station	51	23	28	55%
Morningside	Aotea Station	39	14	25	64%
Onehunga	K'Road Station	47	27	20	43%
Manukau	K'Road Station	61	42	19	31%
Newmarket	Aotea Station	27	10	17	63%
Britomart	Mount Eden	16	9	7	44%

Figure 19: The City Rail Link and future rail network



Providing a more frequent and reliable train service will allow bus feeder routes to be realigned and linked to rail services, instead of providing trips across town.

In addition to providing rail users with faster, more frequent and more reliable train services, the City Rail Link will significantly reduce pressure on our roads. Relying on more buses even with continuous bus lanes, will not help as bus congestion in the city centre is already becoming an issue.

More people using public transport to, from and through the city centre will free up parking and traffic space which can be reallocated to facilitate growing pedestrian numbers. Projects such as the Victoria St Linear Park will encourage people to linger and enjoy being in the centre of a world class city. The successful transformations of the Viaduct, Wynyard Quarter and Britomart are a model for how vibrant and lively the heart of our city can become.

8.2.2 City Rail Link costs

The City Rail Link project consists of two construction phases. The first phase entails early enabling works, timed alongside the redevelopment of the Downtown Shopping Centre. Completing the enabling works, including a "cut and cover" tunnel between Britomart and Downtown, and under Albert Street as far as Wyndham Street is a sensible sequencing of enabling works which will minimise disruption of critical intersections in the CBD, and enable compliance with the planning conditions that only one intersection can be out of action at any one time. A more compact construction schedule at a later time would prove too disruptive.

City Rail Link Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
City Rail Link	**113.8**	**156.5**	**124.8**	**1,947.0**

This RLTP is based on the City Rail link being open for business in 2023, which is consistent with the Long Term Plan. The operating costs of the new CRL stations and facilities are included in the later years of this 10-year plan as indicated in the table below:

City Rail Link Operating costs	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
City Rail Link operating costs				**89.6**

8.2.3 City Rail Link value for money

The City Rail Link project has been prioritised using the methodology set out in Section 4.5, and has the following profile:

	Strategic Fit	Effectiveness	Efficiency
City Rail Link	**High**	**High**	**Low***

The City Rail Link project has the highest strategic fit score of any project when assessed using the prioritisation methodology for this RLTP, and also scores "High" for effectiveness. The project is anticipated to have far-reaching benefits, many of which have not been taken into account in the current evaluation. Further, costs are significant because the CRL corridor was not protected in past plans, so its construction now includes substantial costs including the purchase of land in the city centre and deep tunnelling.

8.2.4 Rail Network Improvements

KiwiRail is the Government agency responsible for the national rail network. Auckland Transport and KiwiRail have worked together to develop a Rail Development Pathway which sets out the network investments required to deliver a robust and reliable rail network capable of supporting growth in passenger and freight services.

These include:

- Core network, capacity, resilience and electrification improvements
- Rail network renewals (including any necessary "catch up" renewals), and
- Improvements that support a combination of passenger and freight services (including a potential new Third Rail Line).

Initiatives identified for completion during the 10 years of this RLTP involve network resilience, performance and capacity improvements necessary to bring the network up to a fit for purpose state and provide for future passenger and freight service frequencies.

Improvements also include extension of electrification to Pukekohe, future stages of the Third Rail Line, and other improvements to separate potentially conflicting train movements as frequencies continue to increase.

Figure 20: Example of Track in poor condition

8.2.5 Rail Network Challenges

The performance of passenger rail services has improved over the past decade at the same time as service levels have increased significantly. Service punctuality (trains arriving within 5 minutes of schedule) improved from just over 70 % in 2005 to around 88% in the year to June 2014. Delays to trains caused by network infrastructure problems dropped from an average of 1.4 minutes per train in 2005 to just over 0.4 minutes in 2014. However, further improvement in infrastructure performance will be needed if desired levels of reliability and performance are to be achieved by the opening of the CRL.

Figure 21: Example of track in good condition

One factor in improving punctuality and reliability will be ensuring that rail infrastructure is in a fit for purpose condition. While there has been significant improvement in the condition of the Auckland network over the past decade through KiwiRail's DART (Developing Auckland's Rail Transport) and AEP (Auckland Electrification Project) projects, including total replacement of the signalling system, there is still a significant extent of track and underlying formation which has not been renewed.

8.2.6 Rail Network Response

The development pathway needed to achieve this comprises a:

Network Performance Programme - to address existing network performance issues, including catch up renewals to address existing formation, drainage and track issues and replace sleepers.

Network Resilience Programme - to improve current network resilience to provide additional operational flexibility, ability to recover from delays and incidents, make maximum use of the existing network capacity and capability, and improve management of network maintenance and development.

Network Capacity Programme - to enable the operation of regular 10 minute peak EMU (Electric Multiple Units - Electric trains) services and existing peak freight services following the completion of electrification and to provide the base for the pattern and frequency of passenger services planned for introduction following the completion of the CRL.

Level Crossing Programme - to remove level crossings on the Auckland electrified rail network to reduce safety risk for vehicles, pedestrians, cyclists and rail users through closure or grade separation, including safety improvements at existing vehicle and pedestrian crossings. The new electric trains have a safety feature enabled which enforces a reduction of speed as a train approaches a level crossing. Consequently the train operates slower on lines where there are level crossings and removing the crossing will also improve network efficiency.

8.2.7 Rail Network costs

The table below illustrates the cost of the rail development pathway:

Rail Network	2015/16	2016/17	2017/18	2018/19
Capital Expenditure - KiwiRail	$m, inflated			to 2024/25
Third Rail Line Otahuhu/Wiri	15.4	15.8	16.3	
Auckland Train Control Centre KiwiR ITP	0.0	10.5	10.8	

Rail Network	2015/16	2016/17	2017/18	2018/19
Crossovers	6.4	6.6	6.8	7.0
Signalling Improvements	1.0	1.1		
Catch-up renewals etc.	16.2	16.7	17.1	54.6
Traction	12.8	13.2	13.5	13.9
POAL Access Improvements	10.3	10.5		
Pukekohe Rail Electrification				174.6
Paerata Junction / Mission Bush				13.2
Total KiwiRail network improvements	**62.2**	**74.4**	**64.5**	**263.3**
Dependent on confirmation of funding				

The need for further investment in rail in Auckland over the next 5 to 10 years has been identified in the rail development pathway described above. KiwiRail has advised its support for the four elements of the pathway. However, delivery of the pathway has yet to be confirmed due to the lack of funding.

There is currently no clear avenue for the funding of rail infrastructure improvements. The Transport Agency is currently unable to fund rail infrastructure and KiwiRail's investment is limited to freight projects where there is a demonstrated commercial return. Auckland Council's role, if any, in funding rail network infrastructure improvements e.g. track, signalling, electrification is also unclear given the Auckland rail network is owned by the Crown and managed by KiwiRail.

Without confirmation of funding, the programme of improvements required to ensure a robust and reliable rail network to support future passenger and freight services cannot be implemented.

Benefits from investing in rail network improvements include:

- Provide a robust and resilient Auckland rail network to support the operation of passenger rail services at a 95% punctuality by the opening of the City Rail Link
- Increase capacity to enable the operation of regular 10 minute peak passenger rail services and to cater for expected growth in both passenger and freight services
- Incorporate extensions to the existing Auckland rail network; and
- Reduce safety risk especially at level crossings.

8.2.8 Rail costs (Auckland Transport)

Auckland Transport's rail costs comprise:

- The operational costs of providing a rail service and of maintaining stations and facilities
- Renewals of 41 rail stations in service on five lines, and of 57 electric trains and one maintenance depot.

These costs are summarised below:

Rail (excluding City Rail Link) Operating cost	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Rail services and facilities (excludes City Rail Link)	**138.2**	**139.6**	**142.0**	**1,088.4**

Rail (excluding City Rail Link) Renewals	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Renewals - Rail assets	**2.7**	**3.0**	**3.2**	**34.3**

Auckland Transport will complete the purchase of electric trains. Electrification of rail to Pukekohe does not progress within the plan period, so there is provision for the refurbishment of the diesel trains which will provide a shuttle service from Papakura.

Rail (excluding City Rail Link) Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m	Other benefits (in addition to PT benefits)
Diesel Train Refurbishment				8.1	
EMU Procurement	26.8	1.0			
Newmarket Station	0.3	1.2			
Pukekohe Interchange	2.6	9.3			
Rail Crossing Separation				25.7	
Rail Station Minor Capex	0.3	0.3	0.3	2.6	
SMART	2.1	6.3	13.0	12.6	Active
PT Safety, Security and Amenity Improvements	1.8	1.9	1.9	15.5	
Rail Improvements total	**33.9**	**20.0**	**15.2**	**64.5**	

8.3 Light Rail

The Auckland city centre has the fastest population growth of any area in New Zealand, growing from 18,000 residents in 2006 to over 26,000 in 2013. Employment and tertiary numbers are also growing. The success of Auckland as a city will continue to cause congestion issues in and around the city centre. This is inevitable and to some extent a sign of a successful city and economy. However, the extraordinary growth in the city's population, coupled with Aucklanders need to travel is creating the need for further innovative transport solutions.

The 2012 City Centre Future Access Study (CCFAS) showed that the City Rail Link, together with surface bus improvement, provided the best regional solution. It also identified that the city centre is already facing access capacity issues across all road entry points which, if not addressed now, will steadily worsen. While the CCFAS was designed to address regional needs it also highlighted city centre access issues.

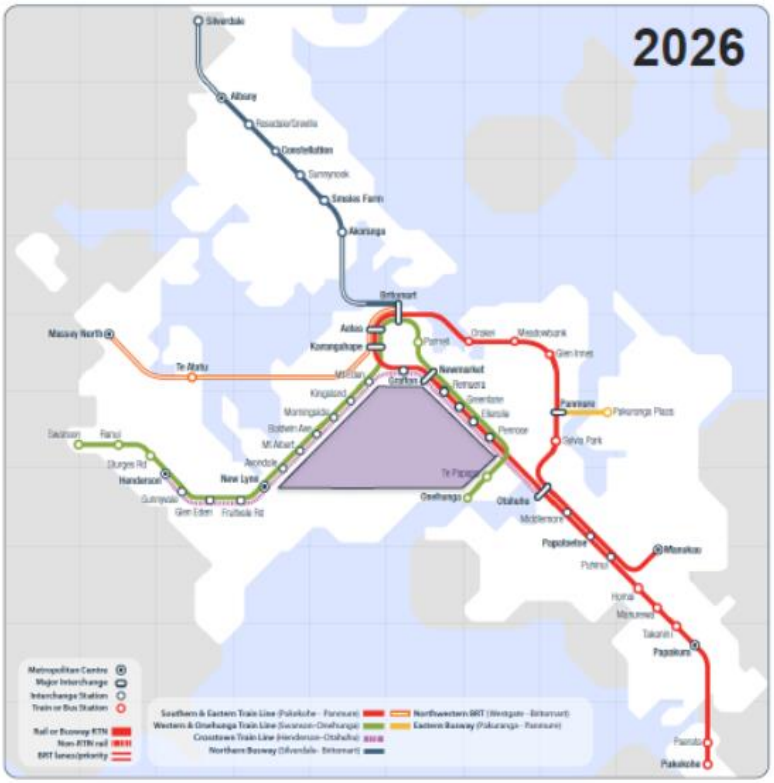
These were particularly from the central and southern isthmus not served by the rail network including:

- Key arterials such as Dominion Road and Symonds Street where major bus routes will be significantly overcapacity in the future, even with the City Rail Link and surface bus improvements
- Area-specific problems, including the impact of a high number of buses on urban amenity. These include existing bus route terminations at Britomart and Wellesley Street.

To address these issues, work is underway to determine an effective public transport solution for those parts of inner Auckland and the city centre that cannot be served by the commuter rail network.

The City Rail Link will increase the capacity on the existing commuter rail network by allowing Britomart Station to operate as a through station and significantly improve travel times on the existing network by providing alternative routing through the city. It will deal with over - capacity access points from the west, Manukau (and points southwards) and the east but will not address access from the north and the triangle from the central and southern isthmus. Critical locations such as university campuses and Wynyard Quarter cannot be served effectively by commuter rail.

Figure 22: Rapid Transit Network showing the "void" in the central isthmus



Analysis of the forecast demand on the public transport network compared to the expected capacity shows many bus routes in the inner city and central isthmus being over-capacity in the near future. Increasing the number of buses on these routes will lead to greater bus congestion.

The future solution must provide additional capacity, without degrading the quality of the city centre or surrounding neighbourhoods. Auckland Transport is evaluating a number of options to address this including double-deckers, bus lane expansion and bus interchanges. While many of these bus improvements still need to happen, they will not provide sufficient capacity in the longer term to provide for the increase in Aucklanders wishing to travel into the city centre.

Following assessment of options, a light rail network that is progressively expanding to serve the central isthmus has been identified, as the best option to overcome these issues. Similar issues and constraints in successful cities such as Sydney, Canberra and the Gold Coast have reached the same conclusion; that light rail has the ability to provide the necessary public transport capacity and support the city's intended development. Recent projects in Australasia mean significant recent experience can be drawn on for analysis.

Modern light rail solutions avoid the visual pollution of overhead lines and generate significantly less carbon emissions than the equivalent movement of passengers by bus. Figure 23 below illustrates how different modes have different capacities and travel speeds.

Figure 23: Mode Capacity - comparison of carrying capacity of buses, light rail and commuter rail

Modal Characteristics	**Average Speed (Km/Hr)**	**Maximum Capacity (People/Hr)**
Bus Shared Path	10–14	2,500
Bus Lane Separate	14–18	4,000
Busway Priority	15–22	6,000
Light Rail Shared Path	15–22	12,000
Light Rail Priority	18–40	18,000
Commuter Rail	18–40	20/25,000

Studies of the most suitable routes for light rail have been assessed and the following routes are considered the most appropriate:

- Queen Street
- Symonds Street
- Dominion Road
- Sandringham Road
- Manukau Road
- Mount Eden Road

It is perhaps unsurprising that these routes are similar to those which operated in Auckland in the 1930s and 1940s when they provided an effective means of moving large numbers of Aucklanders around before cars were in widespread use.

The development of a light rail network also opens up the potential for this mode to be considered for the long term travel solutions to the airport, the North Shore and other possibilities.

The potential cost of light rail is significant. The capital cost of this activity is not provided for in this RLTP or in the Auckland Council sister-document, the Long Term Plan. Auckland Transport is undertaking further investigations within its operating budget. Funding options are being evaluated, including the potential to introduce private sector investment. While expensive to implement, the on-going operating cost is lower than the equivalent bus fleet and the benefits of the initial investment extend over generations.

Next steps include further analysis and planning, including refinement of cost, funding and procurement.

Light Rail Transit Operating costs	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Light Rail Transit operating costs	**2.9**	**2.9**	**2.9**	**20.3**

8.4 Rail Outcomes

The table below shows the rail projects in the programme and the outcomes that these improvements will bring

What gets delivered in this programme	The programme incorporates the following activities: • City Rail Link • Newmarket Level Crossing (Sarawia Street) • $90 million from 2020 to facilitate significant improvements to other rail level crossings • $1.8 million pa throughout the programme period for public transport safety, security and amenity improvements (to be spread across the bus, rail and ferry networks) • Additional electric trains
Outcomes from investment	• Longer and more frequent trains reduce future overcrowding • Improved safety at rail level crossings and elsewhere on the network

8.5 Bus, Ferry and Multimodal Public Transport

The rollout of the public transport New Network will deliver the routes, frequencies and service levels set out in the Regional Public Transport Plan. These changes are

underpinned by new contracts and a new way of working with service providers. A key aim of these new contracts is to give Auckland Transport the tools it needs to untangle the "spaghetti" of bus routes and services that grew up over decades of operator-dominated service provision, and put in place a logical network of frequent, reliable, connected routes. The public transport New Network will provide more direct routes and more frequent services; however more customers will need to transfer between services to reach their destination.

While the New Network and new Public Transport Operating Model each have significant impacts on budgets at a detailed level, overall operational budgets have been prepared on the basis that most of the proposed changes will be cost neutral. For example, it is assumed that the cost to Auckland Transport is the same for net contracts (in which the operator keeps all revenue) and gross contracts (in which Auckland Transport pays the full cost of running the service, and also keeps the revenue). What does change however is the risk - under gross contracts, Auckland Transport stands to lose money from any drop in patronage, and must ensure it has the staff and systems in place to continuously build customer satisfaction and patronage.

Ferry services continue to add patronage albeit at a rate slower than rail and bus. New contracted ferry services are proposed to increase frequency and provide greater capacity across the ferry network. Some of these services will support proposed growth in the Gulf Harbour and Hobsonville areas.

In addition, the quality of the service provided to public transport users will be enhanced by the provision of timetable and fare/ticketing information, promotion and marketing and maintaining our public transport facilities such as the Northern Busway stations and ferry wharves.

8.5.1 Bus, Ferry and multimodal costs

Bus service costs are the single largest item of operating expenditure for Auckland Transport. Over the 10 years of this plan, the cost of bus, and ferry contract costs increase more slowly than patronage, so the proportion of costs recovered from fares is forecast to reach 50% (range 49%–52%) by 2018 and to stay at this level until 2025. These improvements to efficiency only partly offset the inevitable increases in costs as patronage grows, so operating budgets increase each year.

Bus, Ferry and Multimodal Operational activities	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Bus services and facilities	172.7	282.3	325.2	2,676.0
Ferry services and facilities	19.5	29.0	36.1	286.7
PT Ticketing, Marketing & Information services	39.9	40.1	41.6	397.8
Bus, ferry and multimodal activities total	**232.1**	**352.2**	**402.9**	**3,260.6**

Auckland Transport is responsible for maintaining and renewing:

- Six busway stations
- Bus shelters
- Park and Rides at rail, ferry and bus stations
- 21 Ferry Wharves

Costs associated with the renewal, maintenance and operation of these assets are growing as the number of facilities expands. These consequential operational costs are becoming a major factor in transport costs, as the transport system becomes more complicated.

Bus, Ferry and Multimodal Renewals	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Renewals - Bus assets	0.9	1.1	1.1	8.5
Renewals - Wharves and ferry terminals	2.3	2.4	2.5	19.4
Renewals – Multimodal	-	-	-	0.1
Renewals - Bus and Ferry	**3.2**	**3.5**	**3.6**	**28.0**

The major costs in bus, ferry and multimodal are the Otahuhu Bus Interchange and the CBD Bus Infrastructure requirements for Downtown Interchange.

Otahuhu Bus Interchange will provide the ability for passengers to make bus to rail and bus to bus transfers in a comfortable and convenient interchange. Without the interchange, it will be difficult to implement the New Network in the South.

The CBD Bus Infrastructure project (including Downtown Interchange project) aims to reduce bus congestion in the city centre. It will be designed in such as a way as to complement other activities proposed to be undertaken in the city centre such as City Rail Link and Light Rail.

Bus, ferry and multimodal Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m	Other benefits (in addition to PT benefits)
Bus Infrastructure					
Bus Stop Improvements Programme	3.7	2.3	2.3	11.4	
City Centre Bus Improvements	2.1	15.8	16.2	72.5	
Te Atatu Motorway Bus Interchange	0.5	4.7			
Bus Station Minor Capex	0.1	0.1	0.1	0.9	
Manukau Bus Interchange (Lot 59)	9.5	11.5			
Otahuhu Bus Interchange	14.4	3.8			
Bus Lane Improvement	4.0	5.6	5.8	52.9	
Northern Busway Extension New Stations				6.4	
Ferry Infrastructure					
Wharves Capex – Minor	0.6	0.6	0.6	5.2	
Multimodal Infrastructure					
AT Metro Business Technology	1.1	1.2	1.2	7.0	
AIFS Infrastructure & Equipment	1.8	1.9	4.2	28.1	
PT On Street Information & Retail Capex	1.5	1.6	1.6	9.5	
Double decker network mitigation works	6.5	6.2	6.4	7.7	

Bus, ferry and multimodal	2015/16	2016/17	2017/18	2018/19 to 2024/25	Other benefits
PT Integrated Fares	6.2				
Bus, ferry and multimodal total	**52.0**	**55.3**	**38.5**	**201.4**	

8.6 Public Transport - Value for Money

8.6.1 Public transport services

The benefits of public transport services have been assessed using the prioritisation methodology set out in Section 4.5.

- The Strategic Fit of public transport services is High because of the importance of urban public transport in contributing to the goals of the Auckland Plan and the Government Policy Statement
- Effectiveness is High because public transport services are part of an integrated plan to achieve multiple outcomes (the Regional Public Transport Plan)
- Efficiency compares the costs of public transport services against the Transport Agency's assessment of the dollar value of benefits. For public transport, there are two types of benefits:
    - benefits to users, some of whom do not have the choice of travelling by car
    - benefits to road users due to less traffic on congested roads

Bus and ferry services have High economic efficiency, but rail services are rated Medium because of their higher cost.

Bus Services	Strategic Fit	**High**	Effectiveness	**High**	Efficiency	**High**
Rail Services	Strategic Fit	**High**	Effectiveness	**High**	Efficiency	**Medium**
Ferry Services	Strategic Fit	**High**	Effectiveness	**High**	Efficiency	**High**

8.6.2 Public Transport Infrastructure

Each Public Transport infrastructure project has been separately assessed for Strategic Fit, Effectiveness and Efficiency, as set out in Section 4.5. Some general patterns are:

- As with public transport services, most public transport infrastructure projects included in the Budget have High Strategic Fit
- Effectiveness varies. Projects early in the planning stages may improve their effectiveness rating during the term of this plan as there is more time to consider options and develop a robust business case
- Efficiency is the ratio of the benefits of a project to its costs and will always vary between projects, but there are some patterns:

- Park and Ride projects in the outer reaches of the public transport network, where land costs are low and trip lengths are long, gain a "High" efficiency rating
- Bus interchange projects in the city centre are essential to the rollout of the public transport New Network, which is forecast to significantly increase bus patronage, so these projects gain a "High" efficiency rating.

8.7 Public Transport Outcomes

The table below shows the major projects in the programme and the outcomes that these improvements will bring

What gets delivered in this programme	The following items are included within the first three years of the programme: • 45 additional kms of bus lanes (including the Airport route, Ellerslie-Panmure Highway, Pakuranga Road, Ti Rakau Drive, parts of Great South Road and Great North Road, Greenlane West, Mt Eden Road, Manukau Road and Remuera Road) • Double deckers enabled on 42kms of the frequent bus network • Essential New Network infrastructure completed – interchanges at Otahuhu, Manukau, Te Atatu, Pukekohe and Silverdale • Park and Ride extensions at Silverdale and Papakura, replacement facilities at Glen Eden and Hobsonville • 600 bus stops
Outcomes from investment	• Increased public transport boardings • Substantial travel time savings for existing and new users • Successful rollout of the integrated public transport New Network – reducing duplication and increasing frequency across the network • Network efficiency and cost recovery improvements – from increased demand and peak vehicle savings due to faster and more reliable services • Increased capacity from double deckers reduces overcrowding and allows for patronage growth in high demand corridors • Improved safety and security from ongoing investment in CCTV and minor safety and security projects

The proposed performance measures for public transport are set out below, along with the targets achievable within funding constraints.

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
Prioritise rapid, high frequency public transport	Total public transport boardings (millions)	72.4	73.7	84.47	88.97	93.01	103.8
Transform and elevate customer	Public Transport punctuality (weighted average across all modes)	85.9%	New measure	92%	93%	94%	95%

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
focus and experience	Customer satisfaction index-Public Transport	81.4%	83%	83%	84%	85%	85%
Ensure a sustainable funding model	PT Farebox recovery %[1]	N/A	New Measure	46-48%	47-50%	49-52%	50%+

[1] A farebox recovery ratio measures the contribution fares make to the operating cost of providing public transport services.

9. Supporting Auckland's Growth and Intensification

Key outcomes	• Special Housing Areas and pre-existing growth areas are supported • Targeted transport funding available to ensure Housing Accord targets are met and that key growth locations are supported

The 2013 Census counted a usually resident population of 1.42 million people in the Auckland Region, a growth of over 110,000 people since 2006 - roughly the population of Tauranga in a 7-year period. Over the 10 years of this RLTP it is forecast that Auckland's population will grow by around 270,000, with a proportional (or faster) increase in jobs (17).

Auckland Council anticipates that to accommodate this growth, 109,000 new dwellings and 4.3 million square meters of business space will need to be built over the next 10 years, along with the roads and public transport services to support them.

The transport impacts of Auckland's growth are not confined to projects which are directly associated with plan changes and decisions of the Environment Court, but even by this narrow definition Auckland Transport currently has obligations to deliver 38 growth-related projects during the 10 years of this RLTP. The most significant of these projects are in Wynyard Quarter, the Northwestern Strategic Growth Area (Massey/Hobsonville/Whenuapai), Long Bay and Manukau City Centre.

Over the next 10 years new obligations will be added to this list, particularly in the Special Housing Area projects in Scotts Point, Red Hills, Wesley, Kumeu, and Hingaia. Auckland Council and Central Government have agreed to fast track development in the Special Housing Areas, to address the shortage of affordable homes in Auckland. Better transport connections to these areas are an essential component of the overall Housing Accord.

In addition to the Special Housing Areas, transport improvements are also needed to support the development and intensification of Auckland's spatial priority areas as shown in Figure 24.

The transport impacts of growth extend beyond the growth areas themselves, as more people create demand for more road space and more public transport right across Auckland. While the transport needs of growth areas are a current focus, the majority of the growth in Auckland's population will continue to be in existing built up areas.

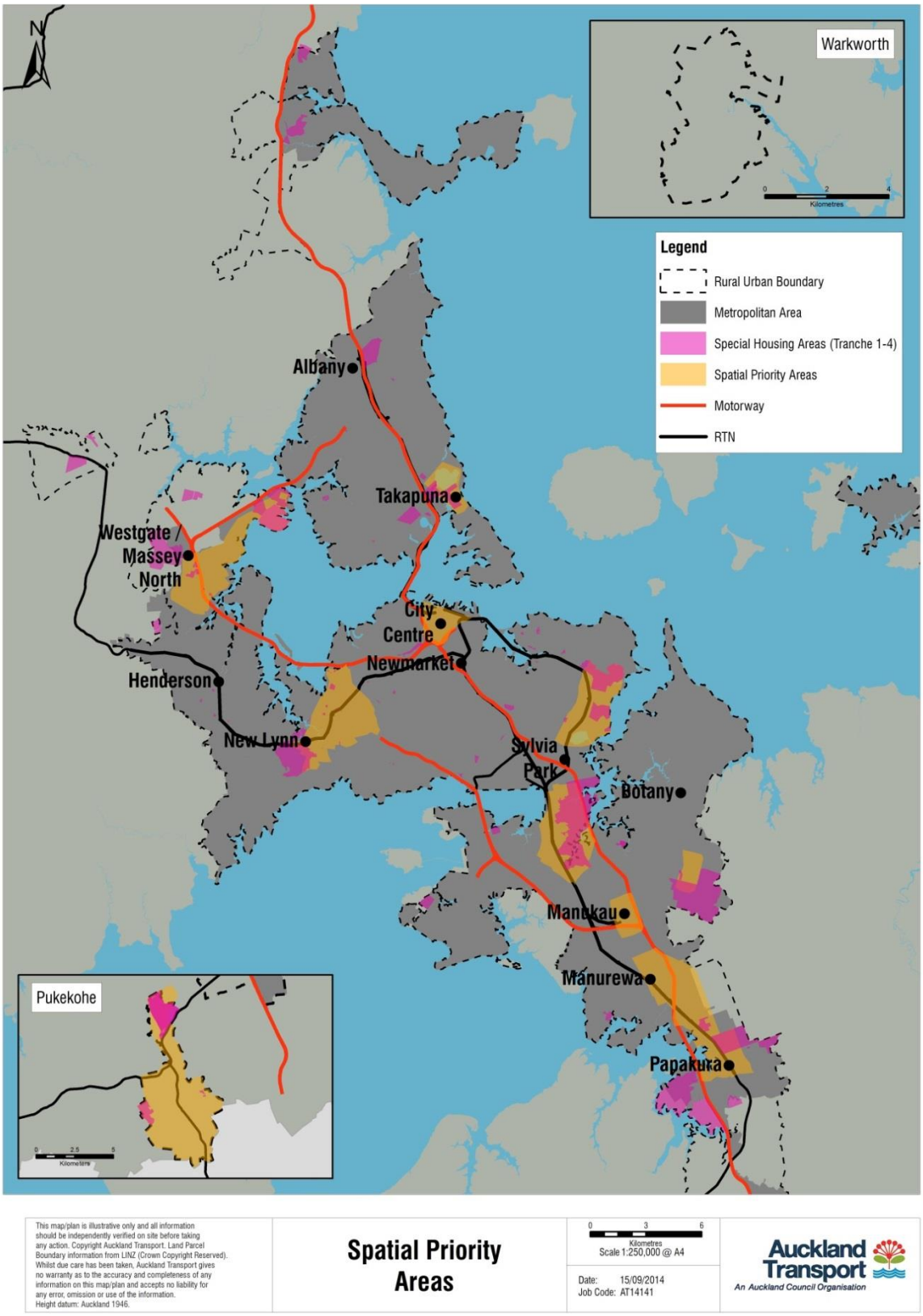
Auckland Transport and the Transport Agency are continuously upgrading State Highways, local roads and public transport networks to cope with continually increasing demand. Without these upgrades, levels of service will get progressively worse as Auckland's population grows.

This is especially true if there is no improvement in public transport. While Auckland has, in the Unitary Plan, a strategy to accommodate the population of another Tauranga every seven years, providing for the number of cars in Tauranga to be added to the Auckland vehicle fleet every seven years is clearly not an option.

While the remainder of this section focusses on specific Auckland Transport growth related projects, the Transport Agency's State Highway projects play a fundamental role in supporting Auckland's growth, some examples include:

- SH1 Northern Corridor Improvements - covers the area of SH18 between Albany Highway and Constellation Interchange, and SH1 between Upper Harbour Highway and Greville Rd. The proposed busway component of the works extends further north on SH1 to Albany. This project is intended to support both the completion of the Western Ring Route, and future land use growth in North and West Auckland including Albany, Massey North, Westgate and Hobsonville.
- SH1 Southern Corridor Improvements - covers the area of SH1 between SH20 and the Papakura, including improvements to the Takanini Interchange. In addition to improving journey time reliability and traffic flows, this project will support Auckland's current and future growth in the Takanini, Hingaia, Pukekohe and Paerata areas.
- East West Connections - the joint Auckland Transport/Transport Agency initiative aimed at supporting the growing movement of people and goods in the Onehunga, Penrose, Mt Wellington, Mangere, Otahuhu and East Tamaki areas

Figure 24: Auckland Spatial Priorities and Special Housing Areas



9.1Growth Projects

9.1.1 Growth Project Costs

The following projects in the programme relate to known growth areas.

Transport Improvements - Growth Capital Expenditure	2015/16 $m, inflated	2016/17	2017/18	2018/19 to 2024/25	Other benefits (in addition to growth benefits)
Brigham Creek Road Corridor Improvements				10.7	Active
Huapai North Transport Mitigation (PC 127)				2.5	
Improvements Complementing Developments	0.8	0.8	0.9	12.8	
Long Bay Glenvar Ridge Rd	3.1	2.7	2.6		Active
Mill Road (Northern)	3.1	3.2	3.2	123.9	PT, Active
Murphys Rd Upgrade Bridge Improvements (Plan Change 20)		4.4	4.5		Active
Northwest Transformation (NORSGA PC14 Hobsonville Village)				22.8	Active
Northwest Transformation (NORSGA PC 15 Massey North Town Centre)	17.1	14.0	6.2	7.1	PT, Active
Ormiston Town Centre Main Street Link	1.5	5.5			
PC 12 Drury South Transport Implementation	3.1	25.8	15.1	22.6	
Penihana North Transport Mitigation (PC 32)				0.4	Active
Transport Improvements - Growth	**28.7**	**56.5**	**32.5**	**202.9**	

Auckland Council has also decided to establish a $398 million, ten year, Local Residential Growth Fund which provides a ring-fenced budget for transport related projects that enable growth and development in Auckland. The fund, which equates to $35 million per annum (plus inflation) for each of the next ten years, is intended to provide Auckland Transport with the ability to respond quickly to evolving growth and development needs in Auckland. This is particularly relevant for Special Housing Areas (SHAs) where developments are expected to be fast tracked.

The criteria for prioritising projects for the Local Residential Growth fund has yet to be finalised, however the following factors will be taken into account.

Local Residential Growth Fund - Potential Eligibility Criteria

- Delivers housing outcomes (SHAs or already approved growth location)
- Aligns with the availability of other infrastructure (water, wastewater etc.)
- Project should be approximately 75% growth related / funded
- For locations where deliverability of subsequent housing has been confirmed (e.g. commitment from developer)
- The need for infrastructure is evidence based and documented – e.g. as identified as required in a Resource Management Act Plan Change, resource consent, or an integrated transport assessment.

Note the fund is

- not intended to replace developer local infrastructure obligations unless by special agreement and where costs are fully recoverable
- intended to facilitate growth where there are multiple landowners involved

The budget will be used to facilitate the following types of projects:

- Growth based initiatives in Special Housing Areas and other residential growth locations (e.g. Flat Bush, New Lynn, Kumeu/Huapai, Long Bay, Albany North)
- Local scale initiatives (e.g. new local roads and intersection upgrades – not major regional improvements such as Mill Road)
- Initiatives where developers have demonstrated their ability to deliver growth within agreed timeframes
- Road, walking and cycling, and public transport improvements are all eligible for the fund (e.g. Paerata Rail Station).

The fund will predominantly be paid for through local development contributions.

Transport Improvements - Growth Capital Expenditure	2015/16 $m, inflated	2016/17	2017/18	2018/19 to 2024/25	Other benefits (in addition to growth benefits)
Local Residential Growth Fund	**35.0**	**35.9**	**36.8**	**290.6**	

The following are a selection of example projects that are being considered for delivery under the Local Residential Growth Fund:

- Albany – Medallion Drive extension, Gills to Oteha Valley connection
- Long Bay Southern Corridor improvements
- Paerata Rail Station
- Flat Bush – Chapel Road, Flat Bush School Road East, Thomas Road, McQuoids Road
- New Lynn – Crown Lynn Regeneration – new public roads
- Hingaia Peninsula roading improvements
- Takanini growth area roading improvements
- Station / Tapu / SH16 intersection improvements in Kumeu / Huapai
- Whitford-Maraetai Road / Jack Lachlan intersection improvements in
- New and improved local roads at Whenuapai, Scotts Point and Hobsonville

9.1.2 Growth Projects - Value for Money

Generally, growth projects perform poorly in a value for money assessment relative to projects which solve existing problems. If transport infrastructure is provided before new developments are built, then in comparison to the existing urban area there are no current issues to resolve. This needs to be balanced by considering other factors including:

- The extra costs and difficulties of retro-fitting transport improvements once an area is already built up
- The opportunity to provide attractive transport options from the start, before the habit of daily car travel becomes part of people's lifestyles
- Legal obligations arising from Environment Court decisions or Plan Changes
- Obligations placed on Auckland Transport through Development Contributions paid to Auckland Council.

The table below shows the major projects in the programme and the outcomes that these improvements will bring

What gets delivered in this programme	• NORSGA, Flat Bush and Long Bay Glenvar Ridge Road projects delivered by 2019 • Mill Road and other regional arterial improvements included to support growth areas • A Local Residential Growth fund is established to provide dedicated funding to support pre-existing regional growth locations and the successful delivery of Special Housing Areas
Outcomes from investment	• Special Housing Areas and pre-existing growth areas are supported • Targeted transport funding available to ensure Housing Accord targets are met and that key growth locations are supported

10. Walking, Cycling and Travel Demand Management

Key outcomes	• Increased level of cycling • Safety benefits • Auckland leverages the Urban Cycleway Fund • Health and environmental benefits • Improved links to public transport

Walking, cycling and travel demand management are expected to become an increasing focus over the coming years, for the following reasons:

- More intense urban developments, so more people live within walking and cycling distance of more destinations
- Population growth, a renewed interest in city living and Auckland's ageing population. Good footpaths are useful for people of all ages, but for children, older adults, and those with disabilities, they are essential
- A decrease in per capita car travel
- Improvements to public transport leading to more focus on the "first and last leg" of public transport journeys
- Growing popularity of cycling for recreation and transport and increased demand for safe cycling facilities
- Growing interest in health, community and social benefits from active transport in a world-class city
- Constrained funding and limited opportunities to expand road capacity leading to an increasing focus on managing demand and optimising the efficiency of the transport network.

10.1 Place

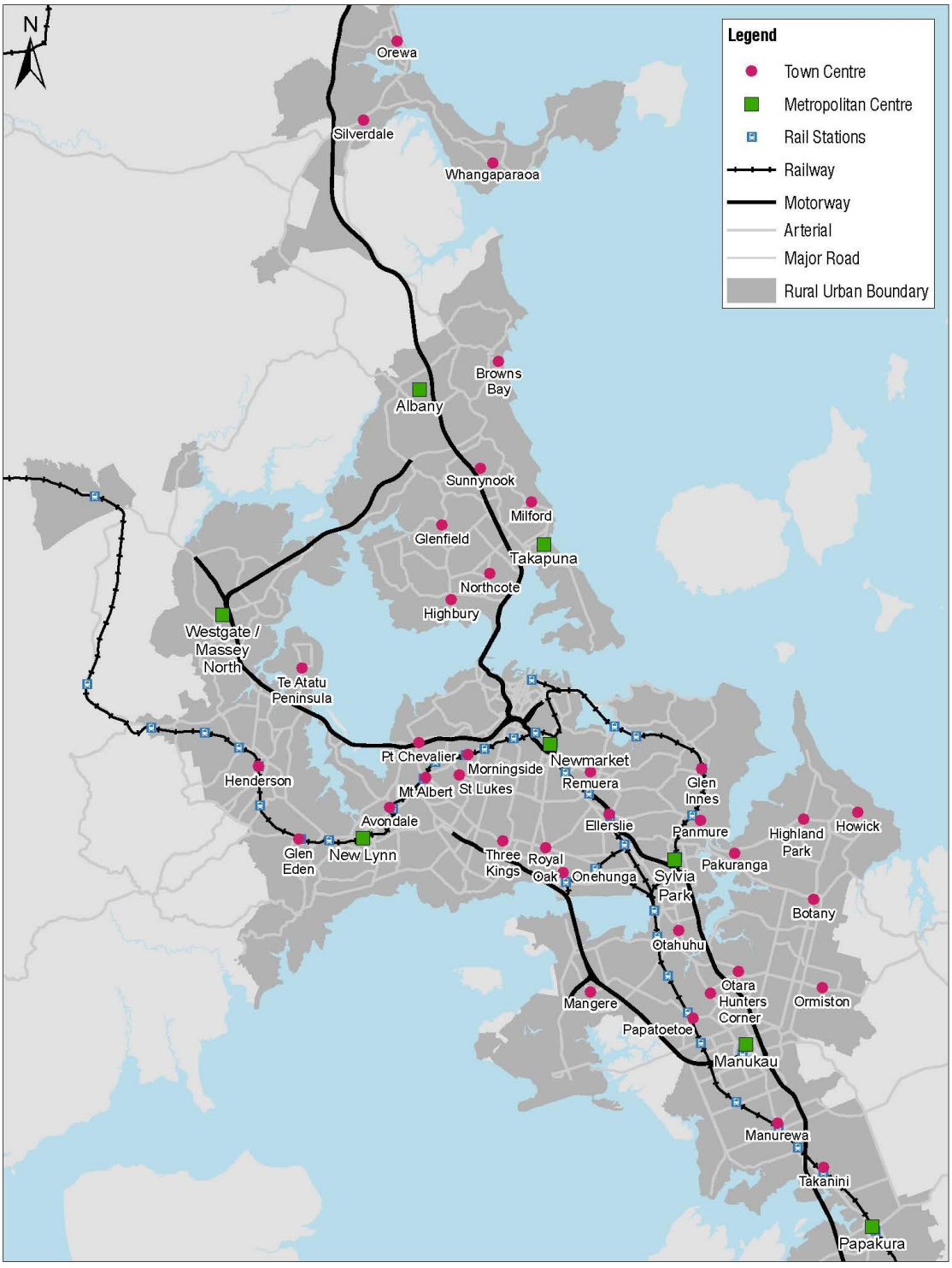
Roads are not just for travelling along; adjacent to roads are places where people live, work, study and gather. Our arterial roads tend to go through the region's historic town centres. Consequently it is important to consider the places along the road as opposed to just the movement function. Auckland Transport's role in getting Auckland moving operates within important constraints which protect the places we value. Over time, more people are choosing to live in the Auckland city centre, metropolitan centres and in town centres, where it is easy to shop, work and socialise close to home.

Good planning for walking and cycling is inseparable from good land use planning - distances seem much shorter if the journey is safe and interesting. Auckland Transport's role, working with Auckland Council, Local Boards, and other Council-Controlled Organisations, is to maintain and improve streetscapes so more people will naturally walk and cycle for short trips.

There will always be a tension between providing attractive, walkable, bikeable streetscapes which support a local sense of place and community, and moving more vehicles along a constricted road corridor. Auckland Transport is aware of this tension and considers Place when designing improvements to arterial roads. In a town centre, the Place values will be high and any changes to the road will need to put the highest priority on walking, cycling, safety and liveability. On a purpose-built arterial road, buildings are set well back, access is restricted and the movement of vehicles takes priority.

The pattern of Auckland's development means that many of our busiest roads also pass through our main town centres, as shown in Figure 25. There are no easy answers to this issue, but having clearly identified and prioritised place values enables the inevitable trade-offs to be made in a clear and transparent way.

Figure 25: Major centres (high place values) and major roads



Town Centres with Major Road Network

0 2 4 Kilometres
Scale 1:220,000 @ A4

Date: 23/09/2014
Job Code: AT14141

Auckland Transport
An Auckland Council Organisation

10.2 Walking

In terms of trip numbers, walking comes a close second to driving, with over half a million walk-only trips each day on Auckland's 6,860km of footpaths. If trips on public transport and by car which begin and/or end with a walk are included, walking is the most common way to travel. Walking is great for communities, for health and for the environment, and frees up space on the transport network for people who need to travel longer distances.

Walking to school is a great start to a lifetime of walking. Most primary school children want to walk to school; it is their parents who choose to drive (18). Auckland Transport's TravelWise Schools programme now works with 404 schools to make it easier and safer to walk, bike or bus to school. In the nine years that the TravelWise programme has been operating, Auckland's TravelWise Schools have achieved a 58% reduction in injury crashes involving child pedestrians and cyclists in their local areas. There are also 12,736 fewer car trips each morning peak as a result of the programme. Taking these trips off the network makes a huge difference to traffic congestion, because so many of Auckland's schools are located on busy, congested roads.

The TravelWise schools programme is supported by the Safety around Schools capital project, which is included in Chapter 11 - Safety.

10.3 Cycling

Cycling in Auckland is on the increase (19), not just as an increasingly popular leisure activity, but for a variety of transport-related trips. Surveys indicate a sizeable latent demand for safe cycling facilities. The number of people cycling is growing fastest where new facilities are provided as part of the Regional Cycle Network, proving that the "build it and they will come" approach is working. Currently in the Auckland region cycling as a transport mode generates a small proportion of the total number of trips. About one percent of journeys to work are by cycle, however this does not represent cycling potential, for example, in some European cities about a third of trips are by cycle.

The Government has recognised the growing demand for cycling as a transport choice and has announced a $100 million fund to be used on new cycleways and walkways across the country. Auckland Transport and the Transport Agency have submitted packages to Government for funding as part of the Urban Cycleway Fund.

To keep up with this trend and to spur further growth in cycling, Auckland Transport plans to accelerate the construction of the Auckland Cycle Network taking advantage of the Urban Cycleway Fund. The Auckland Cycle Network comprises more than 1,000km of connected on and off road cycle facilities that provide a safe environment to accommodate likely latent demand and encourage more growth in cycling. The network is shown in Figure 26 and has three levels:

- Cycle metros are separate facilities on main routes, for example the North Western Cycleway
- Cycle connectors may be on-road cycle lanes, or off-road shared paths, designed to provide safe and direct routes for cyclists
- Cycle feeders link schools, parks and community destinations to each other and to the network.

Figure 27 shows the priority projects for the next three years.

The target set in the Auckland Plan is to complete 70% of the Auckland Cycle Network (Metros and Connectors) by 2022. This RLTP contains a programme of dedicated cycle projects and of cycling links delivered through road construction and road maintenance projects. However, the proposed investment package will not complete 70% of the Auckland Cycle network until after 2040.

Metro and Connector links provide the backbone of the Auckland Cycle Network and can have a dramatic impact on ridership. These routes will deliver a high level of service for cyclists and link key destinations in Auckland. The delivery of the Auckland Cycle Network Metro and Connector links will be prioritised to those areas most likely to result in the highest increase in cycle numbers, in and around the City Centre and around public transport hubs.

The other essential part of a comprehensive cycle network is the feeder routes or Greenways along quiet streets, through parks and along streams, which encourage people to walk or cycle for short trips around their local community. Off-road facilities are the natural place to learn to cycle and encourage parents to let their children travel independently. Cycling among young people has declined over past decades - in 1990 over a quarter of intermediate and secondary school aged children cycled regularly (20), but today almost half (49%) of Auckland's intermediate and secondary schools have no students arriving to school by cycle. In contrast, schools in areas with good offroad cycle networks, including Belmont, Okiwi, Hobsonville Point and Silverdale, recorded over 20% of the school roll cycling to school (21).

New cycleways are planned to complement existing facilities and to form a connected network. The Waterview Shared Path is one of these projects; it links into existing infrastructure and has the potential to lead to a significant increase in cycling. The cycle network will also improve connections to public transport interchanges, and priority areas for cycle parking are also identified as part of the network.

Cycling numbers are growing as safe and connected facilities are built that accommodate a range of ages and abilities. Cycle training programmes and awareness campaigns, aimed at drivers as well as cyclists, are an essential part of the package of cycling improvements.

Figure 26: Auckland Cycle Network

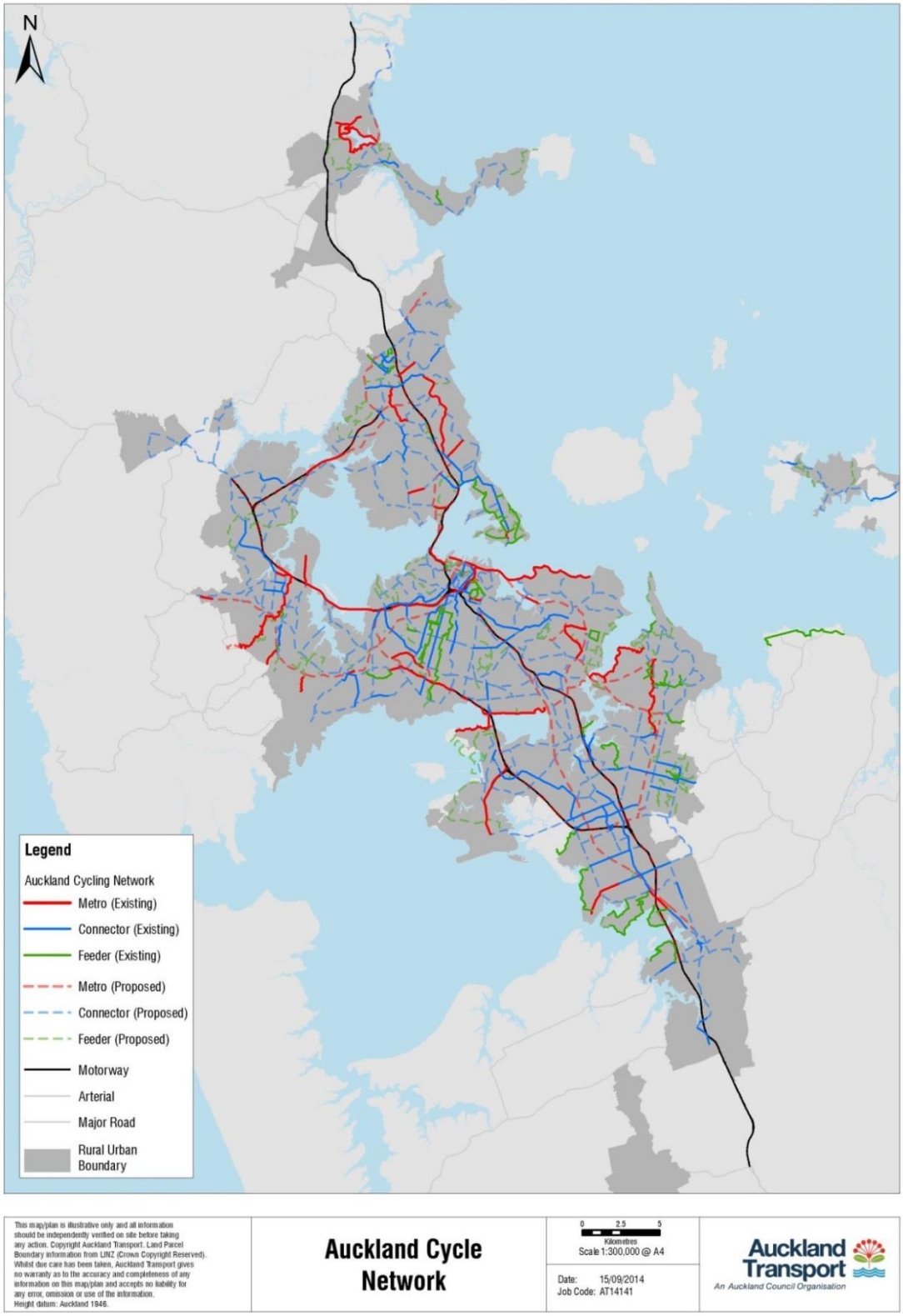
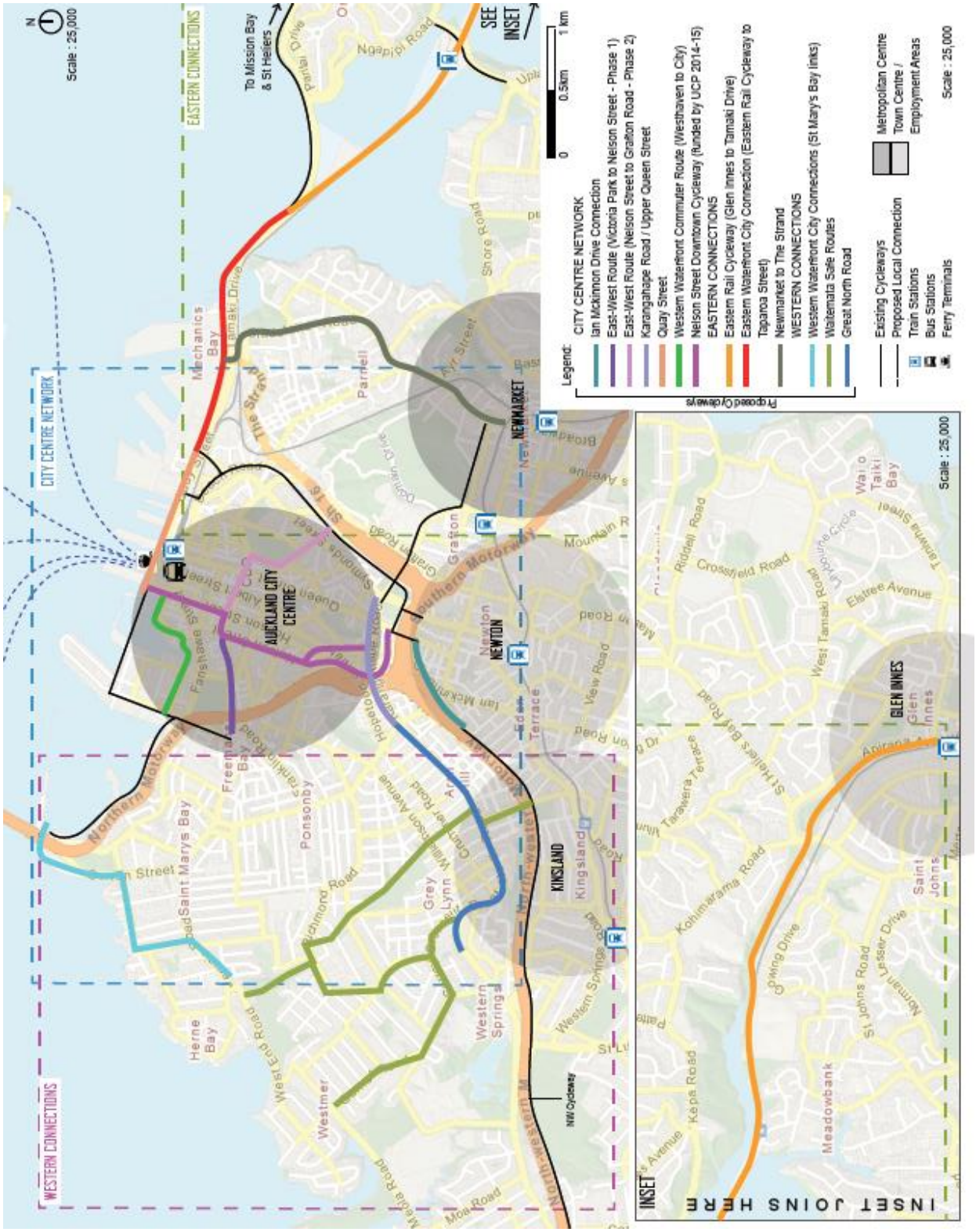


Figure 27: Progress on Auckland Cycle Network 2015–2018



10.4 Travel Demand Management

Travel demand management initiatives are delivered to commuters through travel planning with businesses, business associations and tertiary institutes and personalised journey planning programmes with individual commuters. In additional travel demand programmes are linked to maximising the benefits of new infrastructure and services and improving accessibility to key employment destinations, town centres and public transport.

Auckland Transport manages the Commute programme, which supports Auckland businesses, business areas and tertiary institutes to encourage commuting and business travel by means other than the single occupant vehicle. Commute projects are very cost effective, delivering over $8.60 in congestion benefits for every dollar spent, and taking 3,800 cars off the road each morning peak.

Personalised journey planning projects have been a recent innovation to the programme and have linked to public transport service and infrastructure improvements but also support walking, cycling and carpooling. Around half of participants who completed a Personalised Journey Plan programme have made a shift from single driver private car use to public transport, carpooling and active modes for their regular commuting journey.

Through the Travelwise programme Auckland Transport has built strong relationships with 408 schools and their surrounding communities, contributing to the majority of all reduced single occupant vehicle trips across the region. The programme supports schools to improve safety in their local area and influence increased walking and cycling to and from school. Road safety education is offered through the programme and assists school age children and young people to prepare for different stages of journey planning throughout their lives. By fostering student leadership and a whole school approach, the programme increases community capacity for making safe and sustainable transport choices.

10.5 Walking, Cycling and TDM costs

10.5.1 Walking, cycling and TDM

Auckland's 6,959 km of footpaths require regular maintenance and periodic renewals in order to continue to link local communities, provide a safe and attractive option for short trips, and to add to the value of adjacent property. Auckland Transport uses its Asset Management Planning model to set the level of operational, maintenance and renewal expenditure at a level that minimises whole-of-life costs, while also taking into account required service levels. This means that very little maintenance or renewals expenditure can be treated as discretionary, as any savings now will add to costs later.

Other elements of attractive streetscapes, besides footpaths, also need a high level of maintenance. The Transport Agency does not currently subsidise the maintenance of footpaths or "amenity" features such as footpath lighting (as distinct from streetlights), amenity planting or street furniture. Yet walking trips have a vital role in the wider transport network.

Auckland Transport is also active in promoting walking and cycling for transport. Key activities delivered through the operational budgets below are:

- The Travel Demand Management programme including TravelWise Schools and the Workplace Commute programmes
- Planning for the Auckland Cycle Network and monitoring implementation and uptake
- Progressing walk and cycle infrastructure projects through the Investigation phase
- Delivering Walking and Cycling road safety activities
- Delivering cycle training to over 1,000 people each year and working with cyclist groups to promote cycling for fun and transport.

Walking, Cycling and TDM Operating Cost	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Footpath Maintenance	3.1	3.1	3.1	21.8
Travel Demand Management	2.2	2.2	2.2	15.7
Walking, cycling and TDM total	**5.4**	**5.4**	**5.4**	**37.5**

Auckland Transport has moved to an integrated asset management approach in which levels of renewals for footpaths are set based on where people walk most often, with the priority given to the city centre, town centres and transport hubs, rather than according to legacy council areas. However the move to regionally consistent levels of service has highlighted some areas of past underinvestment, and renewals budgets need to increase over the decade to avoid much higher asset replacement costs and ensure levels of service are met.

Walking, Cycling and TDM Renewals	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Renewals - Footpaths	**14.5**	**16.7**	**17.5**	**135.1**

The proposed transport programme provides for over $100 million to be spent on new cycleways and walkways over the next three years. Including the Waterview Shared Path, Karangahape Road, Quay Street, Great North Road and Ian Mackinnon Drive cycle facilities.

It is expected that the Government’s recently announced Urban Cycleways Fund will provide $25 million of the funding for these cycleways over the first three years of the RLTP 2015–25. The funding proportion for this fund is one-third local Council share

investment, one-third Transport Agency funding, and one-third Urban Cycleways Fund.

Walking, Cycling and TDM Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Local Board Initiatives	10.3	10.5	10.8	85.9
Walking and Cycling Programme	24.6	35.8	57.6	74.7
Waterview Shared Path	3.6	1.8		
Walking, Cycling and TDM Total*	**38.5**	**48.2**	**68.5**	**160.5**

*Excludes improvements delivered as part of wider road or public transport projects

10.5.2 Walking and Cycling - Transport Agency

The Transport Agency has constructed some of Auckland's most popular cycle links including the North Western cycleway. In the 10 years of this plan, the Transport Agency is proposing to build a number of priority links in the Auckland Cycle Network.

The Old Mangere Bridge scheme will replace the current structure which has been permitted for use solely by pedestrian and cyclists since the first Motorway Crossing of the Manukau Harbour was completed in 1983. The new structure will be designed for the exclusive use of walkers and cyclists supporting the current use of the route.

Several of the Transport Agency's major roading projects include a walking and cycling component. For example, the Western Ring Route includes improving and extending the NorthWestern Cycleway. The Northern and Southern Cycleway projects are closely linked to the improvements described in the State Highway chapter.

In addition the Transport Agency will be connecting to the privately funded Skypath which crosses the Harbour Bridge, with Seapath which will provide access to the city from Takapuna and the North Shore suburbs.

Walking and Cycling Capital Expenditure – Transport Agency	2015/16 $m, inflated	2016/17	2017/18	2018/19 to 2020/21	2021/22 to 2024/25 (indicative)
Eastern Rail Cycleway (Glen Innes to Tamaki Drive)	5.1	5.6			
Grafton Gully Connection	1.1				
Nelson Street Downtown Cycleway	5.5				
Northern Cycleway	0.4	0.6	3.6	3.6	
Old Mangere Bridge Replacement	9.8	4.0			
SeaPath	11.1	10.5			
SH20B (Puhinui Road) Cycleway	0.5				
Southern Cycleway	0.4	0.6	3.6	3.6	
Walking and Cycling – Transport Agency	**33.9**	**11.3**	**7.2**	**7.2**	**50.8**

10.5.3 Walking and Cycling - Value for Money

Auckland Transport is confident that investments in footpaths, streetscapes, cycleways and the promotion of walking and cycling are targeted to enhance delivery of the Auckland Plan. Expenditure programmes have been aligned to levels of service defined through the Integrated Transport Programme, and detailed Asset Management Planning links activities and costs to this level of service framework. Transport modelling has confirmed the significant transport benefits possible, for limited cost, through shifting even a small proportion of short trips from car to walking or cycling.

Recent changes to Transport Agency policy have made evaluation procedures more consistent across all transport modes, and this has meant that cycling projects score much better on a value for money assessment than under the previous procedures. That said, it remains very difficult to assess some categories of project, especially those which improve walking environments (such as pram crossings) and the Local Board projects which are not subject to an Auckland Transport evaluation.

The benefits of road network management and optimisation have been assessed using the prioritisation methodology set out in Section 4.5.

- The Strategic Fit, which is High because of the priority given to walking and cycling in the Auckland Plan and the Government Policy Statement
- Effectiveness, High for most of the specific projects assessed
- Efficiency, which compares the costs against the Transport Agency's assessment of the dollar value of benefits. This is High on average for all of the individual projects assessed within the New Cycleways and Walkways work program, as detailed in Section 16.2 and is also High for the Road safety improvements around schools.

New cycleways and walkways	Strategic Fit	**High**	Effectiveness	**High**	Efficiency	**High**

10.6 Walking and Cycling Outcomes

The table below shows the major projects in the programme and the outcomes that these improvements will bring

What gets delivered in this programme	The following items are included within the programme: • 52.4 km of the Auckland Cycle Network • A $4 million Auckland Transport contribution towards Local Board walking and cycling initiatives (including greenways) • $6 million for new footpaths around the region
Outcomes from investment	• Increased level of cycling • Safety benefits • Auckland leverages the Urban Cycleway Fund • Health and environmental benefits • Improved links to public transport

Key performance indicators for walking, cycling and travel demand management are set out below, along with the targets achievable for the level of funding proposed:

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
Transform and elevate customer focus and experience	Customer satisfaction - Footpaths	63%	65%	65%	65%	65%	65%
Build network optimisation and resilience	Annual number of cycling trips in designated areas in Auckland: - During Morning peak - All day	141,897 (morning peak)	142,200 (AM peak) 958,000 (all day)	1.1m (all day)	1.2m (all day)	1.8m (all day)	2.5m p.a. – 4.3m (all day)
	Percentage of footpaths in acceptable condition [4]	99%	New Measure	99%	99%	99%	98%
	Percentage of customer service requests relating to footpaths which receive a response within specified timeframes [5].	85%	New Measure	85%	85%	85%	85%
	New cycle ways added to regional cycle network (km)	N/A	New Measure	Complete additional 52 km over the 3 year period			
Develop creative, adaptive, innovative implementation	No. of car trips avoided through travel planning initiatives	16,587	16,700	17,500	18,400	20,240	22,264

[4] As defined in Auckland Transport's Asset Management Plans
[5] As defined in Auckland Transport's customer service standards

11. Safety

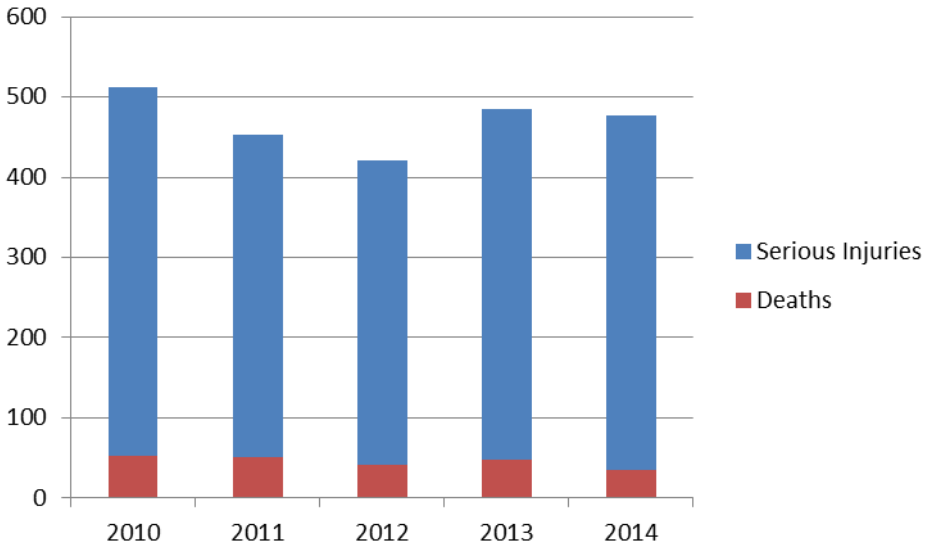
Key outcomes	• An annual 2.6% reduction in local road Deaths and Serious Injuries. • Increased safe walking and cycling trips in high-risk Urban Central and South schools. • Progress on 25 of the national high-risk intersections and 25 high-risk roads.

Interacting with Auckland's transport system is one of the riskiest daily activities that Aucklanders engage in.

The Auckland transport network is a complex and dynamic 24 hour system providing Aucklanders with a range of transport choices.

Safety is one of the components of the transport system that can significantly drift into failure if road design, regulation, education and enforcement do not keep pace with constantly changing travel patterns. Unfortunately this appears to be the case in Auckland, where the trend of decreasing road trauma from 2009–2012 suddenly reversed in 2013, when 485 people were killed or seriously injured on Auckland's roads. In 2014, road trauma reduced slightly with 477 people killed or seriously injured, but this remains higher than levels of road trauma in 2011 and 2012 (6).

Figure 28: Deaths and Serious Injuries on Auckland Roads 2010-2014



Even more concerning, the increase in serious injuries was entirely on Auckland local roads (not state highways) and was focused in the Urban Central and Urban South areas, particularly amongst pedestrians. There is now a five year upward trend in pedestrian, cyclists and motorcycle deaths and serious injuries across the region. This runs directly counter to the aspirations in the Auckland Plan to create world class urban environments, and to significantly increase walking and cycling to improve health outcomes and the overall functioning of the transport network.

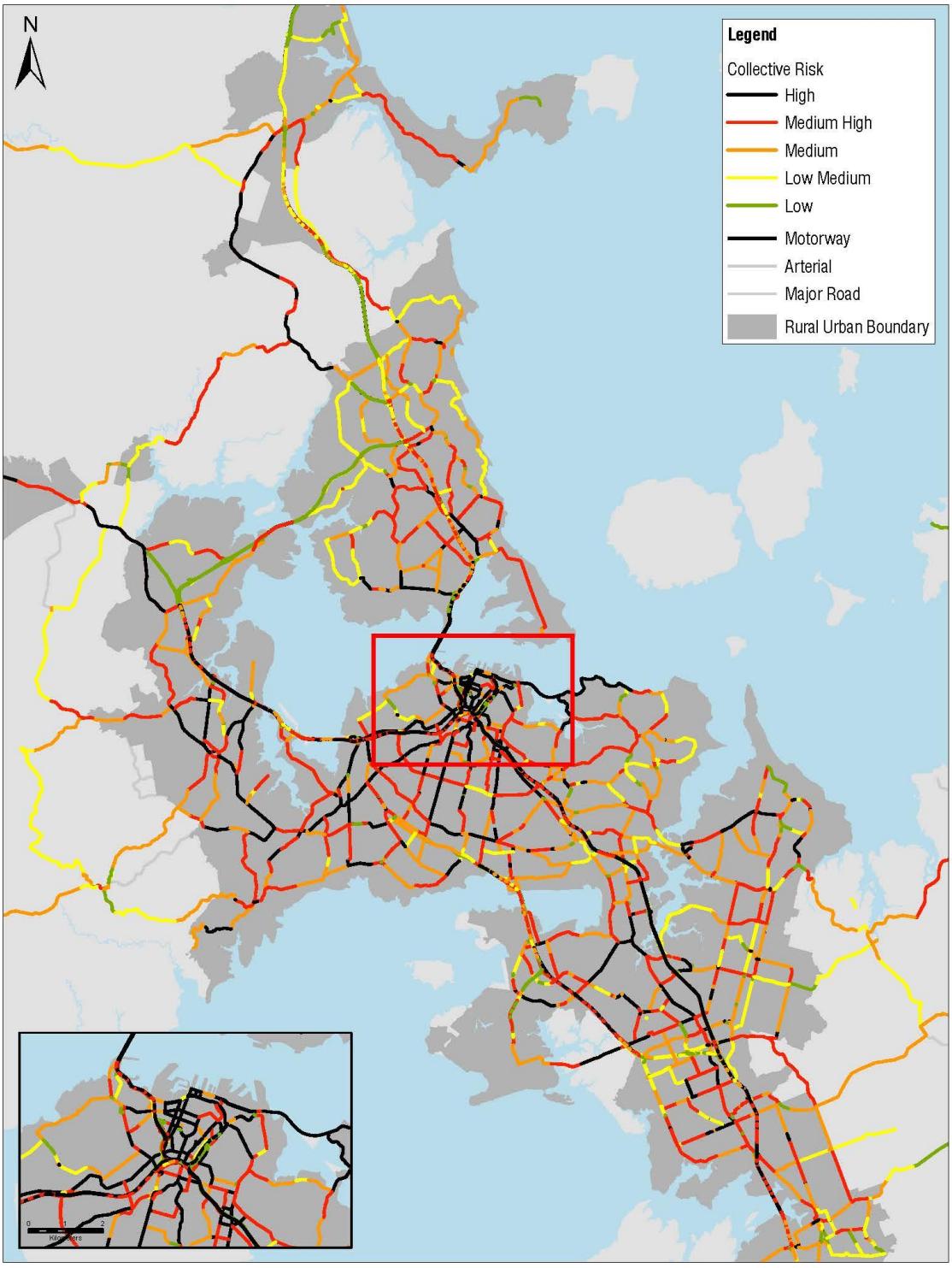
Auckland Transport, the Transport Agency and NZ Police face a significant challenge to learn from recent trends and to take action to return to the long term trend of reducing road trauma, especially for vulnerable road users.

The strategy to improve road safety outcomes is outlined in the Safe System approach. This new approach represents a significant shift away from the historical notion of "blaming the road user" towards a growing responsibility for planners, designers and engineers to design and operate a transport system that does not result in road users being killed or seriously injured if they make a mistake.

The number and seriousness of crashes on roads in the Auckland region, per km, is shown in Figure 29. Auckland's motorways stand out as high risk, but given that around a third of all vehicle travel is on motorways, the relative risk is low. Arterial roads, especially those in and close to the city centre, stand out as the location of much of Auckland's road trauma.

Auckland also faces significant challenges in enhancing safety at pedestrian and vehicle level crossings, in particular at crossings on the electrified network between Swanson and Papakura. Significant increases in rail service frequencies mean that level crossing barriers will be down for longer periods of time, increasing delays to vehicles, pedestrian and cyclists. At the same time, the introduction of new electric trains which are much quieter than the existing diesels means that level crossing users may be much less aware of an approaching train. Electrification of the rail network means that much greater care is needed when crossing the rail network or when in close proximity to the rail network and overhead lines.

Figure 29: Auckland Roads by risk category, based on crashes per km



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Road Safety Network

0 2 4
Kilometres
Scale 1:220,000 @ A4

Date: 29/09/2014
Job Code: AT14141

Auckland Transport
An Auckland Council Organisation

11.1 Roles and responsibilities

The Ministry of Transport developed the Safer Journeys Strategy in 2010 and continues to guide and monitor progress towards its vision of a safe road system increasingly free from deaths and serious injuries, through:

- Safe roads and roadsides
- Safe speeds
- Safe road use
- Safe vehicles (22).

Auckland Transport's role in creating a more forgiving transport environment involves Transport Planning, Infrastructure Design, Asset Management, Road Corridor Operations and Maintenance, and Public Transport activities. These departments work closely with NZ Police, NZ Transport Agency, Road User groups and communities to deliver road environments, speeds, and vehicles that reduce the risk of exposure to death or serious injury when crashes occur and to influence the behaviour of road users to contribute to a safe system. Prominent safety engineering programmes include Crash Reduction Studies, Safety Around Schools, Regional Safety Projects (High-risk Intersections and Roads), Minor Safety Improvements, Speed Management and Road Death Investigations.

Auckland Transport convenes RoadSafe Auckland with NZ Police and the Transport Agency, which is responsible for developing Road Safety Action Plans for Auckland North, West, Central and South.

Auckland Transport also provides an educational function through Road Safety Promotion, targeting Safer Journeys high risk themes such as alcohol, speed, intersections, young drivers and vulnerable road users (cycling, motorcycling and pedestrians). While this education supports some NZ Police activities region wide, Auckland Transport's growing focus is on targeting high risk communities in conjunction with other RoadSafe Auckland partners. The Travelwise programme also supports 408 schools to improve safety in their local area and influence increased walking and cycling to and from school.

The **Transport Agency** is represented on RoadSafe Auckland and has a similar role to Auckland Transport, but in relation to State Highways nationally.

The **NZ Police** are key partners in Road Safety Action Plans. The Police role is unique as only the Police have an enforcement mandate. Police priorities are targeted at Safer Journeys priorities including Speed, Alcohol and Drug Affected Driving, Motorcycle Safety, Young Drivers, and High Risk Drivers where enforcing the law saves lives.

The **Auckland Transport Operations Centre** (Smales Farm) involving Auckland Transport, the Transport Agency and the NZ Police, is responsible for responding quickly to incidents on the road network and for improving personal safety through its network of CCTV monitors. The **Auckland Transport Operations Centre** (Central)

has a similar role in relation to incident management and personal security on the public transport network.

11.2 Safety Costs

Safety is integral to all of Auckland Transport's activities, however relatively few budgets are dedicated solely to safety. The costs set out below relate only to those investments where safety is the only or overriding factor. A significant component of other Roads costs (maintenance, local road improvements) also relate to safety. Other Auckland Transport activities are directly dependant on safety for their outcomes such as increased Walking and Cycling activity, reduced congestion around schools and town centres, and increased public transport use.

Safety Operating Cost	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Community Transport – Road Safety Total	**6.9**	**6.9**	**6.9**	**48.1**

Safety Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Red Light Cameras New	0.1	0.1	0.1	1.0
Regional Safety Programme	2.6	2.1	1.5	
Safety and Minor Improvements	13.7	14.1	14.5	104.7
Safety Around Schools	6.2	6.3	6.5	6.3
Safety Total	**22.6**	**22.6**	**22.6**	**112.0**

11.3 Safety outcomes

The table below shows the major projects in the programme and the outcomes that these improvements will bring

What gets delivered in this programme	• Annually over the 2015/16 to 2017/18: 106 minor safety improvement projects, three high-risk intersection or high-risk road improvements, 30 fatal crash investigations, 35 speed management projects, 8 crash reduction studies and 18 safer communities school projects.
Outcomes from investment	• An annual 2.6% reduction in local road Deaths and Serious Injuries (DSI) for the three year 2015-18 period, providing the progress necessary to achieve both the Auckland Plan 2020 (410 DSI) and 2014/2017 Statement of Intent local road safety targets. • The safer communities schools initiative will contribute to increased safe walking and cycling trips in high-risk Urban Central and South schools, helping to achieve the Auckland Transport 2014/17 SOI walking & cycling target. • Progress will be made on Auckland's high-risk intersections and high-risk roads. • Statutory obligations for fatal crash investigations will be met. Customer and NZ Police safety requests will also be met. • Speed management changes will meet existing requirements and new national speed management regulations introduced from 2018/19 onwards.

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
Transform and elevate customer focus and experience	Customer satisfaction - Road Safety	63%	New Measure	60%	60-65%	60-65%	60-65%

12. Parking and Enforcement

There are over a million registered vehicles in Auckland, and each vehicle takes up space when it is parked at home, and at its destination, meaning that parking is an integral part of the transport network. While many road users are currently able to park without direct payment, there is no such thing as a "free" carpark - parking consumes land and other resources and has wider impacts on the transport network and on the city as a whole.

Auckland Transport allows parking, without charge, on most local roads, however there is no ‘right’ to park on the road. As demand for parking exceeds the supply of road space, it becomes increasingly important to set priorities and ensure the best use of the limited resource available. Paid parking, off-street parking (whether provided by Auckland Transport or by private operators) and improved public transport, walking and cycling all have a role to play where parking demand exceeds supply.

Auckland Transport has recently adopted the Auckland Transport Parking Strategy (13) which provides the guiding principles and policies for the management and supply of on-street and Auckland Transport-controlled off-street parking in Auckland, including Park and Ride facilities.

The Auckland Transport directly manages:

- 14 multi-storey car park buildings
- 933 on-street pay-and-display machines
- 171 off-street car park sites.

Auckland Transport's team of parking wardens enforces time restrictions for on-road parking and no-parking areas, as well as other safety regulations including vehicle warrants and registration. This is a physically demanding job, walking long distances each day and dealing with customers. Auckland Transport is committed to providing a healthy and safe environment for all its employees and has included the costs of continuously improving health and safety in its capital and operating budgets for parking and enforcement.

12.1 Outcomes

The Key Performance Indicator (KPI) for parking is occupancy rates. For on-street paid carparks, a low occupancy (below 70%) could mean that the price is set too high, or that space has been allocated to parking that is not needed. A high occupancy rate (over 90 %) means wasted time and traffic congestion as people drive around looking for a place to park.

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
Ensure optimal use of parking resources	On street parking occupancy rates (peak 4-hour)[6]	N/A	Within 70-90% range	70% - 90%	70% - 90%	70% - 90%	70% - 90%

12.2 Parking and Enforcement Costs and Revenue

Parking and Enforcement activities generate revenue in excess of their costs, as well as implementing policies to make travel around Auckland safer and more reliable.

Parking and Enforcement Operating Cost	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Parking	14.9	14.9	14.9	104.0
Enforcement	20.0	20.0	20.0	140.4
Parking and Enforcement Total	**34.9**	**34.9**	**34.9**	**244.4**

Parking and Enforcement Renewals	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Renewals - Parking	**2.2**	**2.3**	**2.4**	**18.9**

Over the ten years of this plan, Auckland Transport will invest in projects to improve the management of its parking assets, including new technology to help optimise the allocation of parking resources as part of the transport network.

Parking and Enforcement Capital Expenditure	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Parking Programme	**5.1**	**1.1**	**1.1**	**16.5**

[6] 4-hour peak period is defined as the top 4 busiest hours of the day. These hours are not often coincidental and can vary depending on contributing factors. A sample of streets with paid parking are monitored to report on this KPI.

12.3 Park and Ride Provision

Park and Ride facilities comprise an integral part of the Public Transport (PT) network and can be regarded as extensions to stations and terminals.

Park and Ride facilities contribute to decongestion on Auckland's road networks by intercepting commuter trips that would otherwise have been made by car. By relocating commuter parking from the city centre to more peripheral locations more people can access public transport from further away and reduce private vehicle trips.

Currently, Auckland has around 5,500 existing Park and Ride bays of which 80% are at capacity by 8 am. At least half of the Park and Ride sites have a significant overflow onto surrounding streets affecting amenity and accessibility of town centres and residential areas. Where overspill onto surrounding streets becomes problematic Auckland Transport will apply the on-street parking policies to manage demand.

Auckland Transport will apply the following principles to prioritise sites for Park and Ride provision in Auckland:

- Planned as an integral part of the public transport network, extends the customer base and encourages public transport patronage.
- Site in locations that have frequent and rapid services available and less effective feeder services, walking and cycling opportunities.
- Locate facilities to intercept commuter trips by being 'on the way' from high potential catchment areas based on assessed demand.
- Locate to relieve congestion by intercepting commuter traffic, and ensure vehicles accessing the facilities would not worsen local traffic congestion.
- Provide in line with corresponding improvements to the public transport network such as station/ferry terminal upgrades to maximise investment.
- Enable a transition of land use that supports transit oriented development in the right locations.

Over the next 10 years, Auckland Transport aims to introduce a further 2,800 Park and Ride bays and will invest in three types of delivery modes for Park and Ride facilities. They include leasing opportunities, new builds (including commercial/alternative funding) and rationalising existing parking in on-street spaces adjacent to public transport stations. Pricing Auckland Transport's Park and Ride facilities will also be introduced during the period of this RLTP to manage demand for parking at these facilities.

The priority Park and Ride facilities that are proposed in the first three years of the 10-year programme include Papakura, Westgate, Silverdale (stage 2), the Park and Ride facility delivered as part of a wider project at Pukekohe Interchange, the NORSGA PC 13 Hobsonville Point Park and Ride and Glen Eden.

Park and Ride Capital Expenditure	2015/16 $m, inflated	2016/17 $m, inflated	2017/18 $m, inflated	2018/19 to 2024/25 $m
Papakura Park and Ride		0.8		
Glen Eden Park and Ride	0.9			
Park and Ride Silverdale-Stg 2		6.1		
Westgate Park and Ride			3.4	
Park and Ride Total	**0.9**	**6.9**	**3.4**	

13. Transport Planning

The transition to the One System approach described in Chapter 5 necessitates a new way of planning and managing Auckland's transport network. It requires much greater collaboration between agencies responsible for transport planning including Auckland Transport, Auckland Council, KiwiRail and the Transport Agency to better plan and integrate transport provision and land use in a more effective, efficient and affordable way.

Planning needs to be co-ordinated to ensure investment makes the best use of existing infrastructure and the best overall outcomes can be achieved.

Auckland Council's Future Urban Land Supply Strategy (FULSS) will outline the intended timing and sequencing of structure planning in greenfield areas. Structure planning and the necessary plan changes to 'live zone' greenfield areas are intended to occur in the three years prior to development commencing. Co-ordinating the timing of future transport interventions with the intended timing of development will be a key required outcome from the transport planning activities in these areas. This will require close collaboration between Auckland Council, Auckland Transport and the Transport Agency.

Auckland Transport is responsible for, amongst other planning activities, developing:

- This RLTP, the 30-year Integrated Transport Plan, the Regional Public Transport Plan and Auckland Transport's input into strategies and plans of Auckland Council, the Transport Agency, and other organisations
- Strategic plans for arterial roads, public transport, freight networks, cycling, walking and parking. These plans define the demands, priorities and future development for each mode/asset
- Integrated planning for major infrastructure projects, (described in Chapters 6 and 7) City Centre initiatives and growth-related projects (as discussed in Chapter 9).
- Asset management planning for the Auckland Transport road network of 7,278km (local and arterial roads)

The Transport Agency is responsible for managing the state highways at a national level. As part of the One System approach the Transport Agency also collaborate

with Auckland Transport and Auckland Council to ensure that regional planning is fully integrated.

The three agencies of Auckland Transport, Auckland Council and the Transport Agency have agreed to work closely on a more co-ordinated and integrated response to strategic transport planning and investment and transition to One Road Network Classification system.

An example of this is the consolidation of previously separate regional land use and traffic modelling teams into the Joint Modelling Application Centre (JMAC). JMAC has recently been established to deliver an integrated operational approach to traffic modelling and forecasting for the Auckland region. By combining resources, JMAC is able to integrate and manage transport and traffic planning and modelling in Auckland into a robust, reliable, up to date, internationally recognised service.

Using the business case approach, the intent is to ensure transport planning investment is collaborative by engaging all key stakeholders, is problem driven, and that benefits and outcomes are identified. In this way it is anticipated that interventions to deliver against the problem will be identified and agreed by stakeholders and that these interventions will provide better value for money and that opportunities for making better use of existing capacity are explored before supply measures. Transport planning must also consider the impacts of potential interventions on all road users. Thus the process of transport planning is one of engagement and agreement, using a framework that provides consistency, clarity and informed decision making.

13.1 Regional Transport Planning Costs

The Transport Planning budgets for Auckland Transport, the Transport Agency and Auckland Council are set out below:

Transport Planning Operating Cost – Auckland Transport	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Regional Land Transport Planning	0.6	0.5	0.5	3.9
Regional Strategic Planning	0.8	0.8	0.7	5.0
Programme Business Cases	5.6	5.1	5.0	28.8
Land Use Planning	1.4	1.4	1.4	9.9
Transport Modelling	0.7	0.7	0.7	4.8
Asset Management Planning and Policy	1.6	1.6	1.6	11.2
Transport Planning Total	**10.6**	**10.1**	**10.0**	**63.7**

Transport Planning Operating Cost – Transport Agency	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Activity Management Planning – Auckland	0.3	0.2	0.3	
Programme Business Cases	1.2	4.2	0.5	
Transport Planning Total – Transport Agency	**1.5**	**4.4**	**0.8**	

Transport Planning Operating Cost – Auckland Council	2015/16 $m	2016/17 $m	2017/18 $m	2018/19 to 2024/25 $m
Transport Modelling	0.2	0.1	2.9	2.3
Transport Planning Total – Auckland Council	**0.2**	**0.1**	**2.9**	**2.3**

The following table outlines the high level planning, known as Programme Business Cases that Auckland Transport and the Transport Agency are proposing in the next three years.

Auckland Transport Improving Transport Choice and Accessibility; New PT Network Gap and Deficiency Resolution; North West Auckland Public Transport Accessibility; Northern Corridor Transport Choice Improvements; Responding to Growth Areas Warkworth, SMART – Improving Accessibility and Transport Choice; Reducing Adverse Effects from Rail Crossings
Auckland Transport / Transport Agency Responding to Growth City Centre and Fringe, Responding to Auckland Growth Areas North Auckland, Responding to Growth North West, Responding to Growth Areas South
Transport Agency Auckland Network Operating Plan Implementation; Automated optimisation, compliance and enforcement; Improving cycling for clusters of schools; Integrated Freight Transport Requirements; National LED Lighting for State Highways; National business case for State Highway Operations; National business case for State Highway Optimisation; National business case for speed management implementation; Resilience Auckland; SH1 Wellsford to Warkworth (NRR2); SH16 Brigham Creek to Waimauku (NRR11); SH20B – Manukau Gardens to Airport (NRR38) and SH22 – SH1 to Glenbrook Road (NRR37)

14. Monitoring and Review

This RLTP will not have its own separate monitoring and review process. Rather, it will rely on existing reporting mechanisms to ensure that information on progress towards the goals of this RLTP is available to the public. These reporting mechanisms are:

Auckland Transport Monthly Performance Reports

The Auckland Transport Board receives monthly updates on transport network performance, as well as on those aspects of the wider economy, such as fuel prices and freight trends, that impact the transport sector. Almost all of the KPIs included in this RLTP are included in these monthly reports, which are available on the Board Agendas page of **www.aucklandtransport.govt.nz**.

Auckland Transport Annual Report

Annual, audited measures for each of the KPIs in this RLTP are included in the Auckland Transport Annual Report.

Annual Achievement Report

The Annual Achievement Report is submitted by Auckland Transport to the Transport Agency each July. These results, along with results from other areas of NZ, are published in the Transport Agency's Annual Report.

Project Achievement Reports

Performance of significant projects in achieving their forecast benefits is measured and reported to the Transport Agency.

Auckland Transport's Asset Management Plan

Measures relating to asset condition and performance will be reported through the annual Asset Management Report.

Performance measures are included in the relevant chapters. The full set of performance measures is:

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
Prioritise rapid, high frequency public transport	Total public transport boardings (millions)	72.4	73.7	84.5	89.0	93.0	Increasing to 110.7
Transform and elevate customer focus and experience	Customer satisfaction - Roads	71%	70%	70%	70%	70%	70%
	Customer satisfaction - Footpaths	63%	65%	65%	65%	65%	65%

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
	Customer satisfaction - Road Safety	63%	New Measure	60%	60-65%	60-65%	60-65%
	Public Transport punctuality (weighted average across all modes)	85.9%	New measure	92%	93%	94%	95%
	Customer satisfaction index- Public Transport	81.4%	83%	83%	84%	85%	85%
Build network optimisation and resilience	Arterial road productivity[7]	68%	53% of the ideal achieved	54% of the ideal achieved	55% of the ideal achieved	55% of the ideal achieved	55% of the ideal achieved
	Travel times on key freight routes[8]	Baseline travel times maintained on 6 out of 8 routes	Maintain travel times for 85th percentile on all nominated freight routes	Maintain baseline travel times for the 85th percentile	Maintain baseline travel times for the 85th percentile	Maintain baseline travel times for the 85th percentile	Maintain baseline travel times for the 85th percentile

[7] Road productivity is a measure of the efficiency of the road in moving people during the peak hour. It is measured as the product of number of vehicles, their average journey speed and average vehicular occupancy. Key arterial routes include:
Airport to CBD (via Manukau Rd)
St Lukes to St Johns (via Balmoral/Greenlane West/Greenlane East/Remuera Rd)
Albany to Birkenhead (via Glenfield Rd)
Henderson to CBD (via Great North Rd)
SH1 to Ti Rakau Dr (via Te Irirangi Dr)
SH20 to Portage Rd (via Tiverton/Wolverton Rd)

[8] Target travel times on nominated strategic freight routes:

Route	Travel Time (mins)
SEART (from Sylvia Park to East Tamaki)	11
SEART (from East Tamaki to Sylvia Park)	12
Wairau Rd (from SH1 to SH18)	8
Wairau Rd (from SH18 to SH1)	8
Harris Rd (from East Tamaki to SH1 Highbrook interchange)	10
Harris Rd (from SH1 Highbrook interchange to East Tamaki)	11
Kaka St/James Feltcher Dr/Favona Rd/Walmsley Rd (SH20 to Walmsley)*	13
Kaka St/James Feltcher Dr/Favona Rd/Walmsley Rd (Walmsley to SH20)*	13
Great South Rd (SH1 Ellerslie Panmure Hwy Interchange to Portage Rd)*	11
Great South Rd (Portage Rd to SH1 Ellerslie Panmure Hwy Interchange)*	11

*New added route

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
	Annual number of cycling trips in designated areas in Auckland: - During Morning peak - All day	141,897 (morning peak)	142,200 (AM peak) 958,000 (all day)	1.1m (all day)	1.2m (all day)	1.8m (all day)	2.5m p.a. – 4.3m (all day)
	Road maintenance standards (ride quality) as measured by smooth travel exposure (STE) for all urban and rural roads [9]	Rural 95 Urban 85	New Measure	Rural 93 Urban 83	Rural 92 Urban 82	Rural 91 Urban 81	Rural 87 Urban 77
	Percentage of the sealed local road network that is resurfaced	7.6%	New Measure	8%	8%	8%	8%
	Percentage of footpaths in acceptable condition (as defined in AT's AMP)	99%	New Measure	99%	99%	99%	98%
	Percentage of customer service requests relating to roads and footpaths which receive a response within the time frame specified in Auckland Council's Long-term Plan.	85%	New Measure	85%	85%	85%	85%
	New cycle ways added to regional cycle network	N/A	New Measure	Complete additional 52 km over the 3 year period			
Develop creative, adaptive, innovative implementation	No. of car trips avoided through travel planning initiatives	16,587	16,700	17,500	18,400	20,240	22,264

[9] Smooth travel exposure measures the proportion of vehicles kilometres travelled in a year (VKT) that occurs on 'smooth' sealed roads and indicates the ride quality experienced by motorists.

Level of service statement	Performance measure	Actual 2013/14	Annual Plan 2014/15	Long Term Plan targets			
				2015/16	2016/17	2017/18	2018/19-24/25
Ensure a sustainable funding model	PT Farebox recovery %[10]	N/A	New Measure	46-48%	47-50%	49-52%	50%+
Ensure optimal use of parking resources	On street parking occupancy rates (peak 4-hour)[11]	N/A	Within 70-90% range	70% - 90%	70% - 90%	70% - 90%	70% - 90%

[10] A farebox recovery ratio measures the contribution fares make to the operating cost of providing public transport services.

[11] 4-hour peak period is defined as the top 4 busiest hours of the day. These hours are not often coincidental and can vary depending on contributing factors.

15. Looking forward

Transport funding

Auckland Transport's and the Transport Agency's programmes will address the most urgent transport needs in the short-term. However, in the longer term if Auckland's transport system is to cope with the population growth expected, alternative funding solutions will need to be considered. Auckland Transport will also miss out on opportunities to achieve significant benefits from aligning their investment with that made by the Transport Agency on the state highway network. Over time, the performance of the transport system will get progressively worse as Auckland's population grows.

Aucklanders want improved speed, frequency, affordability, reliability and attractiveness of the transport network so that more Aucklanders will choose to travel by public transport more often. The Auckland Plan envisages us doubling the number of public transport passenger trips to a total of 140 million trips each year by 2025. An expanded network would also improve connection with and allow development of outer-lying areas.

The main benefit of additional transport investment would be less congested roads (than would otherwise occur), as well as faster and more frequent public transport that becomes the preferred way of getting around for many more Aucklanders. Additional investment would give people much more choice to make more trips on buses, trains and ferries as well as by walking and cycling. This in turn would release capacity on the road network for freight and other road trips.

Additional transport funding (over and above the funding provided for in this 10-year budget) would enable:

- more frequent bus services, providing faster connections to more destinations
- additional investment in bus and rail stations and interchanges, with increased Park and Ride capacity
- more new cycleways and shared cycling and walking paths
- enhanced safety programmes and greater investment to address high priority rail level crossings
- more arterial and local road improvement projects to address growth pressures and existing congestion
- a more optimal and sustainable approach to managing our transport assets.

Transport modelling for the proposed Auckland Plan Transport Network indicated that businesses would see a large improvement in their ability to move goods around the region. By 2046 we would see improvements in key freight routes by 15 to 30 per cent, which will assist in region wide productivity improvements.

By 2046 trips across the city would be faster for both private vehicles and public transport. A trip from Westgate to the city centre would be 19 minutes faster. The access to employment would improve significantly with the proportion of jobs accessible by a public transport trip within 45 minutes improving by 5 per cent and a 30 minute car ride by 5-10 per cent by 2046.

Moving commuters from private vehicle use to public transport and the reduction of time spent in traffic congestion for the remaining road users, is one of the most significant contributions that can be made to improving the impact that the city has on the natural environment.

A Transport Accord for Auckland

Central Government has signalled its willingness to work with Auckland Council to develop an Accord that will address the long-term funding of transport in Auckland. Auckland Council welcome this opportunity and look forward to these discussions. Whatever the outcome, it is expected that Auckland will need to significantly revise its long-term transport plans as part of developing the 2018 RLTP, if not before.

16. Prioritised List of Projects

The following tables show the prioritised list of projects which form the basis of Auckland Transport, the Transport Agency and Auckland Council funding requests for the Regional Land Transport Plan 2015–18.

Not all the activities shown in the detailed tables are expected to receive subsidy from the Transport Agency. The programme shows all significant land transport projects and activities that will be carried out in Auckland over the next three years, and how these will be funded.

One role of the RLTP is to make the business case to the Transport Agency for investment in Auckland Transport activities. Those activities which the Transport Agency considers to be a cost-effective contribution to achieving the goals set out in the Government Policy Statement (1) will be included in the National Land Transport Programme. Auckland Transport has estimated the funding it will receive from the Transport Agency in its budget; however this funding cannot be guaranteed and must be applied for in individual detailed applications. Consequently, there are no financial implications of this RLTP, however when detailed applications for funding are made and the Transport Agency decides whether to support individual applications for subsidy, there are significant financial implications.

16.1 Key to format and content of prioritised list

All projects have been evaluated for their strategic fit, effectiveness and efficiency using the process set out in Chapter 4. For projects in the outer years of this plan, information is currently incomplete and it is likely that the profile and therefore priority of the project will change.

The tables (and headings) below use the following abbreviations and terms:

Project name

Shaded projects are delivered by the Transport Agency Highway and Network Operations (state highways) - HNO

Some of the activities listed in the tables (for example, Walking and Cycling Programme and Safety programmes) provide for a single region-wide funding allocation that covers a large number of individual projects. Within each of these groups of projects, Auckland Transport and/or the Transport Agency have agreed a methodology for bringing forward the highest priority projects for funding.

Cost ($)

This is the total cost of the identified activity for that particular year in the RLTP (which may be blank or zero, and may be the sum of multiple phases). Most activities are funded through a combination of local share and Transport Agency funding, but some activities have more complex funding arrangements.

Phase: refers to the stage of development:

I = Investigation D = Design P = Property Purchase C = Construction

Year 4–10 cost: The amount of money being requested for all phases in years 4 to 10 of the RLTP. The accumulation of the total costs in 2015/16, 2016/17 and the year 4–10 costs equals the total 10-year cost.

Profile: The prioritisation profile assigned to the activity based on Auckland Transport's prioritisation process as set out in Appendix 2.

The first letter represents the project's strategic fit

The second letter represents the project's effectiveness

The third letter represents the project's efficiency

Together the three letters create the profile

High = H

Medium = M

Low = L

L* = Efficiency of the project has not been assessed yet.

Transport Agency Work Category: This is Auckland Transport's estimate of the likely work category (23) under which the Transport Agency may choose to fund the activity.

16.2 Details of projects and priorities

	Projects with Commitments	Transport programme						
		2015/16		2016/17		2017/18		2018/19
		$m, inflated	Phase*	$m, inflated	Phase*	$m, inflated	Phase*	to 2024/25
Committed	Core Seal Extensions	3.3	I, D, C	3.3	I, D, C	3.3	I, D, C	8.6
Committed	Local Board Initiatives	10.3	D, C	10.5	D, C	10.8	D, C	85.9
Committed	AT Renewals	198.4		228.2		239.6		1,846.00
Committed	LED Streetlighting	4.5	C	4.6	C	4.8	C	47.9
Committed	NZTA Renewals	31.7		40.1		40.8		294
Committed	Estimate for Seismic Strengthening Works (excluding Quay Street)	1	I, D,C	1.1	I, D,C	1.1	I, D,C	59.6
Committed	Albany Highway Upgrade (North)	23.5	C	13.1	C	1.1	C	
Committed	EMU Procurement	26.8	C	1	C			
Committed	Improvements Complementing Developments	0.8	C	0.8	C	0.9	C	6.9
Committed	Long Bay Glenvar Ridge Rd	3.1	D, C	2.7	C	2.6	C	
Committed	NorthWest Transformation (NORSGA PC 15 Massey North Town Centre)	17.1	D, P, C	14	D, C	6.2	D, C	7.1
Committed	NorthWest Transformation (NORSGA PC 13 Hobsonvillle Point Park and ride)			0.5	C			
Committed	NorthWest Transformation (NORSGA PC14 Hobsonville Village)							22.8
Committed	Plan Change 32 Penihana North Transport Mitigation							0.4
Committed	Penlink Toll Road Designation (Silverdale Transport Improvements)	1.3	I,P					
Committed	Wynyard Quarter Integrated Road Programme	5.5	C					
Committed	Newmarket Station access improvements	0.3	D	1.2	C			
Committed	Stockyard Falls Light Industrial and Retail Parks (Variation 158) (Warkworth Western Collector)			3.4	C			
Committed	Private Plan Change 12 Drury South Transport Implementation	3.1	I,D,P	25.8	D,C,P	15.1	C	22.6
Committed	Local Road Improvements complementing HNO initiatives (previously known as Warkworth SH1 Intersection Improvements)							5.9
Committed	Waterview Shared Path	3.6	I, P, C	1.8	C			

*Phase - I=Investigation, D=Design, P=Property, C=Construction

	AT ongoing operational requirements	2015/16		2016/17		2017/18		2018/19
		$m, inflated	Phase*	$m, inflated	Phase*	$m, inflated	Phase*	to 2024/25
Ongoing	AIFS system - extensions, enhancements and equipment replacement	1.8		1.9		4.2		28.1
Ongoing	AIFS system - integrated fares	6.2						
Ongoing	Diesel Refurbishment (alternative to electrification Papakura to Pukekohe)							8.1
Ongoing	Digital Technology	6.7		6.9		7.1		56.4
Ongoing	Park n Ride - Glen Eden	0.9	C,P					
Ongoing	General AT Asset Replacement	6.2		6.3		6.5		51.5
Ongoing	Operational asset replacement – Paid Parking Technology	5.1		1.1		1.1		16.5
Ongoing	Resolution of Encroachments and Legacy Land Purchase Arrangements	1.2	C	1.3	C	1.3	C	10.5

*Phase - I=Investigation, D=Design, P=Property, C=Construction

	Greenfield Growth Networks	2015/16		2016/17		2017/18		2018/19
		$m, inflated	Phase*	$m, inflated	Phase*	$m, inflated	Phase*	to 2024/25
	Transport Improvements in Strategic Housing Areas							
	Local Residential Growth Fund	35	C,P	35.9	C,P	36.8	C	290.6

Priority	Ranked Capex Projects	AT Profile	Transport Agency work category	2015/16 $m, inflated	Phase*	2016/17 $m, inflated	Phase*	2017/18 $m, inflated	Phase*	2018/19 to 2024/25
1	City Rail Link	HHL	Public transport improvements	**113.8**	D,C,P	**156.5**	D,C,P	**124.8**	D,C,P	**1,947.00**
2	AMETI Programme	HHL	Road improvements	**10.3**	I,D,C	**21.1**	D,C,P	**32.5**	D,C,P	**488.3**
3	City Centre Bus Improvements	HHH	Public transport improvements	**2.1**	I,C	**15.8**	C	**16.2**	C	**72.5**
4	East West Connections (was East West Link)	HHL	Road improvements	**1.5**	I	**1.6**	I,D	**1.6**	D	**130.8**
5	East West Connections State Hway component	HHL*	State Highway Improvements	**6.9**		**29.2**		**10.8**		
6	Lincoln Rd - Corridor Improvements	HHH	Road improvements	**1.8**	I,D,P	**2.1**	D,P			**50.7**
7	Dominion Road Corridor Upgrade	HHL	Road improvements							**59.6**
8	Bus Priority Improvements & Transit Lanes	HHH	Road improvements	**4**	I,D,C	**5.6**	I,D,C	**5.8**	I,D,C	**52.9**
9	Walking and Cycling Programme - AT	HHM	Walking and Cycling	**24.6**	I,D,C	**35.8**	I,D,C	**57.6**	I,D,C	**74.7**
10	Walking and Cycling Programme - NZTA	HHL*	Walking and Cycling	**33.9**		**11.3**		**7.2**		**58**
11	Southern Corridor Improvements	HHH	State Highway Improvements	**53.2**		**82**		**76**		**46.6**
12	SH1 Northern Corridor Improvements - Motorway	HHL	State Highway Improvements	**25.5**		**91**		**94**		**235.8**
13	Newmarket Crossing	HHL	Road improvements	**1**	D,P	**5.3**	C			
14	Pukekohe Interchange (incl Customs / Harris / Manukau Street intersection improvement)	HHL	Public transport improvements	**3.1**	I,D,C,P	**10.6**	C			
15	Manukau Interchange (was Manukau City Rail Link)	HHM	Public transport improvements	**9.5**	D,C	**11.5**	D,C			
16	Otahuhu Bus Interchange	HHL	Public transport improvements	**14.4**	D,C	**3.8**	P			
17	SH1 Waitemata harbour crossing (Planning and route protection)	HHL*	State Highway Improvements	**7**		**8.9**		**11**		**84.9**
18	Safety programmes (including safety and minor improvements, safety around schools, crash reduction implementation, regional safety programme and safety speed management)	HHH	Road improvements	**22.5**		**22.5**		**22.5**		**111**
19	SH20 / SH16 Western Ring Route	HHL	State Highway Improvements	**364**		**204.7**		**72.9**		
20	Quay Street Seawall (including Seismic Strengthening)	HHL*	Resilience improvements							**48.7**
21	Red Light Cameras New	HHH	New traffic management facili	**0.1**		**0.1**		**0.1**		**1**
22	Akoranga Busway Station improvements	HHH	Road improvements							**1.4**
23	Plan Change 127 Huapai North Transport Mitigation	HHH	Road improvements							**2.5**
24	Taharoto/Wairau - Stage 3	HHH	Road improvements							**4.3**
25	Te Atatu Motorway Bus Interchange	HHH	Public transport improvements	**0.5**	D	**4.7**	C			
26	Flat Bush Main Street Collector Link	HHM	New roads	**1.5**	D,C,P	**5.5**	C			
27	Murphys Rd Upgrade Bridge Improvements (Plan Change 20)	HHM	Road improvements			**4.4**	C	**4.5**	C	
28	AT Metro Business Technology (was Real Time Passenger Information System Enhancements)	HHL	Public transport improvements	**1.1**	C	**1.2**	C	**1.2**	C	**7**
29	PT Safety, Security and Amenity Improvements (was Station Amenity Improvements)	HHL*	Public transport improvements	**1.8**	I,D,C	**1.9**	I,D,C	**1.9**	I,D,C	**15.5**
30	Te Atatu Rd : Corridor Improvements	HHH	Road improvements	**13.7**	C,P	**6.6**	C			
31	SMART (Airport Rail - Planning and Route Protection)	HHL*	Public transport improvements	**2.1**	C	**6.3**	C	**13**	C	**12.6**
32	Minor PT capex allowance for bus stops, minor improvements at stations, wharves, provision of PT information etc.	HHL	Public transport improvements	**6.3**	C	**5**	C	**5**	C	**29.5**
33	SH16 / SH18 Intersection	HHM	State Highway Improvements							
34	Brigham Creek Road Corridor Improvements	HHL	Road improvements							**10.7**
35	Route Optimisation / Network Operating Plan Capital Programme	HHH	Road improvements	**2.6**	I,D,C	**2.6**	I,D,C	**2.7**	I,D,C	**15.8**
36	SH1 Puhoi to Warkworth New Road	HHL*	State Highway Improvements	**27.8**		**2.3**		**2.3**		**6.7**
37	SH1 Warkworth to Wellsford	HHL*	State Highway Improvements	**15**		**7**		**9**		**20**
38	Airport Access Improvements	HML	State Highway Improvements	**70.5**		**46.5**				
39	Northern Busway – additional stations associated with busway extension	HMH	Public transport improvements							**6.4**
40	SH1 Northern Corridor Improvements - Busway Component	HML*	State Highway Improvements							
41	Double decker network mitigation works	HMH	Road improvements	**6.5**	C	**6.2**	C	**6.4**	C	**7.7**
42	Northwestern Busway (AT component) - early works and / or route protection	HML*	Road improvements							**43**

Priority	Ranked Capex Projects	AT Profile	Transport Agency work category	2015/16 $m, inflated	Phase*	2016/17 $m, inflated	Phase*	2017/18 $m, inflated	Phase*	2018/19 to 2024/25
43	Mill Road (Northern)	HMH	Road improvements	**3.1**	I,P	**3.2**	I,D,P	**3.2**	D,P	**123.9**
44	Tamaki Drive & Ngapipi Intersection	HMM	Road improvements			**4.3**	C			
45	Silverdale Interchange Upgrade	HMM	State Highway Improvements							**2.5**
46	Rail Crossing Separation	HML*	Road improvements							**25.7**
47	Intelligent Transport Systems Infrastructure (JTOC, ATOC, CCTV, Incident Management Response Systems)	HMH	New traffic management faciliti	**3.6**	C	**3.7**	C	**3.8**	C	**22.1**
48	Street Lighting improvements- regionwide	HML*	Road improvements	**0.3**	C	**0.3**	C	**0.3**	C	**2.6**
49	Minor SH Improvements inc. Safety, optimisation and resilience	HML*	State Highway Improvements	**6.1**		**1.2**		**1.3**		
50	Park n Ride - Papakura	HMH	Public transport improvements			**0.8**	D,C			
51	Park n Ride - Westgate	HMH	Public transport improvements					**3.4**	C	
52	Park n Ride Silverdale-Stg 2	HML	Public transport improvements			**6.1**	C			
53	SH1 Northbound auxiliary lane	HMM	State Highway Improvements	**8.3**		**1.4**				
54	Warkworth Stage 1 (Hill ST)	MHM	State Highway Improvements	**1.8**						
55	Hobsonville Deviation	MMM	State Highway Improvements	**3.3**						
56	Noise Improvements Programme	MMM	State Highway Improvements	**0.5**		**8.5**				
57	Brigham Creek-Railway Rd Median Barrier	MML*	State Highway Improvements			**0.1**		**4**		**2.8**
58	Ngakoroa Realignment (Passing)	MLM	State Highway Improvements					**0.2**		**7.7**
59	McKinney / Wech Dr Intersection	LML*	State Highway Improvements							
60	Wharehine Road	MLL	State Highway Improvements	**0.2**		**1.5**		**2.8**		
61	SH16/Muriwai Rd Intersection	LLL*	State Highway Improvements					**2.4**		**5**

Auckland Council projects to be transferred to AT - prioritisation scores pending	AT Profile	NZTA work category	2015/16 $m, inflated	Phase*	2016/17 $m, inflated	Phase*	2017/18 $m, inflated	Phase*	2018/19 to 2024/25
Quay Street Boulevard Upgrade									
Hobson & Nelson Upgrade									

Parking initiatives - to be considered outside of prioritisation methodology above	AT Profile	NZTA work category	2015/16 $m, inflated	Phase*	2016/17 $m, inflated	Phase*	2017/18 $m, inflated	Phase*	2018/19 to 2024/25
New Residential Parking Schemes	N/A	Not Eligible for Subsidy							
Off-Street Paid Parking (New)	N/A	Not Eligible for Subsidy							
On-street Information Paid Parking New Areas	N/A	Not Eligible for Subsidy							
Licence Plate Recognition - car parks	N/A	Not Eligible for Subsidy							
Minor On-street parking improvements	N/A	Not Eligible for Subsidy							
Parking Enforcement - Projects	N/A	Not Eligible for Subsidy							

Auckland Rail initiatives (delivered by KiwiRail, dependent on Central Government funding)	AT Profile	NZTA work category	2015/16 $m, inflated	2015/16 Phase*	2016/17 $m, inflated	2016/17 Phase*	2017/18 $m, inflated	2017/18 Phase*	2018/19 to 2024/25
Third Rail Line Otahuhu / Wiri KiwiR ITP	N/A	Auckland Rail	15.4		15.8		16.3		
Auckland Train Control Centre KiwiRail	N/A	Auckland Rail			10.5		10.8		
Crossovers	N/A	Auckland Rail	6.4		6.6		6.8		7.0
Signalling Improvements	N/A	Auckland Rail	1.0		1.1				
Catch-up renewals etc.	N/A	Auckland Rail	16.2		16.7		17.1		54.6
Traction	N/A	Auckland Rail	12.8		13.2		13.5		13.9
Port of Auckland Access Improvements	N/A	Auckland Rail	10.3		10.5				
Pukukohe Rail Electrification	N/A	Auckland Rail							174.6
Paerata Junction / Mission Bush	N/A	Auckland Rail							13.2

Appendix 1: Legislative Requirements

The legislative requirements for Auckland RLTP are contained in the Land Transport Management Act 2013 (LTMA).

1.1 Core requirements

LTMA S14 Core requirements of regional land transport plans	How this requirement is met in the RLTP
Before a regional transport committee submits a regional land transport plan to a regional council or Auckland Transport (as the case may be) for approval, the regional transport committee must—	The Board of Auckland Transport is the Regional Transport Committee for Auckland and will adopt the draft RLTP for consultation, confident that it satisfies the requirements of the Act.
"(a) be satisfied that the regional land transport plan—	
"(i) contributes to the purpose of this Act; and	Chapters 3 to 5 set out how this plan contributes to an effective, efficient, and safe land transport system in the public interest.
"(ii) is consistent with the GPS on land transport; and	Auckland Transport considers that this RLTP is consistent with the final GPS released in July 2014, and will take the final GPS into account in finalising this RLTP.
"(b) have considered—	
"(i) alternative regional land transport objectives that would contribute to the purpose of this Act; and	Section 3 sets out the alternative transport scenarios and funding scenarios considered in the preparation of this RLTP
"(ii) the feasibility and affordability of those alternative objectives; and	
"(c) have taken into account any—	
"(i) national energy efficiency and conservation strategy; and	The Transport goal of the NEECS is "A more energy efficient transport system, with a greater diversity of fuels and alternative energy technologies." Energy efficiency and alternative fuels were among the criteria used to evaluate projects as set out in [Appendix 3].
"(ii) relevant national policy statements and any relevant regional policy statements or plans that are for the time being in force under the Resource Management Act 1991; and	Auckland Transport worked closely with Auckland Council in the preparation of this RLTP, to ensure that it was consistent with the Unitary Plan and Auckland Plan.
"(iii) likely funding from any source."	The RLTP sets planning sources of funding, by activity, in the detailed chapters. The overall balance of this funding is considered in [section 3.2].

1.2 Form and content requirements

LTMA S14 Form and content of regional land transport plans	How this requirement is met in the RLTP
(1) A regional land transport plan must set out the region's land transport objectives, policies, and measures for at least 10 financial years from the start of the regional land transport plan.	Objectives, policies, and detailed performance measures are included in the Activity chapters of this RLTP.
(2) A regional land transport plan must include—	
"(a) a statement of transport priorities for the region for the 10 financial years from the start of the regional land transport plan; and	As set out in Chapters 3 to 5
"(b) a financial forecast of anticipated revenue and expenditure on activities for the 10 financial years from the start of the regional land transport plan; and	Expenditures and revenues are covered in outline in [Section 3] and in detail in the Activity chapters of this RLTP.
"(c) all regionally significant expenditure on land transport activities to be funded from sources other than the national land transport fund during the 6 financial years from the start of the regional land transport plan; and	[Section 14] includes all regionally significant expenditure on land transport including activities funded 100% by Auckland Council, KiwiRail projects, and all NZ Transport Agency projects funded from Government sources outside the NLTF.
"(d) an identification of those activities (if any) that have inter-regional significance.	A statement on interregional significance has been agreed between AT and Upper North Island councils and is included in Section 5 of this RLTP.
"(3) For the purpose of seeking payment from the national land transport fund, a regional land transport plan must contain, for the first 6 financial years to which the plan relates,—	
"(a) for regions other than Auckland […]	
"(b) in the case of Auckland, activities proposed by Auckland Transport; and	All activities proposed by Auckland Transport are included.
"(c) the following activities that the regional transport committee decides to include in the regional land transport plan:	
"(i) activities proposed by approved organisations in the region or, in the case of Auckland, by the Auckland Council, other than those activities specified in paragraphs (a) and (b); and	Auckland Council's transport planning activities are included in Chapter 13
"(ii) activities relating to State highways in the region that are proposed by the Agency; and	All Transport Agency (Highway and Network Operations) activities that were submitted for inclusion in this RLTP have been included.
"(iii) activities, other than those relating to State highways, that the Agency may propose for the region and that the Agency wishes to see included in the regional land transport plan; and	All Transport Agency (Highway and Network Operations) activities that were submitted for inclusion in this RLTP have been included.
"(d) the order of priority of the significant activities that a regional transport committee includes in the regional land transport plan under paragraphs (a), (b), and (c); and	The prioritisation methodology is set out in [Section 4and Appendix 3, and the prioritised list of projects is in Section 16].
"(e) an assessment of each activity prepared by the organisation that proposes the activity under paragraph (a), (b), or (c) that includes—	AT has included in this RLTP all information supplied by the Transport Agency Highway and Network Operations in support of requirements (i) through (v).
"(i) the objective or policy to which the activity will contribute; and	Objectives and policies are included in each of the Activity chapters.

LTMA S14 Form and content of regional land transport plans	How this requirement is met in the RLTP
"(ii) an estimate of the total cost and the cost for each year; and	Costs are included in each of the Activity chapters.
"(iii) the feasibility and affordability of those alternative objectives; and	Timing and project phases are included in [Section 16].
"(iv) the expected duration of the activity; and	Proposed funding of activities is included in each of the Activity chapters.
"(v) any proposed sources of funding other than the national land transport fund (including, but not limited to, tolls, funding from approved organisations, and contributions from other parties); and	Each chapter also provides background on the activity, and a statement of value for money/ prioritisation.
"(vi) any other relevant information; and	KPIs and targets are included in each of the Activity chapters.
"(f) the measures that will be used to monitor the performance of the activities.	The RLTP sets planned sources of funding, by activity, in the detailed chapters. The overall balance of funding is considered in [Section 3.2].
"(4) An organisation may only propose an activity for inclusion in the regional land transport plan if it or another organisation accepts financial responsibility for the activity.	Proposed funding of activities is included in each of the Activity chapters.
"(5) For the purpose of the inclusion of activities in a national land transport programme,—	
"(a) a regional land transport plan must be in the form and contain the detail that the Agency may prescribe in writing to regional transport committees; and	AT have followed all Transport Agency guidelines in the preparation of this RLTP.
"(b) the assessment under subsection (3)(e) must be in a form and contain the detail required by the regional transport committee, taking account of any prescription made by the Agency under paragraph (a).	The Transport Agency has been closely involved in the preparation of this RLTP and has not raised any issues with the level of detail of financial and policy information presented.
"(6) A regional land transport plan must also include—	
"(a) an assessment of how the plan complies with section 14; and	[Section 3] sets out how this RLTP contributes to the Act, the GPS, and the Auckland Plan.
"(b) an assessment of the relationship of Police activities to the regional land transport plan; and	Road Safety priorities set out in the Safety section have been agreed with NZ Police.
"(c) a list of activities that have been approved under section 20 but are not yet completed; and	[Section 16] includes all capital projects for which AT or the Transport Agency will incur expenditure from 1 July 2015, including the completion of approved projects.
"(d) an explanation of the proposed action, if it is proposed that an activity be varied, suspended, or abandoned; and	[[Need to review closer to the time whether there are any variations to note here]]
"(e) a description of how monitoring will be undertaken to assess implementation of the regional land transport plan; and	KPIs are included in the Activity chapters and the method of monitoring and reporting is set out in [Section 14].
"(f) a summary of the consultation carried out in the preparation of the regional land transport plan; and	[Section 2] sets out consultation to date and the process for consulting on this RLTP.
"(g) a summary of the policy relating to significance adopted by the regional transport committee under section 106 (1); and	Appendix 3 sets out Auckland Transport's significance policy and the process for varying this RLTP.

LTMA S14 Form and content of regional land transport plans	How this requirement is met in the RLTP
"(h) any other relevant matters.	

1.3 Consultation requirements

18 Consultation requirements	Amended (simplified) 2013
(1) When preparing a regional land transport plan, a regional transport committee—	
"(a) must consult in accordance with the consultation principles specified in section 82 of the Local Government Act 2002; and	Auckland Transport is consulting on this RLTP alongside Auckland Council's consultation on the LTP and in accordance with LGA principles.
"(b) may use the special consultative procedure specified in section 83 of the Local Government Act 2002	Auckland Council will follow the special consultative procedure in its consultation on the LTP, which includes the same transport work program as this RLTP.
(2) […] Auckland Transport must consult both the governing body and each affected local board of the Council	Auckland Transport has worked closely with the Auckland Council governing body and has held pre-consultation meetings with local boards, iwi and transport stakeholders as part of the preparation of this RLTP.
18A{3} Combining consultation processes Auckland Transport complies with section 18(1) if the required consultation on the regional land transport plan is carried out in consultation with the Auckland Council's consultation on its long-term plan.	Auckland Transport meets its legal obligations to consult the public by being part of Auckland Council's consultation on the Long-tern Plan.
18C Reasons for not including activities in Auckland's regional land transport plan	
If Auckland Transport decides not to include in its regional land transport plan an activity proposed by the Auckland Council or the Agency, Auckland Transport must, when forwarding its plan to the Agency, give the Auckland Council or the Agency (as the case may require) written advice of the decision and the reasons for the decision.	This provision does not apply as all activities proposed by Auckland Council and the Transport Agency are included.

Appendix 2: Prioritisation Methodology

The following tables detail the system that Auckland Transport has employed to consider Strategic Fit, and Effectiveness when prioritising improvement projects.

2.1 Strategic Fit Assessment

The strategic fit of an activity relates to the issue or problem being addressed. Strategic Fit has been assessed using a detailed prioritisation methodology developed together with the Transport Agency and Auckland Council which assesses the contribution of transport projects to Auckland and Government outcomes as set out in section 4.3.

Benefit	ITP Desired Outcome	ITP Scoring Criteria
Benefit 1: Increased access to a wider range of quality affordable transport choices	Services that align with future land use patterns	2: Significantly increases the proportion of Aucklanders living within walking distance (500m) of frequent PT (FTN/RTN) e.g. RTN extensions or geographic widening of the FTN 1: Increases the proportion of Aucklanders living within walking distance (500m) of frequent PT (FTN/RTN) e.g. additional station on existing RTN OR increases the proportion of Aucklanders living within walking distance of any form of PT 0: No effect on the proportion of Aucklanders living within walking distance of frequent PT RED FLAG: Decreases the proportion of Aucklanders living within walking distance of frequent PT
	Services that meet customer needs	2: Significantly increases the proportion of PT customers satisfied with their service 1: Likely to increase the proportion of PT customers satisfied with their service 0: No effect on customer satisfaction RED FLAG: Detrimental effect on customer satisfaction
	Increased use of public transport	2: Significantly increases use of the PT system AND consequentially has an impact on reducing peak congestion 1: Increases use of the PT system 0: No effect on use of the PT system RED FLAG: Decreases use of the PT system
	Improved connections between transport modes & services	2: Improves connections between modes/services THAT optimise PT services & infrastructure 1: Improves connections between modes/services 0: No effect on connections between modes/services RED FLAG: Negative effect on connections between modes/services
	Faster PT and reduced journey times	2: Significantly reduces PT travel times and/or significantly increases PT travel speeds and/or reduces delay to PT services due to severe congestion 1: Reduces PT travel times and/or increases PT travel speeds and/or reduces delay to PT services due to congestion 0: No effect on PT speed/journey times RED FLAG: Detrimental effect on PT speed/journey times
	Improved reliability of PT services	2: Significantly increases the punctuality/reliability of PT services 1: Increases the punctuality/reliability of PT services 0: No effect on the reliability of PT services RED FLAG: Detrimental effect on the reliability of PT services
	Reduced private vehicle dependency	**THIS IS A PROGRAMME MEASURE - Not proposing to use this to prioritise individual projects - remove from 'Calculator' but keep in Strategic Framework**
	Improved affordability of transport	**THIS IS A PROGRAMME MEASURE - Not proposing to use this to prioritise individual projects - remove from 'Calculator' but keep in Strategic Framework**

Benefit	ITP Desired Outcome	ITP Scoring Criteria
	Significant increase in use of active modes	2: Significantly increases use of active modes AND consequentially has an impact on easing urban congestion 1: Increases use of active modes OR links to complete or complement existing walking & cycling networks 0: No effect on use of active modes RED FLAG: Decreases use of active modes
Benefit 2: Auckland's transport system moves people & goods efficiently	Managing severe urban congestion	2: Significantly reduces delay due to severe congestion OR maintains average vehicle speeds in a growing Auckland OR significantly relieves capacity constraints 1: Reduces delay due to congestion OR relieves capacity constraints 0: No effect on severe urban congestion RED FLAG: Detrimental effect on severe urban congestion
	More efficient freight supply chains	2: Significantly reduces delay to freight vehicles due to severe congestion - including designated routes for HPMV vehicles 1: Reduces delay to freight vehicles due to congestion 0: No effect on delay to freight vehicles RED FLAG: Detrimental effect to freight supply chains
	Support Auckland's economic aspirations	2: Directly facilitates the concentration of economic activity in a major business area, metropolitan centre or the city centre (as identified in the map below); OR has potential to deliver a nationally significant contribution to economic growth and/or productivity on a key route – including key freight routes, designated HPMV routes and key tourism routes. 1: Supports economic activity in a major business area, metropolitan centre or the city centre. 0: No effect on the agglomeration of economic activity into centres. RED FLAG: Detrimental effect on the agglomeration of economic activity into centres.
	Improved network resilience & travel time reliability	2: Significantly improves the network's ability to cope with unexpected events OR significantly improves travel time reliability 1: Improves the network's ability to cope with unexpected events OR improves travel time reliability 0: No effect on network resilience or travel time reliability RED FLAG: Detrimental effect on network resilience or travel time reliability
Benefit 3: Better use of transport investment	Missing links in the strategic transport network are filled	2: Links to complete or complement existing networks AND implementation will result in the easing of severe urban congestion 1: Links to complete or complement existing networks 0: No relevance to links in existing networks RED FLAG: Detrimental effect to links in existing networks
	Wider network benefits achieved through smaller investments in existing assets	2. Wider network benefits are achieved which result in the reduction of severe congestion (project cost is less than $5m) OR makes better use of existing transport capacity on a key route 1. Wider network benefits are achieved which result in the reduction of congestion or improved travel time reliability (project cost is less than $5m) 0: Project costs more than $5m, or does not deliver wider network benefits RED FLAG: Project has detrimental effects on the wider transport network
	The transport network is optimised through being managed and prioritised as a single system	2: One System initiatives that manage demand to address journey time reliability / ease severe congestion OR One System initiatives that make better use of existing transport capacity on a key route 1: One System initiatives that manage demand / ease congestion 0: Not a One System/demand management initiative RED FLAG: Detrimental effect to a One System approach
	Improved value for money from future operating expenditure	2: Improves whole of life costs OR optimises the cost of PT services (for example: increased PT fare box recovery ratio, reduced operating subsidy per PT passenger KM, or via a reduction in network operating costs) 1: Not applicable for this criteria 0: Normal project effect on operating costs RED FLAG: Project significantly increases network operating costs which are likely to exceed network benefits
	Assets are renewed and maintained optimally	**THIS IS AN ASSET MANAGEMENT MEASURE AND DOES NOT RELATE DIRECTLY TO PRIORITISING NEW CAPEX PROJECTS**

Benefit	ITP Desired Outcome	ITP Scoring Criteria
	Right sized solutions at the appropriate time	2: Delivers an optimised solution which has been proven to balance cost with the achievement of benefits OR the project provides an acceptable interim solution which postpones the need for significant further investment 1: Options evaluation has been undertaken which proves this project to be the best alternative available 0: Project not related to this measure OR no options evaluation completed to date RED FLAG: Ignores cheaper and/or interim solutions that may delay the need for larger-scale investment
Benefit 4: Auckland's transport system enables growth in a way that supports communities and a high quality urban form	Support housing and employment growth in identified strategic growth areas (including Special Housing Areas)	2: Required to enable the development of an identified strategic growth area OR AT/Transport Agency obligation documented in an operative Plan Change1: Highly desirable to support the development of an identified strategic growth area0: Not related an identified strategic growth areaRED FLAG: Detrimental effect on the development of an identified strategic growth areaNote that for the purposes of this criteria, strategic growth areas include:- identified Strategic Housing Areas- greenfield growth areas identified in the Auckland Plan- priority infill growth areas identified in the Auckland Plan
	Improved connectivity to and within the city centre, metropolitan centres & town centres	2: Significantly improves connectivity for the city centre or a metropolitan centre or a town centre 1: Improves connectivity for the city centre or a metropolitan centre or a town centre 0: Not related to the connectivity of centres RED FLAG: Detrimental effect on the connectivity of centres
	Improved accessibility to employment	2: Significantly improves the accessibility to markets/areas of employment or economic growth 1: Improves the accessibility to markets/areas of employment or economic growth 0: No effect on the accessibility to employment areas RED FLAG: Detrimental effect on the accessibility to employment areas
	Aligns with the goals of the Auckland Plan's identified geographic priorities (City Centre and Southern Initiative)	2: Aligns with the goals for the Auckland Plan's identified geographic projects (City Centre or Southern Initiative area) 1: Aligns with the delivery of another identified AC geographic priority area 0: Not related to an AC geographic priority area RED FLAG: Detrimental to an AC geographic priority area
	Improved social and cultural outcomes and focus on those in most need	2: Reduces the financial burden for those most in need OR improves accessibility for young people/Māori (to employment or other activities) OR improves Māori social wellbeing 1: Provides improved transport choices for those with limited access to a car / most in need 0: Not related RED FLAG: Detrimental effect on social and cultural aspirations OR reduces transport choices for those most in need
	Contribute to place-making and helps achieve a high quality urban form	2: Significantly contributes to place-making and the achievement of a high quality urban form 1: Contributes to place-making and the achievement of a high quality urban form 0: No effect on place-making or the achievement of a high quality urban form RED FLAG: Detrimental effect on place-making or the achievement of a high quality urban form
Benefit 5a: Reduce adverse effects from Auckland's transport system - Safety	Reduce serious injuries and fatalities	2: Potential to significantly reduce the actual crash risk involving deaths & serious injuries OR part of a Model Walking/Cycling Community to make walking and cycling a safer transport choice 1: Potential to reduce transport related deaths and serious injuries 0: No effect on reducing deaths and serious injuries RED FLAG: Detrimental effect on deaths and serious injuries

Benefit	ITP Desired Outcome	ITP Scoring Criteria
	Improved personal security	2: Significantly improves personal security 1: Improves personal security 0: No effect on personal security RED FLAG: Detrimental effect on personal security
Benefit 5b: Reduce adverse effects from Auckland's transport system - Environmental & Health: including Māori Values (tangible and intangible)	Reduced greenhouse gas emissions	2: Significantly reduces greenhouse gas emissions 1: Reduces greenhouse gas emissions 0: No effect on greenhouse gas emissions RED FLAG: Detrimental effect on greenhouse gas emissions
	Reduced air and water pollutants	2: Significantly reduces air or water pollutants 1: Reduces air or water pollutants 0: No effect on air or water pollutants RED FLAG: Detrimental effect on air or water pollutants
	Increased health through active transport	2: Promotes a significant increase in the level of walking and cycling thereby produces positive health outcomes 1: Increases the level of walking and cycling 0: No effect on walking and cycling uptake RED FLAG: Detrimental effect on walking and cycling uptake
	Increased fuel resilience	**THIS IS A PROGRAMME MEASURE - Not proposing to use this to prioritise individual projects - remove from 'Calculator' but keep in Strategic Framework**
	Increased use of renewable fuels	2: Directly increases the level of renewable fuel use in Auckland 1: Indirectly increases the level of renewable fuel use in Auckland 0: No effect on renewable fuel use RED FLAG: Detrimental effect on the use of renewable fuel use
	Protect Māori Values (tangible and intangible)	Waterways: Adverse effects to be avoided, if not, remedy or mitigate adverse effects on Māori tangible and intangible values (mauri, wāhi tapu, historical, customary needs, customary resources, customary esteem) in a way that reflects the scale and degree of adverse effects. RED FLAG EXAMPLES: Mauri of the waterways is diminished, exercise of kaitiakitanga is reduced, customary resource is limited Methodology: Unitary Plan provisions, draft PAUP section 2.5.2 for definitions Notes: 1) Methodology already utilised in multi-criteria analysis for AMETI and Newmarket Station option assessment 2)Covered in Mauri model in environmental or ecosystem domain
		Places and sites of value and significance: Adverse effects to be avoided, if not, remedy or mitigate adverse effects on Māori tangible and intangible values (mauri, wāhi tapu, historical, customary needs, customary esteem) in a way that reflects the scale and degree of adverse effects. RED FLAG EXAMPLES: Destruction or partial destruction of wāhi tapu; adverse cumulative effects on the site; destruction or significant reduction of Māori values associated with the area. Methodology: Unitary Plan provisions, draft PAUP section 2.5.4 for definitions Notes: 1) Methodology already utilised in multi-criteria analysis for AMETI and Newmarket Station option assessment 2) Cultural covered in Mauri model regarding cultural wellbeing (hapū or iwi)

Benefit	ITP Desired Outcome	ITP Scoring Criteria
Benefit 5c: Reduce adverse effects from Auckland's transport system - Cultural: including Māori values (tangible and intangible)	Minimal cultural adverse effects from transport	Recognise protected customary activity and treaty settlement redress Description of Māori Values: Protected customary activities refer to recognition as prescribed in accordance with the Marine and Coastal area (Takutaimoana Act) 2011. Treaty Settlement redress as per Settlement Legislation for Tāmaki Makaurau tribes RED FLAG EXAMPLES: Diminishes ability to perform protected customary activities or impacts on the ability to exercise treaty redress Methodology: Recognised in draft PAUP provisions Notes: Methodology already utilised in multi criteria analysis for AMETI and Newmarket Station option assessment
		Protect Māori values (mauri, wāhi tapu, historical, customary resources, customary needs, customary esteem) associated with Māori cultural landscapes RED FLAG: Damage to Māori values associated with Māori cultural landscapes Methodology: Unitary Plan provisions, draft PAUP, section 2.5.4 and Regional Policy Statement Notes: Methodology already utilised in multi criteria analysis for AMETI and Newmarket Station option assessment

2.2 Effectiveness Assessment

The effectiveness evaluation assesses how well the proposed investment addresses the strategic issue or problem identified in the Strategic Fit evaluation. Activities are most effective if they provide long-term, integrated and enduring solutions.

- For a project to be considered as highly effective it must:
    - Improve integration within and between transport modes/services
    - Be part of a whole of network/One System approach
    - Be a key component of one of Auckland Transport's strategic plans (e.g. RPTP- the Regional Public Transport Plan) or part of a State Highway Strategy (e.g. RoNS - the Roads of National Significance Network Plan) or a key component of a Transport Agency-supported strategy, endorsed package, programme or plan
    - Support regional transport networks
    - Provide a solution that successfully integrates land transport, land use, other infrastructure and other activities
    - Provide a solution that significantly contributes to more than one benefit in the Integrated Transport Programme (ITP) Strategic Framework, where appropriate to the activity
    - Be optimised against multiple transport outcomes and objectives

For this RLTP, effectiveness has been assessed for all significant activities proposed in the ten years from 2015/16, based on the best available information. Inevitably, the assessment for activities which are already well advanced is more robust than for indicative projects in outer years.

HIGH	MEDIUM	LOW	NO RATING
Evidence is provided to demonstrate that the activity or combination of activities delivers on ***each*** of the following:	Evidence is provided to demonstrate that the activity or combination of activities delivers on ***each*** of the following:	Evidence is provided to demonstrate that the activity or combination of activities delivers on ***each*** of the following:	When there is no supporting evidence or the assessment has not been conducted
Covers all of the low and medium effectiveness criteria plus:	All the low effectiveness criteria, plus:		
• Improves integration within and between transport modes/services • Is part of a whole of network/One System approach • Is a key component of one of AT's strategic plans (e.g. the RPTP) or part of a State Highway Strategy (e.g. the RoNS Network Plan) or a key component of a Transport Agency-supported strategy, endorsed package, programme or plan • Supports regional transport networks • Provides a solution that successfully integrates land transport, land use, other infrastructure and other activities • Provides a solution that significantly contributes to more than one benefit in the ITP Strategic Framework, where appropriate to the activity • Is optimised against multiple transport outcomes and objectives	• Provides a long term solution with enduring benefits appropriate to the scale of the solution • Delivers a measurable impact or outcome in achieving the potential impact or outcome identified in the 'Strategic Fit' assessment. • Is a part of one of AT's strategic plans (e.g. the RPTP) or part of a State Highway Strategy (e.g. the RoNS Network Plan) or a part of a Transport Agency-supported strategy, endorsed package, programme or plan • Provides a transport solution that is consistent with the land use described in the Auckland Plan/Unitary Plan • Provides a solution that makes a contribution to more than one benefit in the ITP Strategic Framework, where appropriate to the activity	• Delivers the potential benefit or outcome identified in the 'Strategic Fit' assessment • An agreed level of service as described in the AMP or existing strategic document • The purpose and objectives of the Land Transport Management Act (LTMA) • Has defined and considered: - The relevant problems, issues & opportunities - The appropriate alternatives & options - Opportunities for collaboration - Any adverse effects or impacts • Is an affordable solution with a funding plan • The scale of the proposed solution is appropriate to the potential benefit or outcome in the Strategic Fit assessment • Avoids duplication of activities	

Efficiency

The efficiency rating is the Benefit/Cost ratio calculated according to the Transport Agency's Economic Evaluation Manual (EEM). The EEM calculation has been significantly reviewed for the 2015 planning round; key changes are:

- A revised discount rate of 6%, along with an extended evaluation period of 40 years
- The addition of wider economic benefits relating to imperfect competition and increased labour supply
- Greater emphasis on a multi-modal approach to evaluation, including:
    - Public transport evaluation periods made consistent with other modes
    - Equal values of travel time across modes for monetising the total value of travel time benefits
    - Discontinuing the use of default traffic growth rates. Evidence will be required to support any traffic growth assumptions

Overall these changes make the Efficiency evaluation more useful than it was in the past, especially for comparing different types of projects; for example a road project and a PT project will now be assessed with the same discount rate, evaluation period and value of time so the results will enable a valid comparison of the two projects.

While the Efficiency criterion is clearly defined, it is always the hardest criterion to assess because it relies on detailed information about costs and about expected outcomes and benefits. Like the Effectiveness evaluation, Efficiency needs to be refined, updated and re-assessed as activities progress through the planning phases, and in response to performance monitoring.

The output of the efficiency calculation is a benefit/cost ratio or BCR, which is converted to a profile as follows:

>5	High
3.0-4.9	Medium
1.0-2.9	Low

Appendix 3: Significance Policy

Background

3.1.1 Requirement to develop a Significance Policy

Section 106(2) of the Land Transport Management Act 2003 requires Auckland Transport to adopt a policy that determines significance in respect of:

(a) variations made to the regional land transport plan; and

(b) the activities that are included in the regional land transport plan.

In adopting its Significance Policy, Auckland Transport is acting in its role as the Regional Transport Committee for Auckland.

3.1.2 Legal definitions of significance

The following decisions defined in legislation as significant:

- Developing the Regional Land Transport Plan by June 2015 and reviewing it at least every six years thereafter (24);
- Replacing or varying this significance policy (24); and
- Any decision involving transfer of ownership or control of a strategic asset (25).

3.1.3 Auckland Council Significance Policy

Auckland Council adopted its Significance and Engagement Policy (26) in November 2014, following public consultation. AC's Significance and Engagement Policy is required by the Section 76AA of the Local Government Act 2002 and is distinct from Auckland Transport's Significance Policy.

Auckland Council's Significance and Engagement Policy applies to Auckland Transport through the CCO Accountability Policy.

Some extracts from Auckland Council's policy are quoted below for context:

"The council's thresholds relevant to determining significance are:

- creating a new group of activity;
- stopping carrying out a group of activity;
- increasing (by 33 per cent or more) or decreasing (by 20 per cent decrease or more) spending on a group of activity; [The groups of activities delivered by Auckland Transport are defined in Auckland Council's 2015 Long Term Plan and are: The Public Transport and Travel Demand Management; Roads and Footpaths; Parking and Enforcement.]
- Transferring the ownership or control of our strategic assets.

Where a decision meets this criteria it will be "significant" and will automatically trigger a requirement to consult."[...]

"Auckland Council has defined as strategic assets any Auckland Council or Auckland Transport owned asset which is integral to the functioning of:

- The public transport network, including Britomart; and
- The roading network."[...]

"The governing body and local boards will consider the following matters when determining the degree of significance of a decision:

- the number of people affected, the degree to which they are affected and the likely impact of a decision;
- whether this type of decision has a history of generating wide public interest within the local board area (for a local board decision) or Auckland or New Zealand generally (for a governing body decision);
- the impact of the decision on the governing body or local board ability to deliver on actions that contribute to the Auckland Plan, as well as any statutory responsibility;
- the impact of the decision on intended service levels for a group of activities, including the start/or stop of any group of activity;
- The degree to which the decision or proposal can be reversed should circumstances warrant."

3.2 Auckland Transport's Significance Policy

Auckland Transport is committed to involving the public in decisions which affect them.

Auckland Transport will undertake public consultation, in accordance with the consultation principles set out in the Local Government Act, for decisions which it decides are significant under this Significance Policy.

If a change to the RLTP is not considered significant, then the change can be made by Auckland Transport. This includes making the decision in an open and transparent way, and consulting with those affected, in a way appropriate to the scale of the decision.

The following decisions are significant:

- Decisions which are defined in legislation as significant.
- Any decision involving transfer of ownership or control of an asset defined by Auckland Council as a strategic asset.
- A new Auckland Transport activity or project, or a change to the scope of an Auckland Transport activity or project, which the Auckland Transport Board considers to represent a 30% or greater increase or a 20% or greater decrease in the nature of a group of activities. The groups of activities delivered by Auckland Transport are defined in Auckland Council's 2015 Long Term Plan and are:

    - The Public Transport and Travel Demand Management;
    - Roads and Footpaths;
    - Parking and Enforcement.
- The inclusion of a construction phase for a new state highway project with a total activity or project cost greater than 10 per cent of the activity class New and Improved Infrastructure for State Highways in this RLTP.
- Changes to the scope of an activity or project, whether delivered by Auckland Transport or the Transport Agency, that increase expenditure by more than $10 million and increases expenditure in the relevant activity class by more than 10 per cent, relative to the totals set out in Section [16] of this RLTP.
- Public Transport decisions which represent a significant variation to the Regional Public Transport Plan (see Section 3.2.1 below).
- Any other decision which Auckland Transport considers to be a significant variation to this Regional Land Transport Plan (see Section 3.2.2 below).

The following decisions will generally not be significant:

- Replacement of an activity or project by another activity or project of the same or substantially similar type;
- Cost or timing changes that do not affect the scope of an activity or project;
- A change arising from the decision of a third party (for example, the declaration or revocation of a State Highway by the Transport Agency);
- An increase in revenue or decrease in costs which does not significantly change the nature of a group of activities (as defined by Auckland Council) or activity class (as defined by the Transport Agency);
- A decision to progress emergency works.

3.2.1 Varying the Regional Public Transport Plan

Auckland Transport recognises that changes to the nature of the public transport network have historically been of high public interest, can affect residents and ratepayers both positively and negatively, and can be difficult or impossible to reverse. Therefore variations the Regional Public Transport Plan (10) are subject to a more restrictive Significance Policy, as set out in the RPTP.

3.2.2 Varying this Regional Land Transport Plan

Legislation provides for this Regional Land Transport Plan to remain in force for six years. However the Plan must be reviewed by Auckland Transport, having regard to the views of representative groups of land transport users and providers, after three years. Following the review, or where good reason exists, a variation to the RLTP may be prepared by Auckland Transport. The process of varying the RLTP involves the same steps as preparing the RLTP.

Where necessary due to changing circumstances, a variation to the RLTP may be prepared by Auckland Transport before the three-yearly review.

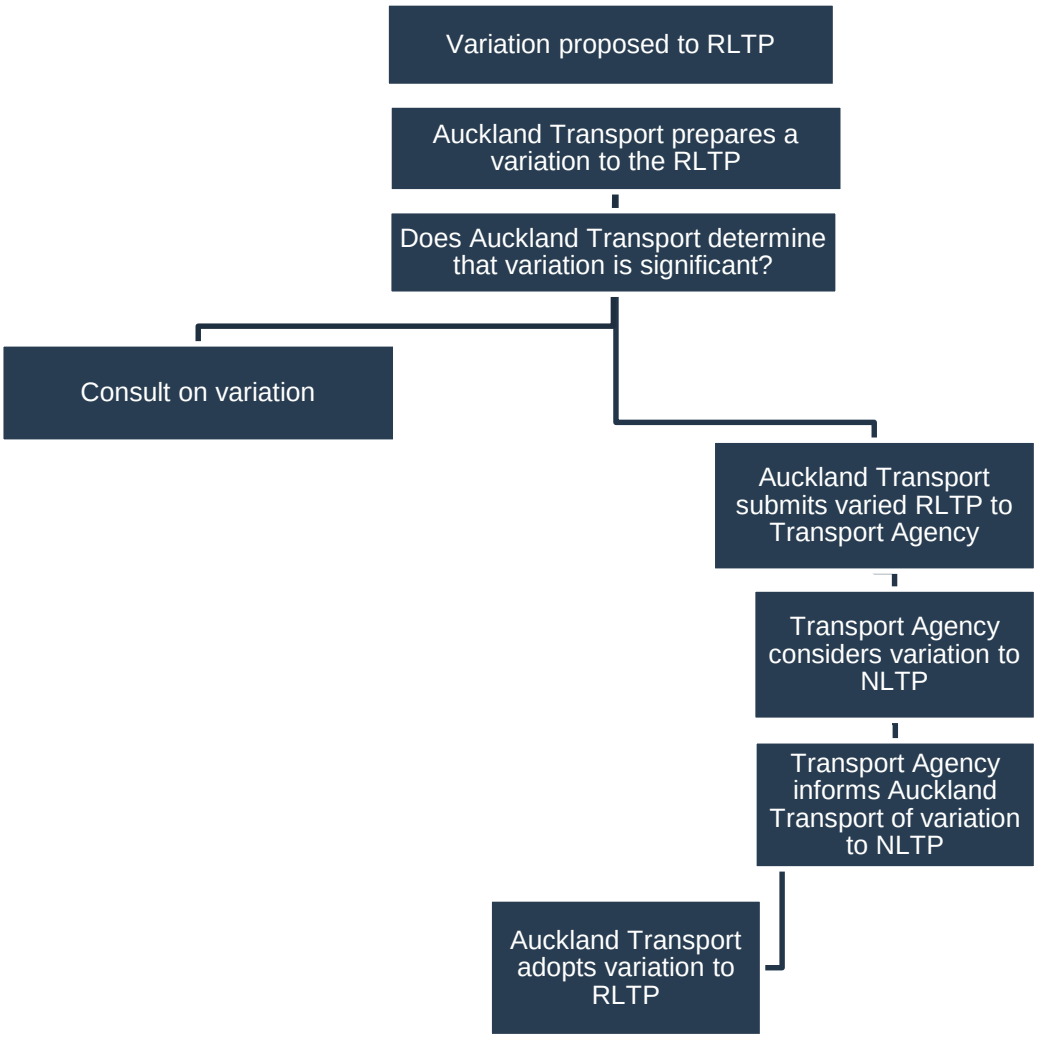
When considering the significance of a variation, Auckland Transport will consider the following criteria:

- The extent to which Auckland Transport has responsibility for the relevant activity or project which is subject to the variation;
- Whether the variation has already been consulted on under the Land Transport Management Act 2003 or the Local Government Act 2002, in which case further consultation may be unnecessary;
- The extent to which there is, or is likely to be, a change in the capacity of Auckland Transport to deliver its statutory objective, including giving effect to its Statement of Intent and this Regional Land Transport Plan;
- Alignment with Auckland Transport's plans and programme and the Government Policy Statement; and
- The costs and benefits of the consultation process.

Auckland Transport will use the following procedures in considering future variations to the RLTP, and this policy on significance:

- Where possible, and if it is not contrary to the consultation principles of the LGA, consultation on significant variations to this RLTP will be carried out via the Auckland Council Annual Plan;

Figure 29: Process to vary the Regional Land Transport Plan



3.3 Inclusion of activities in this RLTP

An activity must be named and prioritised in this Regional Land Transport Plan if it has a total cost of $5 million or more. Projects may either be included separately, or presented as part of a group, package or programme.

Glossary

AC: Auckland Council

ACN: Auckland Cycle Network

ACP: Accelerated Capital Programme

AEP: Auckland Electrification Project

AMETI: Auckland-Manukau Eastern Transport Initiative

AT: Auckland Transport

ATOC: Auckland Traffic Operations Centre

BCR: Benefit to cost ratio

BTN: Basic Transport Network

CBD: Central Business District

CCFAS: City Centre Future Access Study

CRL: City Rail Link

DART: Developing Auckland's Rail Transport

DOC: Department of Conservation

DSI: Deaths and Serious Injuries

EEM: The Transport Agency's Economic Evaluation Manual

EMU: Electric Multiple Units (Electric Trains)

FTN: Frequent Transit Network (key bus and ferry routes)

GHG: Greenhouse Gas

GPS: Government Policy Statement on land transport funding

HNO: Transport Agency Highways Network and Operations responsible for state highways

HPMV: High productivity motor vehicles

ITP: Integrated Transport Programme

KPIs: Key performance indicators

LBTCF: Local Board Transport Capital Fund

LGA: Local Government Act 2002

LTMA: Land Transport Management Act 2003

LTP: Long Term Plan

NLTF: National Land Transport Fund

NLTP: National Land Transport Programme

NORSGA: Northern Strategic Growth Area

PEVs: Plug-in electric Vehicles

PT: Public Transport

PUAP: Proposed Auckland Unity Plan

RLTP: Regional Land Transport Plan

RoNS: Roads of National Significance

RPTP: Regional Public Transport Plan

RTC: Regional Transport Committee

RTN: Rapid Transit Network (passenger rail and Northern Busway)

SH: State Highway

SHA: Special Housing Area

SOI: Statement of Intent

UNI: Upper North Island

UNIFS: Upper North Island Freight Study

Bibliography

1. **Ministry of Transport.** Governement Policy Statement on Land Transport 2015/16-2024/25. [Online] http://www.transport.govt.nz/ourwork/keystrategiesandplans/gpsonlandtransportfunding/gps2015/.

2. **Dearnely, Mathew.** Transport is Auckland's big issue. *NZ Herald.* [Online] 22 October 2013. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11143807.

3. **Ministry of Transport.** Household Travel Survey (Auckland urban area, 2011-2013, Mode share of trip legs). [Online] July 2014. http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7431.

4. **Auckland Council and Sinclair Knight Merz.** *City Centre Future Access Study.* 2012.

5. **Auckland Council.** *Auckland Plan.* 2012.

6. **Ministry of Transport.** Road Crash Statistics. [Online] http://www.transport.govt.nz/research/roadcrashstatistics/.

7. **International Traffic Safety Data and Analysis Group.** Road Safety Annual Report 2014. [Online] http://internationaltransportforum.org/Pub/pdf/14IrtadReport.pdf.

8. **Ministry of Transport.** Climate Change and Energy. [Online] http://www.transport.govt.nz/ourwork/climatechange/.

9. **- .** *Arterial Roads Deficiency Analysis.* 2014.

10. **Auckland Transport.** *Regional Public Transport Plan.* 2013.

11. **Road Safe Auckland.** *Strategic Guidance for Road Safety Planning.* s.l. : Unpublished, available from Auckland Transport Road Safety, 2014.

12. **Auckland Transport.** *Draft Parking Discussion Document.* 2014.

13. **Auckland Transport**. Auckland Transport Parking Strategy. [Online] May 2015. https://at.govt.nz/media/1119147/Auckland-Transport-Parking-Strategy-May-2015.pdf.

14. **Ministry of Transport.** Transport Monitoring Indicator Framework. [Online] http://www.transport.govt.nz/ourwork/tmif/infrastructureandinvestment/ii001/.

15. **Prime Minister of New Zealand.** *PM signals next generation of Auckland transport projects.* 2013.

16. **Ministry of Transport.** *National Freight Demand Study.* 2014.

17. **Auckland Council.** Draft Long-term Plan 2015-25 Consultation Document. [Online] http:/www.shapeauckland.co.nz/.

18. **Hinckson, E and Badland, H.** *School Travel Plan Evaluation Report.* s.l. : Auckland Regional Transport Authority, 2006.

19. **Statistics NZ.** *Census Journey To Work.* 2001, 2006, 2013.

20. **Ministry of Transport.** Fact Sheet: Cycling for Transport. Continuous Household Travel Survey. [Online] 2013. http://www.transport.govt.nz/assets/Import/Documents/Cycling-2013.pdf.

21. **Auckland Transport.** Auckland Transport Regional Cycle Monitoring Report. [Online] 2014. https://at.govt.nz/media/572288/AT-RegionalCycle-Monitoring-Regional-Summary2014.pdf.

22. **Ministry of Transport.** Safer Journeys. [Online] 2010. http://www.saferjourneys.govt.nz/.

23. **NZ Transport Agency.** *NZTA Work Categories and Activity Classes.*

24. Land Transport Management Act 2003. [Online] [Cited: 4 October 2014.]

25. Local Government Act. [Online] 2002. [Cited: 1 April 2014.]

26. **Auckland Council.** Significance and Engagement Policy. [Online] November 2014. http://www.shapeauckland.co.nz/consultations/significance-and-engagement-policy/documents/.