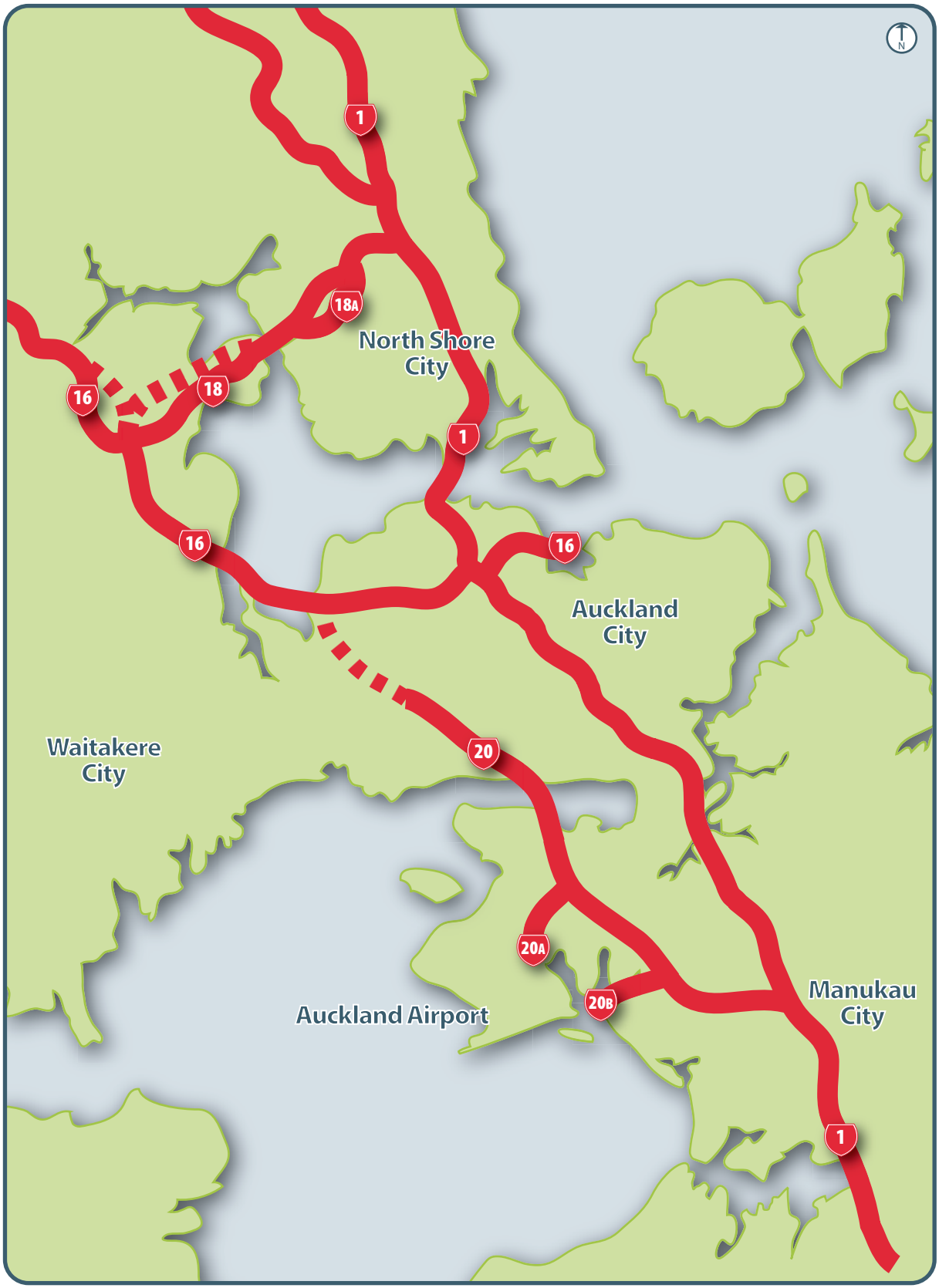
Western Ring Route (North-West) Network Plan

Final September 2010



Contents

Executive Summary

Auckland's economic growth is fundamental to New Zealand's economic growth. Auckland provides a substantial market for New Zealand producers and manufacturers and it produces a wide range of products and services for regional, national and international markets. It is the key entry point for tourists visiting New Zealand and its Waitemata sea port handles the greatest amount of imports to the country by value. It is the country's financial hub.

Auckland will continue to grow as people and resources gravitate to its financial, technological, service and market mass. It is expected that most of this growth will be within the boundaries of the current Metropolitan Urban Limit (MUL). The growth strategy intends to accommodate a significant proportion of the growth through intensification of existing urban land use at key nodes and along transport corridors and the WRR RoNS is a fundamental part of this planned growth.

To ensure the Network Plan has full buy-in from Auckland Regional Transport Authority (ARTA), Auckland City Council and Waitakere City Council, the Network Plan has included full consideration and inclusion of regional policy and plans and collaboration with ARTA and Auckland and Waitakere City Councils officers and political representatives.

The Network Plan confirms that the WRR project has a strong strategic fit with the development of the Auckland regional area and transportation network for New Zealand. This includes the timing of the project relative to growth in Auckland and transport demand in the sub-regional area.

Due to a long planning and alignment process for the Western Ring Route, the project is also well integrated with the sub-regional land use planning (including intensification of sub-regional centres) and transport planning (including balancing both inter-regional and intra-regional connectivity). This planning is connected across the RMA (land use planning), LTMA (transport planning and funding under the NLTP) and LGA (funding / delivery).

There are therefore a large number of projects planned and committed to in the sub-regional network (both transport and land use), that will ensure the optimisation of the WRR in synch with its estimated completion date of around 2016.

Ensuring ongoing alignment of these projects will require ongoing case management working with the new Auckland Council and other stakeholders. This will include influencing the form of the Auckland spatial plan and next LTCCP / RLTS. Political and executive structures are already in place to ensure that this occurs.

There are some gaps in network optimisation and issues which will need to be managed. The NZTA will work collaboratively with Auckland parties to ensure that these issues are addressed.

The Western Ring Route (WRR) will connect the Southwestern (SH20), Northwestern (SH16) and Upper Harbour (SH18) motorways to provide a strategic alternative to SH1 and the Auckland Harbour Bridge. It will provide a motorway link from Auckland CBD to the airport and enable greater movement of goods and people.

The north-west section of the Western Ring Route is a key component of the overall Western Ring Route. This section includes SH20 Waterview Connection, SH16 Northwestern Motorway Improvements, SH18 Hobsonville Deviation and SH16 Brigham Creek Extension.

Network plans represent the integrated planning sought by the Government Policy Statement (GPS) for a Road of National Significance (RoNS).

The key purpose of the Network Plan is to support and document ongoing integrated planning and to optimise the benefits and decision making for the north-west section of the WRR. This includes the integration and optimisation with the local network and associated activities and infrastructure within the wider Auckland network and region.

The Network Plan has no formal or statutory status in a planning sense. However through its consolidation of regional and national land use and transport policy and plans and NZTA project outcomes as applied at a sub regional level, it can provide the mechanism to inform integrated land use and funding decision making processes.

The three main components of the Network Plan are:

1 Prioritising transport planning through consolidating regional and national strategy;

2 Identifying issues and opportunities associated with SH16 and SH18 upgrades and SH20 Waterview implementation;

3 An optimisation analysis using the strategic framework and applying the issues and opportunities arising from the implementation of the WRR (North West).

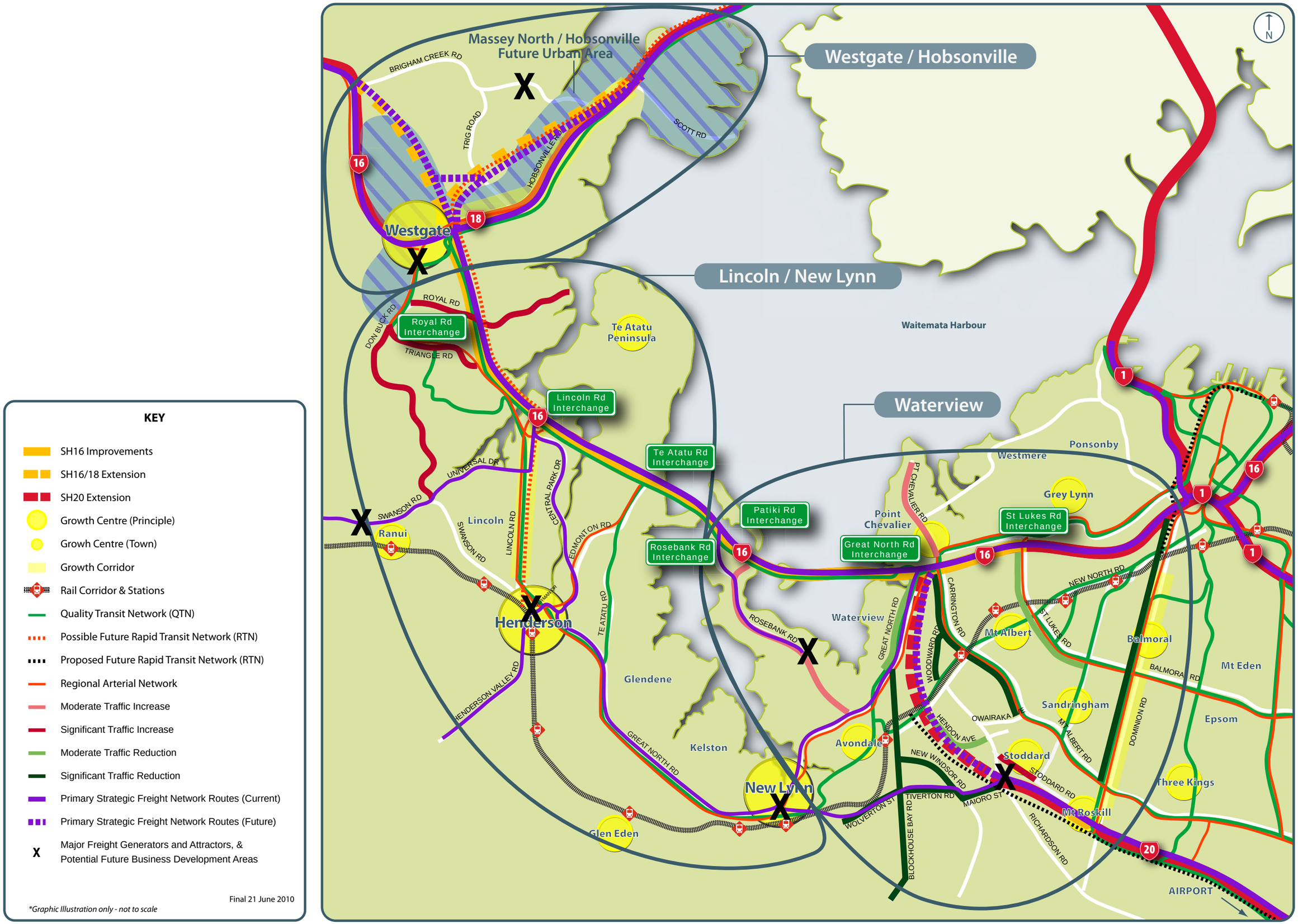
The strategic framework, illustrated in the Network Plan maps, clearly prioritises future transport activities and the optimisation analysis will inform future funding and programming and land use decisions.

It is intended that the key stakeholders that have provided input such as New Zealand Transport Agency (NZTA), Auckland Regional Transport Authority (ARTA), Auckland City Council (ACC) and Waitakere City Council (WCC) will be the key audience for this document although a wider stakeholder audience may find it useful.

The Network Plan is a living document and therefore will evolve as transport activities and land use changes are implemented and as the new Auckland governance structure is put in place.

For now at least, the Network Plan flags the need to commit funding for the completion of Lincoln Road and Te Atatu Road Corridors and the Tiverton/Wolverton corridor as key priorities for the sub regional transport network.

The Auckland Region governance change, in terms of this Network Plan, is seen as an opportunity rather than a risk or issue, as by approaching the development of the Network Plan from mostly a regional perspective, the Network Plan seeks to reinforce priority already set through strategy and plans at a regional level.



Western Ring Route - Northwestern Sector

1.0 *Introduction*

1.1 Background

In May 2009, the Government released the current Government Policy Statement (GPS) on Land Transport Funding. The key priority for the GPS is generating economic growth and productivity. Effective transportation networks enable economic growth and productivity while congestion negatively impacts on the effective operation of these networks. Improving key networks and reducing congestion are key outcomes sought by the GPS, as well as reductions to deaths and serious injuries as a result of road crashes.

Seven Roads of National Significance (RoNS) have been identified to provide a focus for land transport investment. One of the ways that the New Zealand Transport Agency (NZTA) will give effect to the GPS is through the delivery of the RoNS.

The Western Ring Route (North West) is identified as one of the seven RoNS.

The GPS also directs the NZTA to undertake integrated planning to ensure that decisions made in relation to land use, transport and urban design collectively contribute to the efficient use of public funds. In turn, the use of these funds will need to contribute towards achieving the government's transport objectives and wider economic outcomes.

The GPS states that to achieve integration, transport strategies and packages of activities should be developed alongside, and be clearly connected to, land use strategies and implementation plans by:

- Considering future growth;
- Safeguarding future transport corridors;
- Ensuring growth meets the cost of infrastructure impacts;
- Integrating within and between modes.

1.2 Roads of National Significance (RoNS)

The Western Ring Route is one of seven RoNS in the country (see Figure 1-1).

Figure 1-1 – Roads of National Significance

National RONs Network Map

2.0 *Strategic Context and RoNS Objectives*

2.1 Strategic Context

Figure 2-1 – Western Ring Route

Auckland's economic growth is fundamental to New Zealand's economic growth. Auckland provides a substantial market for New Zealand producers and manufacturers and it produces a wide range of products and services for regional, national and international markets. It is the key entry point for tourists visiting New Zealand and its Waitemata sea port handles the greatest amount of imports to the country by value. It is the country's financial hub.

Auckland will continue to grow as people and resources gravitate to its financial, technological, service and market mass. The Auckland Regional Growth Strategy suggests population increases of 850,000 people over the next 50 years and it is expected that most of this growth will be within the boundaries of the current Metropolitan Urban Limit (MUL). The growth strategy intends to accommodate a significant proportion of the growth through intensification of existing urban land use at key nodes and along transport corridors.

The Western Ring Route will connect the Southwestern (SH20), Northwestern (SH16) and Upper Harbour (SH18) motorways to provide a strategic alternative to SH1 and the Auckland Harbour Bridge. This will better connect the north-west and south of the Auckland region. It will provide a motorway link from Auckland CBD to the airport and help boost the economy by enabling goods and people to be transported more efficiently.

The north-west section of the Western Ring Route is a key component of the overall Western Ring Route. This section includes the Waterview (State Highway 20) project, improvements to State Highway 16 (from St Lukes in the east to Westgate in the west). It also includes the extension of SH16 beyond Westgate and the bypass of SH18 at Westgate. These are described below.

The future growth corridors and centres are identified in the Network Plan maps. Of those centres, the key residential and mix use centres previously or currently undergoing plan change processes are:

- Avondale
- Pt. Chevalier
- Mt. Albert
- New Lynn
- Westgate

The key business centres, as identified in the RLTS 2010 are:

- Westgate
- Henderson
- Swanson
- Rosebank
- New Lynn

2.2 RoNS Objectives

The RoNS objectives that support population growth and dispersion within the sub region include:

- To support sustainable growth and development of business and residential centres adjacent to SH16 as identified in strategic Auckland planning documents;
- To improve freight movements through west Auckland;
- To improve public transport along SH16;
- To improve the safety, reliability, capacity and efficiency of SH16;
- To support wider traffic management techniques including Travel Demand Management that will help sustain the benefits of the project;
- Better connect Waitakere and North Shore cities;

- Increase capacity for motorists travelling to/from the northwest, including Albany and Greenhithe in North Shore City, Hobsonville and Massey in Waitakere City and Kumeu in Rodney District;
- Reduce travel times;
- Reduce congestion on Hobsonville Road and SH16 north of Don Buck Road;
- Include connections for pedestrians, cyclists and local traffic;
- Provide the motorway transport infrastructure to support Waitakere's planned urban growth;
- Give access to a new housing development at the Hobsonville airbase;
- Support economic development in the growing northwest of Auckland;
- Create a key link in the Western Ring Route that when completed, will help to ease congestion on SH1;
- Improves traffic flow on local roads by separating motorway traffic and local traffic with new overbridges;
- In the future will provide a key link to Auckland International Airport from the Auckland CBD.

2.3 Components of the Western Ring Route

Waterview Connection Features

- A combined tunnel and surface option:

  A bored tunnel under New North Road and Avondale Heights;

  A cut and cover tunnel under Great North Road;

  In the south, it will be built at surface like the neighbouring Mt Roskill motorway;

- It will be adjacent to an area already set aside for a rail line;
- Begins where SH20 ends at Maioro interchange in Mt Roskill, travels through the suburbs of Mt Albert and Avondale and connects to SH16, adjacent to Great North Road;
- The motorway will have bus shoulders and capacity for three lanes in each direction;
- Existing pedestrian and cycle links will be retained and Hendon Park pedestrian and cycle link will be built;
- At the southern end, the Mt Roskill cycleway will be extended to connect with Richardson Road;
- Extending Maioro Street to connect to Stoddard Road will provide a new pedestrian (and vehicle) connection between New Windsor and Mt Roskill/Wesley areas of Auckland.

Figure 2.2 – Waterview Connection

Northwestern Motorway (SH 16) Improvements Features

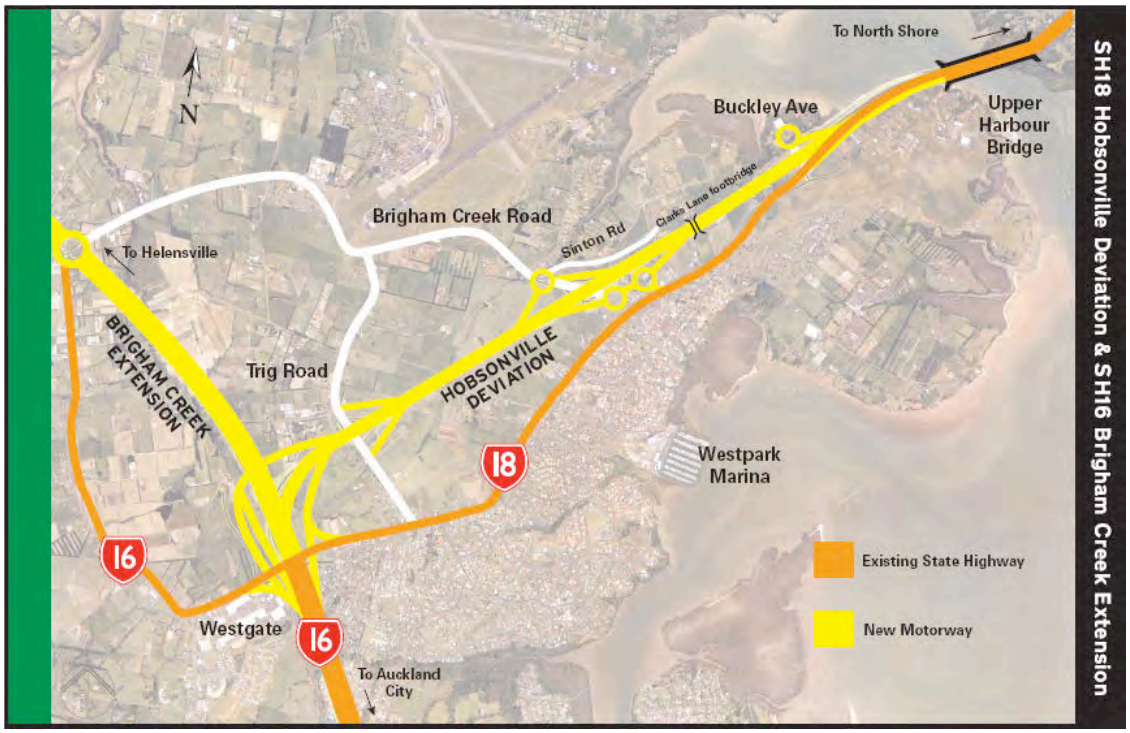
- Widen the causeway to add lanes and create more capacity;
- Raise the causeway and the adjacent cycleway to reduce flooding;
- Widen and improve the Te Atatu Road Interchange;
- Construct new bus priority lanes on the motorway shoulders;
- Improve access across the motorway for pedestrians and cyclists.

Figure 2.3 – SH16 Improvements

SH16 Extension and SH 18 Hobsonville Deviation Features

- 6 km, 4-lane SH18 motorway through Hobsonville;
- 3 km, 2-lane SH16 motorway to Brigham Creek Road;
- 4 interchanges at Hobsonville Road, Trig Road, Brigham Creek Road (north and south) and Squadron Drive;
- 1 flyover at Hobsonville Road to connect SH16 to the new SH18;
- 5 bridges at Hobsonville Road, Trig Road, Brigham Creek Road, Squadron Drive and Totara Creek;
- 1 cable stay pedestrian/cyclist bridge at Clarks Lane;
- 4 new roundabouts along Brigham Creek Road;
- Sinton Road extended to a new roundabout with Brigham Creek Road.

Figure 2.4 – SH16 Extension and SH18 Hobsonville Deviation



3.0 *The Network Plan*

3.1 Purpose of the Network Plan

Network plans represent the integrated planning sought by the GPS for a Road of National Significance (RoNS). Refer to Figure 1-1 showing location of RoNS.

The key purpose of the Network Plan is to support and document ongoing integrated planning and to optimise the benefits and decision making for WRR. This includes the integration and optimisation with the local network and associated activities and infrastructure within the wider Auckland network and region.

The Network Plan for the WRR (North West) will not duplicate strategy already completed but consolidate key aspects of existing plans, strategies and processes into one planning framework.

The three main components of the Network Plan are:

1. Prioritising transport planning through consolidating regional and national strategy;

2. Identifying issues and opportunities associated with SH16 and SH18 upgrades and SH20 Waterview implementation;

3. An optimisation analysis using the strategic framework and applying the issues and opportunities arising from the implementation of the WRR (North West).

3.2 Objectives of the Network Plan

The objectives of the Network Plan are to:

- Integrate and optimise key aspects of land use, transportation and funding (utilising existing plans and strategies) associated with the RoNS;

- Identify the critical questions, issues, risks and opportunities relating to the RoNS, and the integration of these routes with the wider network, including the priority and processes required;

- Identify the key packages, activities and processes to be implemented to further optimise the implementation of the RoNS, including life after completion of the RoNS;

- Align, support and guide other key planning documents and processes, both statutory and non-statutory, to ensure an integrated approach;

- Support the package of activities associated with RoNS by influencing future planning and investment at the local, regional and national levels;

- Identify the performance indicators, methodologies and frequency of reporting that will be tracked before, during and after construction.

4.0 *Strategic Policy Context*

Key inputs for the Network plan are national and regional land use and transport planning strategic / policy documents.

Figure 4.1 : National and Regional Policy Alignment

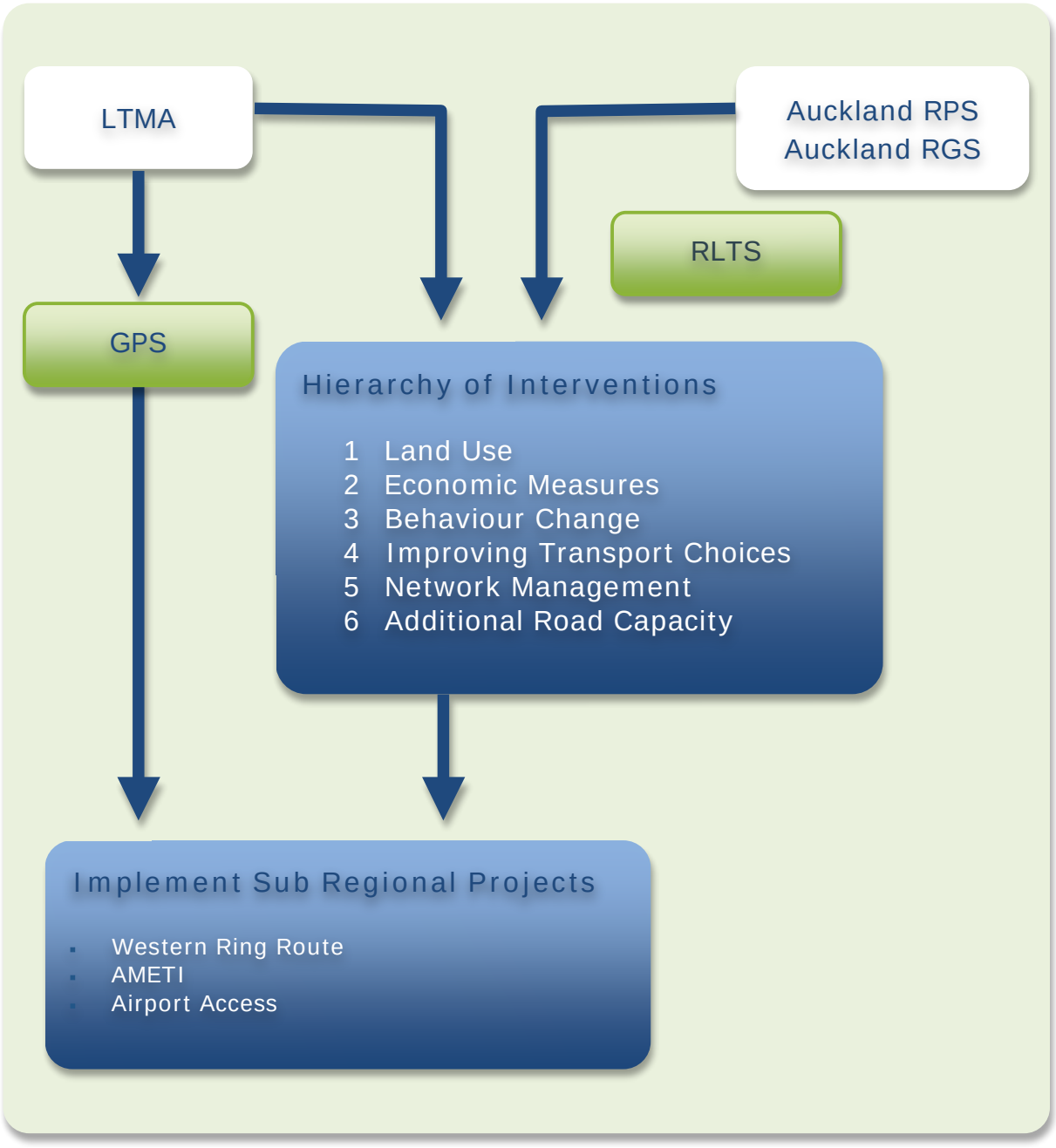
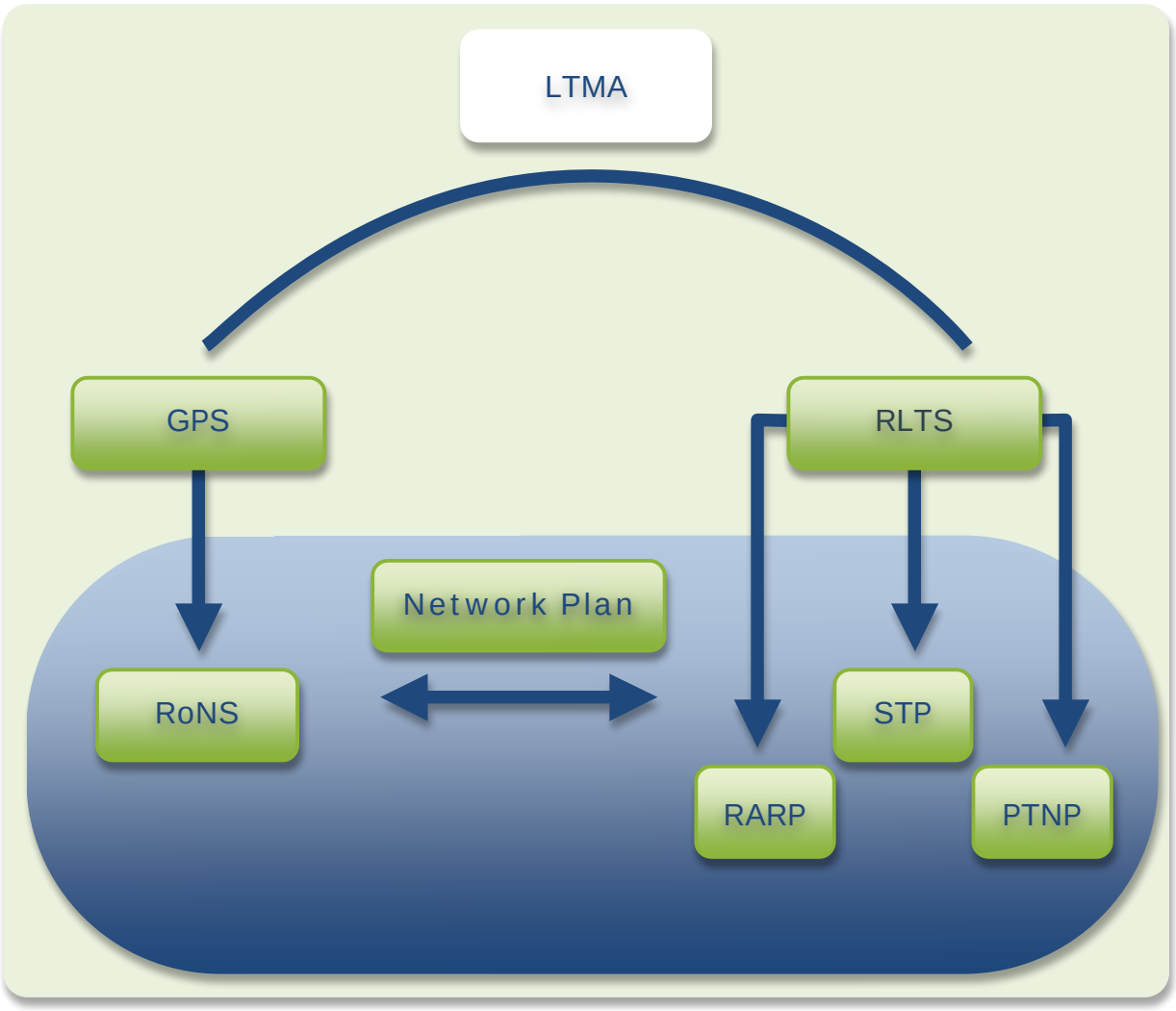


Figure 4.2 : Strategic Context (for full strategy names see "Implementation of Regional Plan")



4.1 National Policy

The Land Transport Management Act, 2003 (LTMA)

The LTMA directs the planning, funding and management of land transport. The purpose of the Act is to contribute to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system.

The LTMA directs regional land transport programmes to contribute to:

- Ensuring environmental sustainability;
- Assisting economic development;
- Assisting safety and personal security;
- Improving access and mobility;
- Protecting and promoting public health.

The New Zealand Transport Strategy 2008 (NZTS)

The NZTS is a non statutory document and provides a long term aspirational policy context. The document contains national targets that are organised around the five objectives and outcome areas under the LTMA.

The Government Policy Statement (GPS)

As a statutory document prescribed by the LTMA, the GPS provides guidance on shorter term[1] land transport planning and funding and identifies "Ensuring Integrated Planning" as key means to contribute to the efficient use of public funds and achieve the government's objectives for transport and New Zealand. More specifically, the GPS seeks to ensure that:

- Future growth is considered in planning the transport system;
- Future transport corridors are safeguarded from other development;
- Growth meets the cost of the infrastructural impact such growth generates;
- Better integration between and within modes.

The GPS makes further reference to integrated planning as outlined in section 8 References and Supporting Information.

The NZTA "Investment and Revenue Strategy"

The strategy, based on the GPS, is a prioritisation tool directing investment into activities that make the most significant contribution to one or more of:

- RoNS and local road critical to RoNS;
- Key freight and tourism routes;
- Key urban arterials;
- Public transport initiatives to ease severe congestion;
- 'model' urban walking and cycling communities;
- Making better use of the existing transport infrastructure;
- Optimising the existing capacity of, and service levels on, highly trafficked roads.

When approving funding for transport activities or packages of activities, the NZTA is required to ensure they:

- Give effect to the GPS;
- Take account of any relevant strategies or policies (eg RLTS);
- Contribute to the LTMA's purpose and objectives;
- Comply with any consultation required by the LTMA.

The NZTA use three key assessment criteria to determine whether a transport activity will be included in the National Land Transport Programme (NLTP) and, if so, the

[1] *The GPS describes Government's funding priorities over a six year period.*

degree to which it will be prioritised within the NLTP, and then whether it will be approved for funding. The criteria are:

- Strategic fit;
- Effectiveness;
- Economic efficiency.

4.2 Regional Policy

Regional Development and Growth Management

The 2010 Auckland RLTS "Trends and Issues" paper (ref. chp 6, working paper 8, ARLTS) summaries the longer term trends and challenges for the region in terms of population growth, stating:

"The growth in the Auckland region's population in the near term and longer term is the main driver for producing demands on the region's transport resources. Some of the key information illustrating the population related challenges includes the following:

- *Auckland is the nation's largest and fastest growing region. Between 2001 and 2006, the population increased by about 144,177 people (an increase of 12.4 per cent since 2001). This made up half of all the population growth in New Zealand during that time.*
- *In 2006, 1.3m people were living in Auckland, representing 32 per cent of New Zealand's population.*
- *Current projections suggest that the region's population will increase from an*
- *Existing 1.3m to 2.3m people by 2051 (based on 2006 medium scenario population projection as shown in Figure 4).*
- *By 2031, the population of Auckland is estimated to grow by a further 550,000 people – the current population of the Canterbury region.*

In meeting the transport related demands of population growth it is recognised that the use and implementation of the transport network can directly affect other areas of interest to the region. These other areas impacted by transport include the use of nonrenewable energy sources and protecting the quality of the environment.

Population growth purely in absolute terms is not the only challenge facing the region.

There are other related challenges concerning the future make-up of the population that will also require a potential response in terms of the way in which particular transport demands are met. These include:

- *An aging population characterised by declining birth rates and increasing life expectancy,*
- *Population distribution between urban and rural areas,*
- *Greater ethnic diversity particularly in urban areas".*

There is currently no regional 'consensus' on a future land use scenario for the region, however for the purpose of developing the Auckland RLTS, one scenario was agreed upon to use as a basis for modelling outcomes. This scenario has been used in the development of the network plan.

Rail

In the "Turn Around Plan", KiwiRail confirms that the core role for the Auckland Metro rail network is commuters (or passenger transport). Supporting that role, the Western Line has been continually upgraded over the past few years mainly in terms of 'double tracking' and station upgrades. Station upgrades range from basic upgrades of platform, signage and cover to major construction works such as the New Lynn 'TOD'. The Kingsland Station upgrade is to be utilised during the Rugby World Cup.

There are significant patronage increases estimated from this major upgrade programme and these have been assumed in the RoNS traffic modelling. While the Western Rail Line is dedicated to passenger movements during the day, the line carries freight evenings/early mornings.

The NZTA has included the Avondale-Southdown rail corridor in its SH20 designation to future proof as part of the regional strategic network.

Regional Land Transport Strategy 2010

The 2010 Auckland Regional Land Transport Strategy (the RLTS) is a statutory document prepared under the Land Transport Management Act (LTMA) 2003. The RLTS sets the direction for the region's transport system for the next 30 years.

Population growth is one of the key drivers in the future planning of the region's transport system and needs. Some of the key growth and transport trends that have been identified at the regional level that are relevant to the development of the network plan include:

- The existing population of around 1.4 million is projected to grow to 2.1 million by 2041;
- Auckland has a significant role in the national economy, generating 37 per cent of national GDP;
- Sub regional population and employment growth in the southern Waitakere and western isthmus area expected to grow – around 18,000 population increase southern Waitakere and equivalent increase in employment in western isthmus sector;
- Recent consolidation of households along Waitakere section of Western Ring route (north – west) and growth in commercial / industrial activities around Rosebank Road and Lincoln Road as evidenced in building consent records.

A key feature of the RLTS is the hierarchical approach that has been adopted in the implementation of the transport demand and supply policies. The hierarchy implies considering demand side policies before considering supply side policies that provide additional capacity to the transport system (similar to the NZTA "maintain, operate and build" IRS hierarchy). The priority implied by this hierarchy is not intended to be absolute (i.e. it is not intended that all initiatives at any level of the hierarchy should be exhausted before moving to the next level). As part of the policy hierarchy implementation, it is also recognised that the demand side

initiatives will often require supporting supply side improvements to be fully effective.

The elements of the hierarchy, and how they relate to the Western Ring Route (north-west), are described below and are illustrated in the Network Plan maps.

Land Use

This Network Plan will follow the priority order of the RLTS whereby the highest priority consideration of the RLTS 'Hierarchy of Interventions' (HoI) will be land use. This category is of particular importance to a region experiencing significant population growth. As well as identifying current town centres and transport nodes, agreed future growth centres and corridors have also been identified on the Network Plan map.

One example of a potential positive land use/transport planning integration effect is the successful implementation of the Massey North area in which the residential population 'live, work and play' in the Massey North area and thereby reduce the level of dependence upon the transport network, particularly the state highway traffic movement in to and out of the CBD.

One obvious link between future land use and transport planning in the network plan is future residential intensification and in some cases employment activities around existing rail stations and along Quality Transit Network routes. These corridors and nodes, identified for future intensification, are illustrated in the Network Plan maps.

Although there is no current 'regional consensus' for future land use in Auckland Region, for the purposes of this Network Plan, the Land Use Scenario (High Density Centres, Corridors and Future Urban Areas) used for the Auckland RLTS modelling, will be used as the future land use base for this Network Plan.

Economic Measures

This category in the RLTS includes measures such as road pricing or congestion charging and also includes consideration of issues such as passenger transport fare levels where, if applied, may influence transport decisions. The policies contained in this category, if and when applied, will be applied to the region as a whole. Therefore the Network Plan will not include reference to this policy category.

Behaviour Change

The third priority category relates to how people may change their travel behaviours due to 'soft measures' such as travel planning, promotional campaigns etc.

The network plan will mainly consider TDM in areas of future residential and employment intensification. The ARTA school travel plan (STP) programme, as collectively the largest and most significant travel behaviour change programme in the region, is identified in the Network Plan maps.

Improving Transport Choices

Closely linked with travel behaviour change (TBhC) is providing infrastructure and services in order to facilitate travel behaviour change. TBhC processes often identify or confirm existing transport deficiencies and demands, particularly for passenger transport, cycling and walking.

This category will include the development of the passenger transport network (particularly the 'Rapid Transport Network' and the 'Quality Transport Network'), the extension of the existing cycle network and improvements to the walking environment, particularly at town centres and around transport nodes.

Existing and future QTN and RTN routes and existing and proposed cycle routes are identified on the network plan map. For this sub-regional area, the only existing 'RTN' is the Western rail line. 'RTN' routes are PT routes with a permanent right of way, such as rail lines or a busway. QTN routes typically consist of bus priority lanes, traffic signals and 'real time information' along arterials roads, with priority operating hours generally between 7am and 9am CBD inbound and 4pm and 6pm CBD outbound.

Network Management

Network management initiatives will focus primarily on those roads that make up the "Regional Arterial Road Network" (RARN) and those parts of the transport network most effected (increased or reduced traffic) by the SH20/16/18 improvements. All roads identified in the ARTA "Regional Arterial Road Plan" (RARP) are assigned a 'focus' or primary function or deficiency. The categories are safety, general traffic, passenger transport, cycling or freight. In some cases roads have been assigned multiple foci, for instance Lincoln Road has all categories assigned.

By overlaying the respective focus areas indicated in the RARP with parts of the regional arterial network most affected by the SH20/16/18 improvements, it will be possible to identify where areas of future demand meet areas of opportunity or areas of deficiency meet area with issues.

Additional Road Capacity

Any programmed works that balance roading network capacity, particularly interchange upgrades, have been identified in the network plan.

4.3 Regional Transport Plans

The RLTS identifies key implementation plans that will give effect to the RLTS. Much of the Network Plan has been informed by these regional plans.

Referenced in the policy section of the 2010 RLTS, they are:

- Regional Public Transport Network Plan (PTNP)
- Regional Road Safety Plan (RRSP)
- Regional Arterial Road Plan (RARP)
- Rail Safety Plan (RSP)
- Regional Freight Network
- Sustainable Transport Plan (STP)
- Regional Parking Strategy
- Regional Speed Management Strategy
- Regional Public Transport Plan (RPTP)

This regional policy is illustrated in the sector maps in section 5. Some maps also illustrate 'with' and 'without' RoNS "average daily traffic" (ADT) data reflecting the relative future difference in traffic volumes on some routes.

5.0 *Identification and Optimisation of Network Activities*

This section outlines the key transport activities that are:

1 Committed to (up to 2012) by way of the NLTP or RLTP;

2 Planned for up to 30 years out by way of regional policy;

3 Identified by ARTA or Auckland City or Waitakere City Council as a localised priority not yet identified in any regional policy or plans.

These activities are presented as three 'tiers'.

Tier One

The first tier (or 'committed' activities) are those already included in the NLTP (2009-12) and the RLTP (2009-12), representing a relatively short term (current to three year period). These activities have not been given an indicative rating.

Tier Two

The second tier includes those activities currently in regional strategies and plans not already implemented nor in the NLTP or RLTP and represent a medium term (approximately between three and 10 years) implementation period. The Network Plan refers to the regional strategy or plan the activity appears in and provides a cost estimate range. Only tier two activities have been given an indicative rating based on current GPS/PPFM funding priorities and the relative impact (issue or opportunity) bought about by the RoNS.

Tier Three

The third tier (referred to as 'new') includes those activities not in the NLTP, RLTP or in any regional strategies and plans. These activities have been presented by Auckland City Council and Waitakere City Council for consideration. Some of these activities may be considered for implementation in the medium term and others may be longer term (beyond 10 Years).

Table 5.1 : Network Activities

Tier 1 Activities - "Committed" Activities (2009-2012)	Network Plan Area	NLTP Estimate ($,000)
NLTP – ARTA/TA – Local Roads		**Estimate ($,000)**
Great North Road Corridor Study (S)	Waterview	150
Tiverton Rd/Wolverton St Route Upgrade (C)	Waterview	13,547
Sandringham Road Corridor (C & P)	Waterview	7,759
Dominion Road PT (I)	Waterview	700
Dominion Road PT (D)	Waterview	700
Dominion Road PT (C & P)	Waterview	65,458

Cricket Avenue Extension (D)	Waterview	200
Cricket Avenue Extension (C & P)	Waterview	3,400
New Lynn TOD Stage 1 (C)	Lincoln/New Lynn	30,180
New Lynn TOD Stage 2 (C)	Lincoln/New Lynn	40,048
SH18 – Buckley Interchange (C)	Westgate/Hobson	823
Hobsonville Interchange (C)	Westgate/Hobson	1,338
NLTP – ARTA/TA Passenger Transport Infrastructure		
Sandringham Road Corridor (D)	Waterview	593
New Lynn TOD PT Interchange (C)	Lincoln/New Lynn	10,829
Glen Eden Park and Ride (C)	Lincoln/New Lynn	2,274
Avondale Rail Station (C)	Waterview	1,520
New Lynn Rail Station (C)	Lincoln/New Lynn	5,400
Kingsland Station Enhancements (C)	Waterview	6,018
NLTP – ARTA/TA Demand Management		
Region-Wide Demand Management		N/A
Region-Wide School Travel Plan Infrastructure		N/A
NLTP – Council/TA – Cycle and Walking		
City wide walking and cycling infrastructure		N/A
Cycleway – Triangle Rd – Central Park Dr (D)	Lincoln/New Lynn	563
Cycleway – Twin Streams Walk & Cycleway (C)	Lincoln/New Lynn	3,400
Hobsonville Road Cycleway (C)	Westgate/Hobson	720
Pioneer St – West Wave Walk & Cycleway (C)	Lincoln/New Lynn	629
Westgate Pedestrian & Cycle Bridge (C)	Westgate/Hobson	1,852
NZTA Highways and Network Operations New & Improved Infrastructure for State Highways		
Hobsonville Deviation (C & P)	Westgate/Hobson	214,577
SH16 Brigham Creek Ext (C)	Westgate/Hobson	19,000
Waterview Connection (I)	Waterview	3,440
Waterview Connection (D)	Waterview	22,666
Waterview Connection (C & P) (Includes Hendon Park C & W Bridge)	Waterview	1,106,961
WRR Ramp Signalling (C)		17,088
Don Buck Rd – Huapai Lighting (D)	Lincoln/New Lynn	33
Don Buck Rd – Huapai Lighting (C)	Lincoln/New Lynn	887

Lincoln Rd I/C Upgrade (I)	Lincoln/New Lynn	1,560
Lincoln Rd I/C Upgrade (D)	Lincoln/New Lynn	1,623
Lincoln Rd I/C Upgrade (C & P)	Lincoln/New Lynn	51,870
St Lukes – Te Atatu (I)	Waterview	27,413
St Lukes – Te Atatu (C & P)	Waterview	580,088
Lincoln Rd I/C Priority Improvements (I)	Lincoln/New Lynn	206
Lincoln Rd I/C Priority Improvements (D)	Lincoln/New Lynn	212
SH16 Bus Shoulder Improvement Group (I)		212
SH16 Bus Shoulder Improvement Group (D)		546
SH16 Bus Shoulder Improvement Group (C)		4,182
Te Atatu I/C Priority Improvements (I)	Lincoln/New Lynn	206
Te Atatu I/C Priority Improvements (D)	Lincoln/New Lynn	212
Te Atatu I/C Priority Improvements (C)	Lincoln/New Lynn	4,499
SH16 (Stage 3): Te Atatu – Lincoln Rd (I)	Lincoln/New Lynn	2,933
SH16 (Stage 3): Te Atatu – Lincoln Rd (D)	Lincoln/New Lynn	5,143
SH16 (Stage 3): Te Atatu – Lincoln Rd (C & P)	Lincoln/New Lynn	4,774
SH16 (Stage 4): Lincoln Rd – Hobsonville (I)	Westgate/Hobson	5,617
SH16 (Stage 4): Lincoln Rd – Hobsonville (D)	Westgate/Hobson	9,270
SH16 (Stage 4): Lincoln Rd – Hobsonville (C)	Westgate/Hobson	176,274
NZTA Highways and Network OperationsState Highway Walking & Cycling Facilities		
SH Northwestern Cycle Improvements (I)	Waterview	219
SH Northwestern Cycle Improvements (D)	Waterview	219
SH16 Westgate Crossing (I)	Westgate/Hobson	103
SH16 Westgate Crossing (D)	Westgate/Hobson	157
SH16 Westgate Crossing (C)	Westgate/Hobson	3,825
SH16 Kingsland Cycleway (D)	Waterview	103
SH16 Kingsland Cycleway (C)	Waterview	515
SH16 Hobsonville Rd to Kennedy's Rd (D)	Westgate/Hobson	20
SH16 Hobsonville Rd to Kennedy's Rd (C)	Westgate/Hobson	175
NZTA – Transport Planning		
SH18 Strategic Transport Improvements	Westgate/Hobson	350
Tier 2 Activities – Transport (3-10 year period)		
Strategy/Regional Plans		

Commercial/Freight Routes		
North Lincoln Road/Universal/Swanson Road	Lincoln/New Lynn	
Central Park/Edmonton/Alderman/Henderson Valley Road	Lincoln/New Lynn	
Great North Road/Rata Street	Lincoln/New Lynn	
Rosebank/New North/Richardson Roads	Waterview	
Tiverton Street/Wolverton Road	Waterview	
Passenger Transport		
Morningside Drive	Waterview	
St Lukes Road	Waterview	
Carrington/Mt Albert Roads	Waterview	
Rata/Great North Roads	Lincoln/New Lynn	
Lincoln Road	Lincoln/New Lynn	
Great North Road/Rata	Lincoln/New Lynn	
SH16 (Lincoln Road – Westgate)	Lincoln/New Lynn	
SH18	Westgate/Hobson	
Tiverton Street/Wolverton Road	Waterview	
Avondale - Southdown Designation	Waterview	
Te Atatu (interim) Park & Ride	Lincoln/New Lynn	
Hobsonville (interim) Park & Ride	Westgate/Hobson	
Lincoln Rd (interim) Park & Ride	Lincoln/New Lynn	
Westgate Park & Ride Terminal	Westgate/Hobson	
Walking & Cycling		
Westgate Cycleways	Westgate/Hobson	
Don Buck Road	Lincoln/New Lynn	
Swanson Road	Lincoln/New Lynn	
Universal Drive	Lincoln/New Lynn	
Metcalfe Road	Lincoln/New Lynn	
Rathgar Road	Lincoln/New Lynn	
Te Atatu/Edmonton Road	Lincoln/New Lynn	
Great North Road	Lincoln/New Lynn	
Rata/Ash Street	Lincoln/New Lynn	
Blockhouse Bay Road	Waterview	
Western Rail Line Cycleway	Waterview/New Lynn	
Tiverton/Wolverton Road	Waterview	

St Lukes/Balmoral Road	Waterview	
Pt. Chevalier Road	Waterview	
Rosebank Road	Waterview	
State Highway Improvements		
SH1 to SH18 Connection – future proof	Westgate/Hobson	
SH16 to SH18 Connection – future proof	Westgate/Hobson	
Tier 2 Activities – Land Use		
Commercial		
New Lynn	Lincoln/New Lynn	
Henderson	Lincoln/New Lynn	
Swanson	Lincoln/New Lynn	
Westgate	Westgate/Hobson	
Hobsonville	Westgate/Hobson	
Rosebank	Waterview	
Residential/Mixed Use		
Pt. Chevalier	Waterview	
Mt Albert	Waterview	
New Lynn	Lincoln/New Lynn	
Mt. Roskill	Waterview	
Lincoln Road/Henderson	Lincoln/New Lynn	
Stoddard	Waterview	
Avondale	Waterview	
Tier 3 Activities (3-30 year period)		
Walking & Cycling		
Soljak Pedestrian/Cycle Connection	Waterview	
Passsenger Transport Infrastructure		
Unitec Bus Link & Bus Bridge	Waterview	
St Lukes Rd I/C Improvements	Waterview	
Carrington Rd Bus Priority	Waterview	
Blockhouse Bay Rd Bus Priority	Waterview	
Richardson Road Rail Station future proofing	Waterview	
Further PT Infrastructure Investigations	Lincoln/New Lynn	
Don Buck and Triangle Rd PT Investigation	Lincoln/New Lynn	

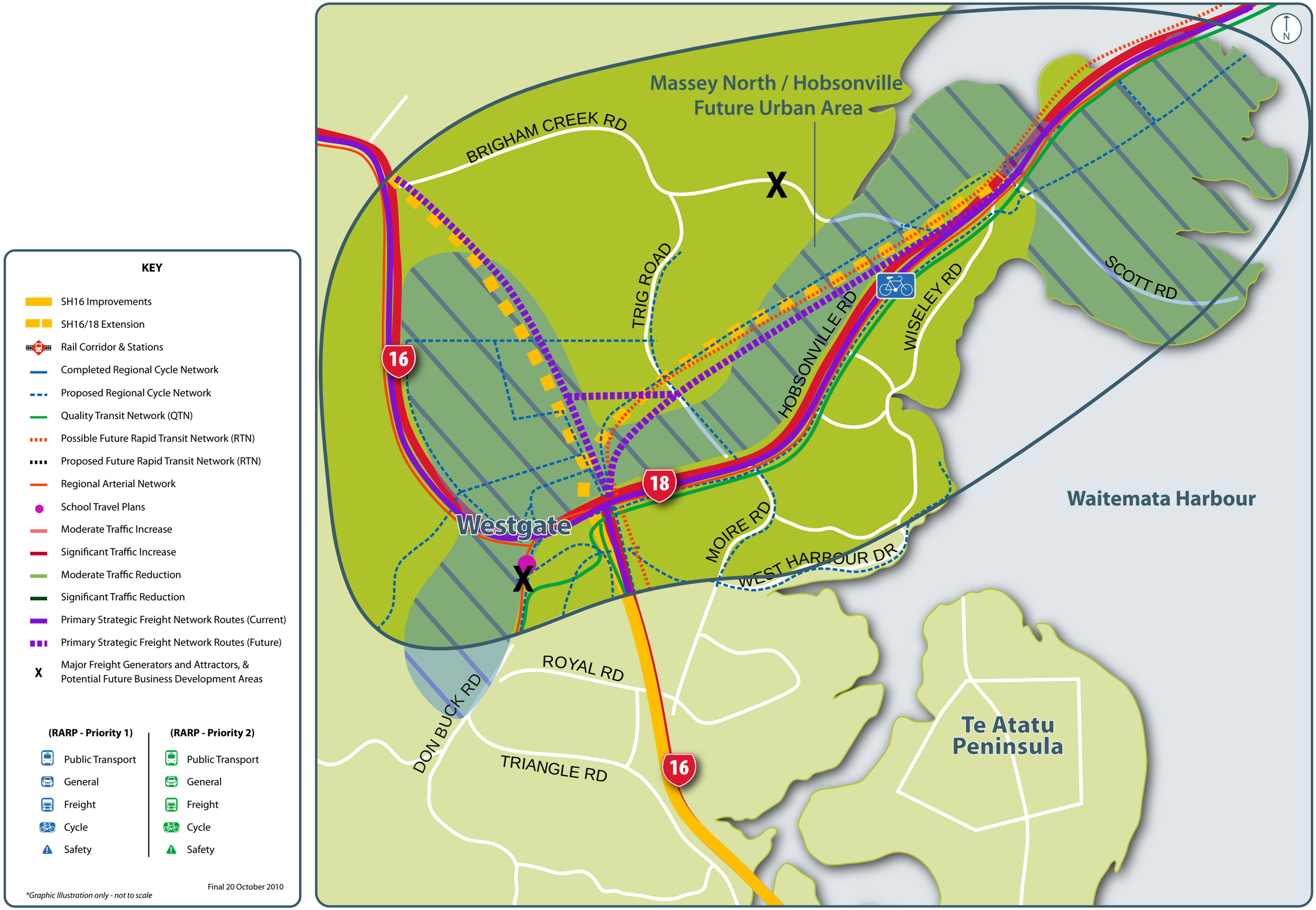
Te Atatu and Lincoln Rd I/C PT Investigation	Lincoln/New Lynn	
Ash/Rata Bus Priority	Lincoln/New Lynn	
New North Rd Bus Priority (Avondale – CBD)	Waterview	
Local Road Improvements		
Richardson Rd Bridge Future Proofing	Waterview	
Richardson Rd Capacity Management	Waterview	
Stoddard/Richardson Improvements	Waterview	
Woodward Rd Capacity Management	Waterview	
St Judes St Rail Level Crossing	Waterview	
Woodward Rd Rail Level Crossing	Waterview	
Morningside Dr Rail Level Crossing	Waterview	
State Highway Improvements		
SH1 to SH18 Connection – future proof	Westgate/Hobson	
SH16 to SH18 Connection – future proof	Westgate/Hobson	
Morningside Dr Rail Level Crossing	Waterview	

Key for tier 1 Activities		
S : Study	I : Investigation	C: Construction
D : Design	P : Property	

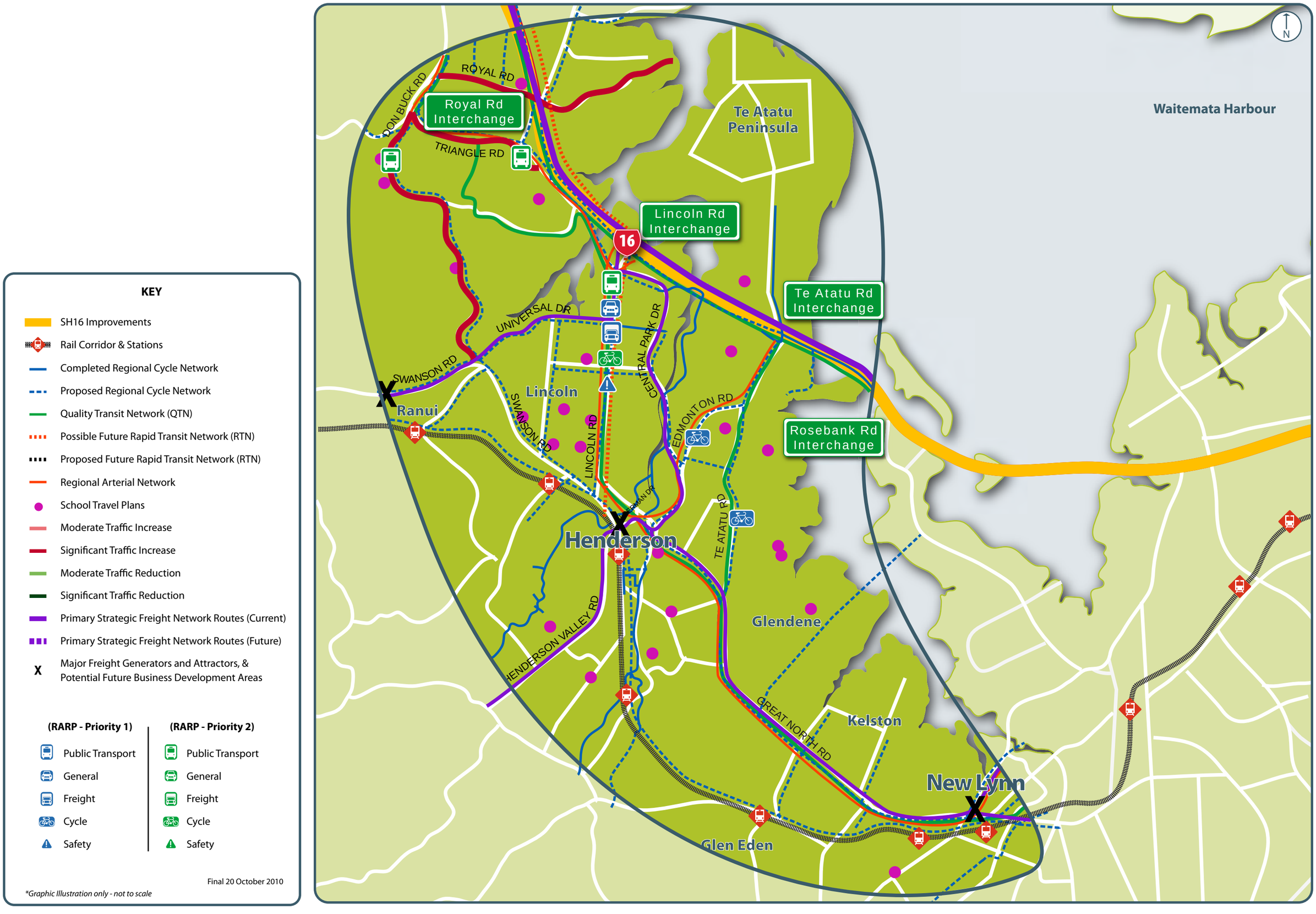
These activities have been assessed against those routes that will experience relatively increased or decreased future traffic volumes as a result of the RoNS being implemented and highlight potential network issues and opportunities identified in table 6.1, "The Optimisation Table".

The maps on the next three pages illustrates "moderate" (10% to 20%) and "significant" (greater than 20%) changes in traffic volumes at 2016-2026. That is, the relative percentage change in traffic volumes in the future having completed the WRR compared with a 'do minimum' scenario.

Along with relative future traffic volumes, the following maps illustrate strategic transport routes, future growth nodes and business development areas identified in regional strategy and priority arterials as identified in the ARTA "Regional Arterial Road Plan".



Western Ring Route - Northwestern Sector for Westgate/Hobsonville



Western Ring Route - Northwestern Sector for Lincoln / New Lynn

KEY

- SH16 Improvements
- SH20 Extension
- Rail Corridor & Stations
- Completed Regional Cycle Network
- Proposed Regional Cycle Network
- Quality Transit Network (QTN)
- Possible Future Rapid Transit Network (RTN)
- Proposed Future Rapid Transit Network (RTN)
- Regional Arterial Network
- School Travel Plans
- Moderate Traffic Increase
- Significant Traffic Increase
- Moderate Traffic Reduction
- Significant Traffic Reduction
- Primary Strategic Freight Network Routes (Current)
- Primary Strategic Freight Network Routes (Future)
- X — Major Freight Generators and Attractors, & Potential Future Business Development Areas

(RARP - Priority 1)	(RARP - Priority 2)
Public Transport	Public Transport
General	General
Freight	Freight
Cycle	Cycle
Safety	Safety

Final 20 October 2010

*Graphic Illustration only - not to scale

Western Ring Route - Northwestern Sector for Waterview

6.0 *Optimising WRR Associated Activities*

This section outlines the key transport and land use activities that are planned for within the Network Plan area and then further assesses the planned future transport activities to analyse how changes to the overall transport programme may address issues or capitalise on the opportunities bought about through the delivery of the Western Ring Route (north-west).

The WRR associated activities may address issues, minimise risks and capitalise on opportunities associated with the implementation of the WRR RoNS. The Network Plan will focus on activities that could optimise the benefits of the Western Ring Route (north-west) and the wider network. These activities include both land use and transport initiatives such as plan changes, public transport improvements and local roading upgrades.

Table 6.1 : The Optimisation Table

Issue/Opportunity	Description	Status	Potential Network Optimisation	IRS rating & estimate
Land Use - Commercial				
Issue: full RoNS benefits not realised on the regional freight network.	Benefits to the network bought about by the RoNS may be eroded by inappropriate land use and limited travel choices.	RLTS	Support PT & TDM measures to take private trips of the regional freight network and investigate provision of freight facilities on these routes.	**H** **<$1m**
Issue: commercial 'hubs' identified in the RLTS in the network plan area will not operate to full potential.	Benefit from RoNS to commercial 'hubs' Henderson, Swanson, Westgate, Hobsonville and Rosebank may be eroded by inappropriate land use.	RLTS	Influence regional policy and land use change proposals to support commercial 'hubs'.	**H** **<$1m**
Land Use – Residential/Mixed Use				
Opportunity: further optimise the RoNS project by appropriate future growth node and corridor development.	Intensification of Pt. Chevalier, New Lynn, Mt. Roskill, Lincoln Rd, Henderson, Massey North, Stoddard and Avondale, Glen Eden, Balmoral, Mt Roskill, Swanson, Ranui and Te Atatu.	RPS (PC6)	Give high priority to iInfluence land use changes and transport planning at future growth nodes to ensure benefits to the network bought about by the RoNS are further optinot compromised.	**H** **<$1m**
Opportunity: significant traffic decrease on a future growth corridor.	Intensification on Dominion Road.	RPS (PC6)	Influence land use changes along future growth corridors to ensure benefits to the network, bought about by the RoNS are further optimised.	**H** **<$1m**
Opportunity: significant traffic decrease where there is future growth node development. **Issue:** route serves through route &	Intensification of Mt Albert.	RPS (PC6)	Change Further optimisation of the RoNS through changing Carrington Rd configuration to better support PT and cycling and walking to	**H** **<$1m**

Issue/Opportunity	Description	Status	Potential Network Optimisation	IRS rating & estimate
destination function.			balance through and destination functions to support growth.	
Opportunity: change zoning for RoNS disposal property.	Dependent upon statutory requirements and parcel size.	RPS (PC6)	Investigate opportunities to change land use of property currently owned by NZTA.	**M <$1m**
Issue: address changes in traffic movement.	Stoddard/Richardson Improvements.	New	Align timing of improvements with SH20 construction around Maioro St interchange. Changes in traffic movement may require network management, including pedestrians and cyclists through town centre.	
Opportunity and Issue: support growth node with rail station location.	Plan for Stoddard Rail Station in a different location than current plan.	New	Future proofing a different rail station location.	
Demand Management				
Issue: potential induced private vehicle trips.	Region-Wide Demand Management.	Committed	Reduce the need for private vehicle trips at a local level.	
Issue: potential induced traffic.	Region-Wide School Travel Plan Infrastructure.	Committed	Reduce the need for private vehicle trips at a local level.	
Opportunity: potential induced private vehicle trips.	Greater private vehicle trips on the regional freight network and around commercial 'hubs' Henderson, Swanson, Westgate, Hobsonville and Rosebank.	RLTS	Focus TDM at commercial 'hubs' and on the regional freight network to take private vehicle trips of the regional freight network.	**MH <$1m**
Opportunity: potential induced private vehicle trips	Greater private vehicle trips around growth nodes of Pt. Chevalier, New Lynn, Mt. Roskill, Lincoln Rd /Henderson, Stoddard, Avondale and Mt Albert.	RLTS	Focus TDM at growth nodes.	**MH <$1m**
Opportunity: traffic decrease.	Routes identified by network plan showing traffic reduction.	New	Prioritise workplace and school travel plans near routes where there will be a traffic decrease & provide appropriate infrastructure.	
Cycle and Walking				
Issue: potential induced traffic.	Region-wide walking and cycling infrastructure focused around future growth nodes such as Avondale, Mt Albert, Pt. Chevalier, Mt. Roskill, Lincoln Rd/Henderson, Stoddard.	Committed	Supports RPS/RGS, access to and from PT nodes and provides transport choices in the network plan area.	
Issue: potential induced traffic. **Opportunity:** further optimise investment in	Cycleway – Triangle Rd – Central Park Dr and Twin Streams Walk & Cycleway and Pioneer St – West	Committed	Provides for trips by active modes.	

Issue/Opportunity	Description	Status	Potential Network Optimisation	IRS rating & estimate
SH16 cycleway	Wave Walk & Cycleway.			
Issue: potential induced traffic. **Opportunity:** reduced traffic.	Hobsonville Road Cycleway.	Committed	Align timing of cycleway implementation with traffic decrease.	
#Issue: potential induced traffic **Opportunity:** realise further benefits from existing cycle infrastructure.	SH Northwestern Cycle Improvements, Kingsland Cycleway and SH16 Hobsonville Rd to Kennedy's Rd.	Committed	Reducing private vehicle trip demand and providing a choice in travel mode.	
Issue: safety issues	SH16 Westgate Crossing	Committed	Provide cycle and pedestrian connect between residential and town centre.	
Issue: potential additional benefits from existing cycle infrastructure through additional investment.	Routes making up the regional cycleway network not currently in the NLTP or RLTP.	RLTS	Complete the regional cycleway network within the WRR network plan area currently with no committed funding.	**M $10-50m**
Opportunity: provide greater connection to communities.	Walking and Cycling infrastructure around the Waterview Connection.	New		
Passenger Transport				
Issue: Potential induced private vehicle trips. **Opportunity:** fully support land use and transport planning integration at a growth node	New Lynn TOD - upgrade to station, surrounding road network, PT interchange and cycle and walking projects.	Committed	Viable PT alternative to private vehicle trips to support regional land use policy.	
Opportunity: significant traffic decrease.	Plans for PT improvements on Dominion Rd.	Committed	Align timing of PT improvements with traffic decrease.	
Issue: potential induced traffic.	Glen Eden Park and Ride.	Committed	Viable PT alternative to private vehicle trips.	
Issue: potential induced traffic.	Avondale Rail Station.	Committed	Viable PT alternative to private vehicle trips.	
Issue: potential induced traffic.	New Lynn Rail Station.	Committed	Viable PT alternative to private vehicle trips.	
Issue: potential induced traffic and upcoming rugby world cup.	Kingsland Station Enhancements.	Committed	Viable PT alternative to private vehicle trips.	
Opportunity: further optimisation possible combining PT improvements with land use changes.	Sandringham Road Corridor.	Committed	Align the timing of the implementation of bus priorities with land use developments in the area.	
Opportunity: further optimisation possible combining PT improvements with land use changes.	Morningside Dr.	RLTS	Investigate bus priority measures and align the timing of the implementation with localised land use changes.	**M <$1m**
Opportunity: further optimisation possible combining PT improvements with land use changes.	St Lukes.	RLTS	Investigate bus priority measures and align the timing of the implementation with localised land use	**M <$1m**

Issue/Opportunity	Description	Status	Potential Network Optimisation	IRS rating & estimate
			changes.	
Issue: future QTN route identified. **Opportunity:** significant traffic decrease.	Mt Albert and Carrington Roads.	RLTS	Investigate bus priority measures and align the timing of the implementation with traffic decrease.	**H <$1m**
Issue: future QTN route identified. **Opportunity:** traffic decrease.	Great North Road/Rata Street.	RLTS	Investigate bus priority measures and align the timing of the implementation with traffic decrease.	**H <$1m**
Issue: future RTN route identified.	SH16 (Lincoln Rd – Westgate) & SH18	RLTS	Investigate future RTN	**M <$1m**
Issue: future QTN route identified. **Opportunity:** incorporate with other network improvements work.	Tiverton/Wolverton	RLTS	Investigate future QTN and consider with other network improvements.	**H <$1m**
Opportunity: designate for rail corridor as part of RoNS	Future proof Avondale – Southdown rail corridor	RLTS	Provide for rail designation as part of RoNS project.	**H <$1m**
Issue: provide PT facilities to support PT network.	Te Atatu, Hobsonville and Lincoln Rd (interim) Park & Ride.	Draft Park & Ride Strategy.	Investigate future Park & Ride facilities.	**M <$1m**
Issue: provide PT facilities to support PT network.	Westgate Park & Ride Terminal.	Draft Park & Ride Strategy.	Investigate future Park & Ride facilities.	**M <$1m**
Issue: increased traffic on "off SH16" QTN route.	Royal and Triangle Roads.	New	Investigate future QTN	
Opportunity: investigate alternative PT routes in the Waterview area.	Unitec Bus Link & Bus Bridge. (consider as part of the QTN services currently running on Great North Road).	New	Potential change to QTN, new link to avoid congestion from Waterview motorway traffic and provides PT & pedestrian/cyclist access to Unitec from Great North Road.	
Network Management				
Issue: balance network functionality.	Central Park Dr (intersection improvements).	Committed	Upgrade local road component of regional freight network.	
Issue: Sections of the freight network requiring upgrading.	North Lincoln Road/Universal/Swanson Road.	RLTS	Investigation of routes including providing for freight movements.	**H <$1m**
Issue: Sections of the freight network requiring upgrading.	Central Park /Edmonton /Alderman /Henderson Valley Road.	RLTS	Investigation of routes including providing for freight movements.	**H <$1m**
Issue: Sections of the freight network requiring upgrading.	Great North/Rata Street.	RLTS	Investigation of routes including providing for freight movements.	**H <$1m**
Issue: Sections of the freight network requiring upgrading.	Rosebank/New North/Richardson Road.	RLTS	Investigation of routes including providing for freight movements.	**H <$1m**
Opportunity: significant traffic decrease.	Sandringham Road/Balmoral centre.	RARP	Align timing of addressing the Balmoral town centre 'place' issue with the decrease in traffic.	**H <$1m**

Issue/Opportunity	Description	Status	Potential Network Optimisation	IRS rating & estimate
Issue: Sections of the freight network requiring upgrading. **Opportunity:** traffic reduction.	Tiverton/Wolverton	RLTS	Provide for freight movements as part of upgrade works.	**H** **<$1m**
Local Road Improvements				
Issue: The route is of regional significance in terms of PT and freight **Opportunity:** relatively less traffic increase.	Tiverton Rd/Wolverton St Route Upgrade.	Committed	Balance network capacity and provide for future demand and function by upgrading this section of the network.	
Issue: Potential induced private vehicle trips.	New Lynn TOD - upgrade surrounding road network.	Committed	Local road component of TOD investment.	
Issue: provide adequate local road interface with RoNS.	SH18 – Buckley Interchange.	Committed	Local road improvements to support RoNS.	
Issue: provide adequate local road interface with RoNS.	Hobsonville Interchange	Committed	Local road improvements to support RoNS.	
Issue: further optimise RoNS by balancing network flows.	Lincoln Rd	RLTS	Further optimisation of the RoNS and network can be achieved by Lincoln Rd improvements.	**H** **$50m**
Opportunity: Change the form of Hobsonville Road to support local access function.	Hobsonville Rd/SH18 Revocation.	New	Local road improvements (including cycle, walking and PT) to support local access function.	
Issue: address changes in traffic movement.	Richardson Rd Capacity Management.	New	Align timing of capacity management with RoNS and changes in traffic movement.	
Opportunity: significant traffic decrease.	Woodward Rd Capacity Management.	New	Significant changes in traffic movements following RoNS completion may require capacity or operations management.	
Opportunity: further network optimisation (outside of RoNS influence).	St Judes St Rail Level Crossing.	New	Removal of level crossing for safety and to improve capacity on arterial road. Requires funding and approval. Includes upgrade of adjacent intersections with Great North and Blockhouse Bay Road.	
Issue or opportunity. Further optimise the network but may be less benefit post construction with decrease in traffic.	Woodward Rd Rail Level Crossing.	New	Removal of level crossing for safety and improve capacity on arterial road. Requires funding and approval.	
Issue: potential network optimisation. May be a greater if land use is intensified.	Morningside Dr Rail Level Crossing	New	Removal of level crossing for safety and improve capacity on arterial road. Requires funding and approval.	

Issue/Opportunity	Description	Status	Potential Network Optimisation	IRS rating & estimate
Issue: significant traffic increase.	Don Buck /Royal /Triangle Roads	New	Investigate capacity and safety issues and implement improvements	
New & Improved Infrastructure for State Highways				
#Issue: support economic growth and planned urban growth in the north-west.	SH16 Brigham Creek Ext.	Committed	Implement SH16 extension	
Issue: potential reduction of motorway level of service over time.	WRR Ramp Signalling.	Committed	Implement ramp signalling to ensure full utilisation of the upgrade motorway system	
#Issue: Provide adequate local network interface to RoNS (including PT)	Lincoln Rd and Te Atatu I/C Upgrade and Priority Improvements.	Committed	Implement improvements to coincide with SH16 improvements.	
#Issue: QTN route identified.	SH16 Bus Shoulder Improvement Group.	Committed	Reducing private vehicle trip demand and providing a choice in travel mode	
Opportunity: further optimise RoNS.	St Lukes interchange improvements.	Committed /new	Short term NZTA investigation, long term NZTA or AC implementation of capacity and/or cycling and walking improvements	
Key:	# : Part of the RoNS			

7.0 *Development and Delivery*

7.1 Potential Risks

Auckland Regional Governance

The merger of the Auckland Regional Council (ARC), Auckland Regional Transport Authority (ARTA) and seven territorial local authorities in November 2010 will impact upon the delivery of future land use developments and transport activities. This Network Plan has been developed with regional governance in mind by focusing on elements of land use and transport planning agreed at the regional level. This ensures a consistent regional approach during the development of the Network Plan.

The Auckland Region governance change, in terms of this Network Plan, has been seen as an opportunity rather than a risk or issue, as by approaching the development of the Network Plan from mostly a regional perspective, the Network Plan seeks to reinforce the priority already set through strategy and plans for the region.

Future Funding and Programming

A key risk to future funding and programming is not in terms of managing future funding liability but rather a risk that key projects identified by this Network Plan as potentially optimising the WRR RoNS and the wider network are not implemented. Those key projects that have been identified in the Network Plan but have not featured in appropriate LTCCPs are:

- Lincoln Road and Te Atatu Road
- Tiverton and Wolverton Roads

The Network Plan (as a living document) will be used to inform future funding and programming decisions as part of the NZTA's 'influence' and 'align' functions.

To ensure the Network Plan has full buy-in from Auckland Regional Transport Authority (ARTA), Auckland City Council and Waitakere City Council, the Network Plan has included full consideration and inclusion of regional policy and plans and collaboration with ARTA and Auckland and Waitakere City Councils officers and political representatives.

The Network Plan confirms that the WRR project has a strong strategic fit with the development of the Auckland regional area and transportation network for New Zealand. This includes the timing of the project relative to growth in Auckland and transport demand in the sub-regional area.

Due to a long planning and alignment process for the Western Ring Route, the project is also well integrated with the sub-regional land use planning (including intensification of sub-regional centres) and transport planning (including balancing both inter-regional and intra-regional connectivity). This planning is connected across the RMA (land use planning), LTMA (transport planning and funding under the NLTP) and LGA (funding / delivery).

There are therefore a large number of projects planned and committed to in the sub-regional network (both and transport and land use), that will ensure the optimisation of the WRR in synch with its estimated completion date of around 2016.

Ensuring ongoing alignment of these projects will require ongoing case management working with the new Auckland Council and other stakeholders. This will include influencing the form of the Auckland spatial plan and next LTCCP / RLTS. Political and executive structures are already in place to ensure that this occurs.

There are some gaps in this network optimisation and issues which will need to be managed, which are highlighted by the Network Plan. The NZTA will work collaboratively with Auckland parties to ensure that these issues are addressed.

8.0 *Review and Monitoring*

This discussion identifies the key measures and indicators to ensure the delivery of agreed objectives using the enhanced post implementation review framework and outlines the process to be used for updating data.

The Western Ring Route (North West) Network Plan is a live document, and is intended to provide a snapshot of the project and its associated implications at a specific moment in time. Therefore, as the WRRNW evolves as a project, it is envisioned that the Network Plan will evolve with it. In this light, it is important to scope monitoring and review aspects to be incorporated into the Network Plan.

The RoNS "Enhanced Post Implementation Review" (EPIR) framework contains the following measures:

- Travel time (along RoNS)
- Travel time (on key routes impacted by the RoNS)
- Traffic volumes (along RoNS)
- Traffic volumes (on key routes impacted by the RoNS)
- Freight movement (along RoNS and on key adjacent roads)
- Freight movement (rail)
- Public transport (rail)
- Public transport (bus)
- Public transport (ferry)
- Safety
- Emissions
- Water Quality
- Noise
- Land Values
- Tourism traffic
- Cycling movements
- Pedestrian movements
- Annual maintenance costs
- Road user perception
- Land use
- Community/transport severance

- Travel behaviour
- Population
- Population and household density
- Employment patterns (around RoNS over length of RoN)
- Economic Impacts

The final monitoring measures and indicators will be a subset of those listed above.

Appendix 1 – References and supporting information

This section provides documentation of the key reference and background documents that support the Network Plan including brief synopsis and reference point of where to find the document.

- Land Transport Management Act
- New Zealand Transport Strategy
- Government Policy Statement 2009-12
- National Land Transport Programme 2009 -12
- Auckland Regional Land Transport Strategy
- Auckland Regional Land Transport Programme 2009 -19
- Auckland Regional Policy Statement and Auckland City Council and Waitakere City Council District Plans (including known or required Plan Changes)
- Growth Management Strategy
- Regional Arterial Road Plan (RARP)
- Sustainable Transport Plan (STP)
- Passenger Transport Network Plan (PTNP)
- Relevant non statutory studies and strategies
- Auckland and Waitakere City Council's Ten Year Plans 2009-19

Government Policy Statement – references to integrated planning

Achieving Value for Money

54. Effectiveness means selecting activities which together make the greatest contribution to the government's medium/long term priorities, as well as the more immediate impacts sought in this GPS …

Ensuring Integrated Planning

58. Integrated planning is important to ensure that decisions made in relation to land use, transport and urban design collectively contribute to the efficient use of public funds and achieve the government's objectives for transport and New Zealand. To achieve integration, transport strategies and packages of activities should be developed alongside, and be clearly connected to, land use strategies and implementation plans.

Making Best Use of Existing Networks and Infrastructure

60. Regional Transport Committees and the NZTA should ensure that cost-effective measures to improve the efficiency of existing networks are considered as well as investment in new infrastructure.

61. However, careful consideration should also be given to the sequencing of development so that small iterative investments in existing infrastructure do not take place when more significant investment in redeveloping the same infrastructure is shortly planned to commence.

Implementing and Fostering a co-ordinated approach

62. Most transport problems require the involvement of many government agencies and private sector stakeholders to develop solutions. For instance, improvements in road safety can require coordination between road controlling authorities, regional councils, the Police, the ACC, MoH … All transport entities are expected to participate in a collaborative way with other agencies to reach coordinated solutions.

How the NZTA will Give Effect to the GPS

77. …. In particular, take account of the following factors (as described in the GPS) when planning and evaluating strategies and programmes and approving funding for activities:

- The government's priority to increase national economic growth and productivity, which includes the national roading priorities set out in the list of RoNS
- Considering networks from a national perspective
- Achieving value for money
- Encouraging integrated planning
- Making best use of existing networks and infrastructure
- Implementing and fostering a coordinated approach
- Considering the impact of volatile fuel prices.

WRR Project Information

SH16 Improvements

http://www.nzta.govt.nz/network/projects/project.html?ID=38

Waterview Connection

http://www.nzta.govt.nz/network/projects/project.html?ID=29

SH18 Hobsonville Deviation and SH16 Brigham Creek Extension

http://www.nzta.govt.nz/network/projects/project.html?ID=40

NZTA Investment and Revenue Strategy (PPFM)

http://www.nzta.govt.nz/resources/planning-programme-funding-manual/parta/a1-4.html

Regional Transport Planning

RLTS

http://www.arc.govt.nz/albany/fms/main/Documents/Transport/RLTS/RLTS%202009/Regional%20Land%20Transport%20Strategy%20(RLTS)%202010-2040.pdf

RARP

http://www.arta.co.nz/home/regional_arterial_road_plan.html

STP

http://www.arta.co.nz/home/sustainable_transport_plan.html

PTNP

http://www.arta.co.nz/home/passenger_transport_network_plan.html

RRSP

http://www.arta.co.nz/publications-projects/publications/regional-road-safety-plan.html

RPS (Plan Change 6)

http://www.arc.govt.nz/albany/fms/main/Documents/Plans/Regional%20Policy%20and%20Plans/ARPS/Proposed%20change%206/RPS%20Change%206%20-%20Appeals%20Version%20-%20March%202010.pdf