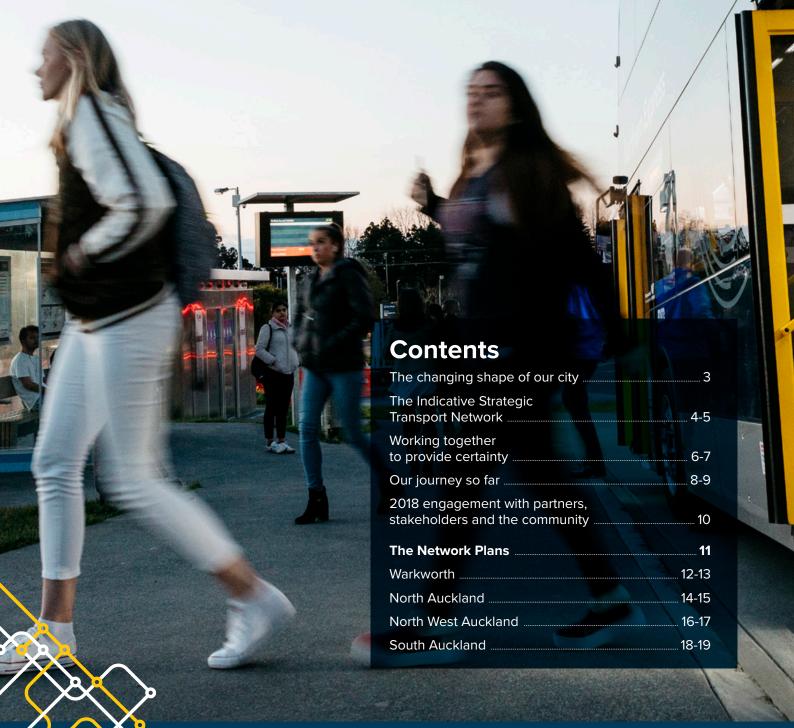






The Supporting Growth Programme is a collaboration between Auckland Transport and the NZ Transport Agency to plan transport investment in Auckland's future urban zoned areas over the next 10 to 30 years

## We're planning now to ensure certainty for our future communities





## The changing shape of our city

Auckland in 2050 will look quite different to the Auckland we know today. The population is expected to grow by up to one million people.

Most of this growth will go into existing urban areas, however around a third will go into future urban zoned areas (greenfields) identified in the Auckland Unitary Plan. These mostly rural areas will be rezoned over the next few decades and are located within:

- Warkworth
- Wainui, Silverdale and Dairy Flat in the North
- Kumeū, Huapai, Redhills, Whenuapai, and Riverhead in the North West
- Takaanini, Opāheke, Drury, Paerata and Pukekohe in the South.

130,000 NEW HOUSES

AND 76,000
NEW JOBS

NEEDED IN OUR FUTURE URBAN ZONED AREAS

### Transport helps shape quality, compact neighbourhoods

The Auckland Plan 2050 sets out Auckland Council's vision for the future development of Auckland. It is a long-term spatial plan that guides the city to grow in a way that will meet the opportunities and challenges in the future. The scale of growth expected in Auckland makes it critical that future urban areas are developed in an efficient, cost-effective and sustainable way.

This will be achieved by working collaboratively with Auckland Council to plan:

- Quality neighbourhoods most development will occur in areas where jobs, local centres, school and parks are easily accessible by frequent, reliable public transport, and walking and cycling.
- Compact neighbourhoods by 2050 most growth will have occurred within current urban areas and future urban zoned areas, limiting expansion into rural land.

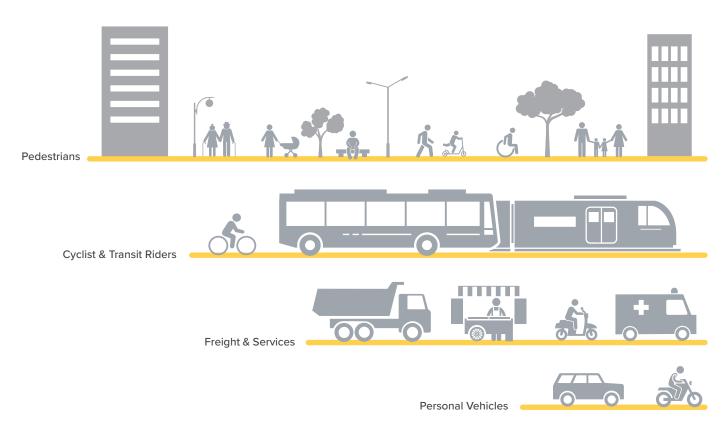
#### **Well-connected Auckland**

It is also critical that these new areas are well-connected into Auckland's existing urban areas via extended rapid transit services, safe roads that cater for all kinds of travel options and a state highway network that provides access to key freight routes and regional destinations.

### Integrating transport and land use planning for great outcomes

The goal of the Supporting Growth Programme is to plan the transport networks for the future urban zoned areas. These are being developed in line with Auckland Council's land use plans to create a cohesive guiding framework for the future.

Well-designed transport networks will play a vital role in the success of new neighbourhoods by providing safe, accessible and sustainable travel choices that connect communities and encourage a significant shift to public transport, walking and cycling.



Movement prioritisation - Indicative Strategic Transport Network.

## The Indicative Strategic Transport Network

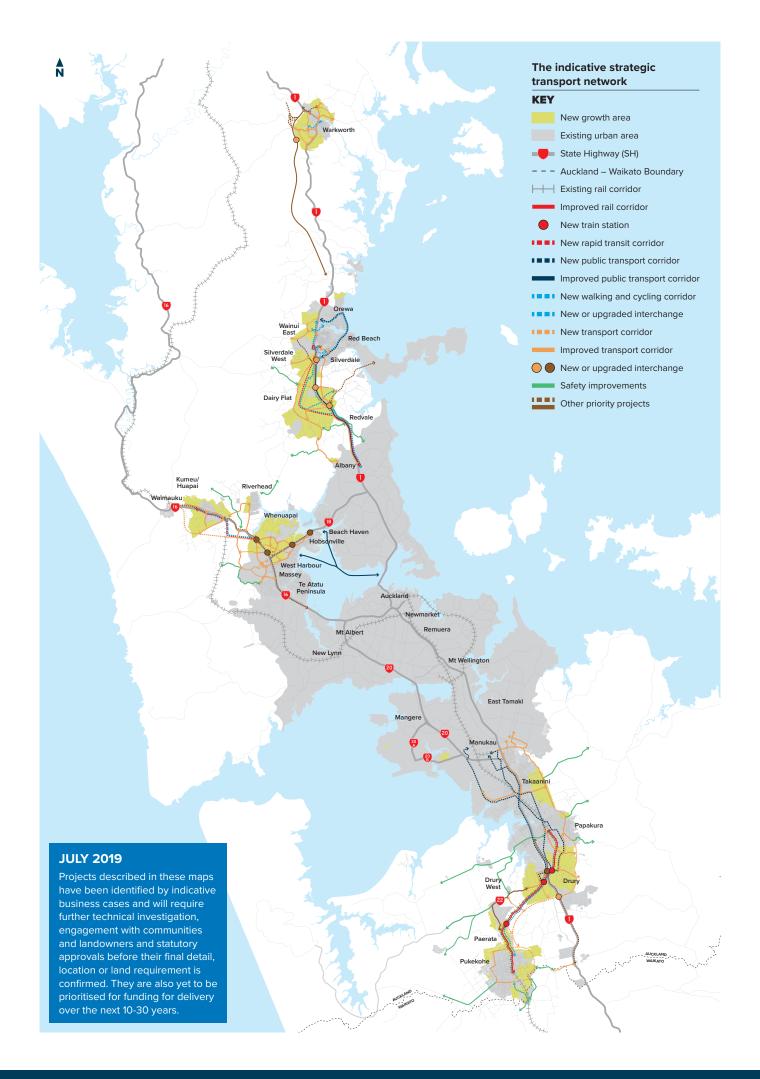
Auckland Transport and the NZ Transport Agency are proud to confirm an Indicative Strategic Transport Network – a shared vision for the future transport investments needed to support new neighbourhoods in the future urban zoned areas.

More than 70 future projects are proposed including safety upgrades, new or upgraded public transport connections, walking and cycling links, upgraded roads and state highways. It is a well-connected system that delivers safety, accessibility and liveability outcomes by focusing on:

- Accelerating the development of rapid transit networks in new growth areas enabling frequent services on largely dedicated routes, capable of moving large numbers of people
- Locating rapid transit stations near higher density housing to provide easy access and travel choice

- Ensuring public transport is reliable and convenient, and providing walking and cycling facilities to key destinations and between communities
- Making the most of the existing network and integrating effective travel demand management tools (e.g. adaptive traffic signals, dynamic lanes and real time travel information) to encourage people to travel in different ways
- Developing new connections that better link people to where they live and work
- Providing for the future needs of freight trips to service new communities
- Improving safety on existing roads which cater for all transport choices
- Planning ahead for smarter and innovative travel choices in the future e.g. ride share schemes, workplace travel planning, autonomous vehicles, delivery by drones
- Providing opportunities for positive environmental and social outcomes.

The network plans recognise that the way people move around the city needs to change. Extending the public transport network and offering travel choice is at the heart of every area's network plan.





## Working together to provide certainty

The Supporting Growth team is partnering with Auckland Council, Manawhenua and KiwiRail and working closely with utility providers, social services and the community to further develop the transport network for Auckland's future urban zoned areas.

A key part of this integrated approach is collaborating with Auckland Council as it develops Structure Plans and works towards progressing subsequent plan changes to rezone land. This enables the transport network to be identified at the same time as planning for the location of housing, employment, open space and utilities.

Our next step is to undertake more detailed technical investigations for each of the projects within the network. To date we have identified broad study areas for upgraded or new corridors that are much wider than the final requirements for a transport route. These study areas will be refined over the next few years as we undertake further technical investigations and engage with stakeholders, property owners and the wider community.

### Our programme is planning for the long term

We will be staging route protection processes across future urban zoned areas over the next few years, ensuring that the land needed to build and operate these transport routes in the future is protected well in advance of construction.

As our plans progress, we are looking for opportunities to work with developers and landowners to find ways to align our plans. We are also working with other Crown and council agencies to identify innovative funding sources to deliver the network in the future.

Construction of the majority of our programme's future transport projects is expected to align with Auckland Council's rezoning of land suitable for urban development over the next 10, 20, 30 years, in line with Council's Future Urban Land Supply Strategy (FULSS).

Applications for construction funding for many of these projects are therefore likely be sought in future National Land Transport Plans (NLTPs) and Regional Land Transport Plans (RLTPs), or privately funded over the next few decades.

In the meantime, a number of priority projects are already underway (through design, consenting or construction phases) and are expected to be delivered within the next 10 years, including:

- Te Honohono ki Tai Matakana Link Road
- SH16 Safe Networks Programme
   Brigham Creek to Waimauku
- SH22 Safe Networks Programme safety improvements
- New and upgraded arterial roads in Redhills and Whenuapai
- Improvements to SH1 between Papakura and Drury, as part of the longer-term Papakura to Bombay Improvements project.

### **Further** engagement and technical investigations for future transport projects **Supporting Growth Programme** Detailed **Business** Cases protection of future transport projects **Funding** Future phases yet to be confirmed

Where to from here

### Our journey so far

The Indicative Strategic Transport Network builds on several years of intensive planning by Auckland Transport, the NZ Transport Agency, Auckland Council, our partners, stakeholders and the community.

2018

### Auckland Plan 2050

Auckland Council confirmed its 30-year vision for the future development of Auckland.

2017 O

### Future Urban Land Supply Strategy (FULSS) refresh

Auckland Council updated its 2015 growth predictions and the sequencing and timing of future urban land to be 'development ready' over the next 30 years.

### **New Policy Context**

New Government transport priorities and policies announced under the Government Policy Statement for Land Transport (GPS) and the Auckland Transport Alignment Project (ATAP). These changed the strategic approach to transport planning and have a strong focus on improving people's wellbeing, reducing environmental impact and targeting investment to influence how and when people travel.

Reassessment of transport plans published in 2016



### **Indicative Business Cases (IBC)**

- Aligned with Auckland Council Structure Plans for some future urban zoned areas
- Identified possible transport options for each area
- Undertook technical reviews and assessments of the transport options
- Sought feedback from project partners and stakeholders, including Manawhenua, local boards, transport interest groups and local communities
- Developed a draft indicative transport network for each area
- Recommended the draft indicative transport network through Indicative Business Cases.

2016

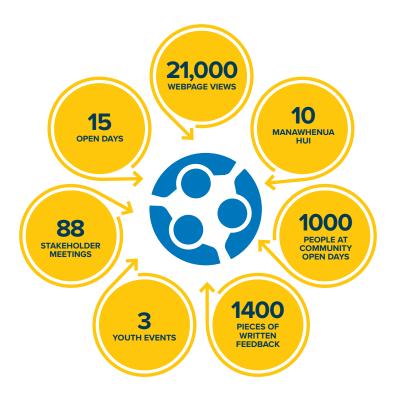
#### **Transport for Future Urban Growth**

Transport plans were developed that could support future urban growth in Warkworth, North, North West and South Auckland. This followed technical investigations and the consideration of commmunity aspirations for these areas.





# 2018 engagement with partners, stakeholders and the community



### You told us you wanted...



### So, the indicative network...

New or improved transport in place before development occurs	Is being developed with Auckland Council so the delivery of transport infrastructure aligns with the release of land for development.
	Includes short term projects to support growth over the next decade while working to protect routes for longer term projects.
More transport choice	Increases transport options such as public transport and walking and cycling to provide a genuine alternative to cars.
Safe and attractive walking and cycling connections	Connects people to key destinations such as schools, jobs and shops.  Considers safety for pedestrians and people on bikes on all new and existing arterials.
Short term improvements to address congestion and safety issues	Progresses projects in the short term to support initial growth; improves safety and alleviates pressure on the existing network e.g. Te Honohono ki Tai – Matakana Link Road.
Existing roads to be upgraded to so they are safer	Upgrades existing arterial roads to safely accommodate other transport choices such as public transport and walking and cycling.

## The Network Plans

Introducing the Indicative Strategic Transport
Network for Auckland's future urban zoned areas:

- Warkworth
- North Auckland (Wainui, Silverdale and Dairy Flat)
- North West Auckland (Kumeū, Huapai, Redhills, Whenuapai and Riverhead)
- **South Auckland** (Takaanini, Opāheke, Drury, Paerata and Pukekohe)

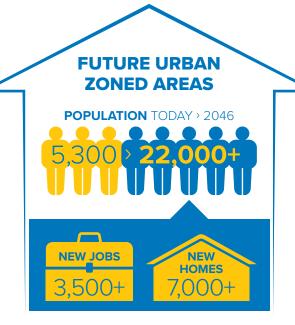


### Warkworth

You told us you would like to see Warkworth expand as a successful satellite town and have greater transport choices with good walking and cycling facilities and frequent, reliable public transport.

The network in Warkworth provides the community with safe and attractive travel choices including reliable access to public transport services and social and business destinations. While this network will be developed in the medium to long term, projects including the Te Honohono ki Tai – Matakana Link Road and Ara Tūhono – Pūhoi to Warkworth Motorway will be implemented in the short term to improve safety and manage congestion on the existing network.

This transport network integrates with Auckland Council's adopted structure plan that identifies the mix and location of housing, employment, retail, commercial and community facilities in future urban zoned areas in Warkworth.



### Key changes since the 2016 network plan for Warkworth:

- · An extensive walking and cycling network, including the Mahurangi river shared path
- Southern State Highway interchange in south Warkworth due to increased development in southern Warkworth requiring better access
- · Wider Western Link to provide a connection to the Southern State Highway interchange and improve access for proposed residential and business land in south Warkworth.



### Public Transport Facilities

Two new public transport interchanges will support the existing bus stops in the Town Centre and complement high density residential development and support a walking and cycling catchment.



Walking and cycling facilities on arterial transport corridors and a dedicated shared path along the Mahurangi River, which together will provide an attractive and safe network connecting the existing town centre, primary and secondary schools and recreational areas.



A new Sandspit Link Road will provide access to the eastern beaches, areas of employment and will connect to the Te Honohono ki Tai – Matakana Link Road.

The Western Link Road will provide a north-south alternative route to the existing State Highway 1.

Together, these corridors create a ring-route around Warkworth reducing the existing pressure on State Highway 1.

A new southern interchange is planned to provide access to new growth areas in the Warkworth south from Ara Tūhono - Pūhoi to Warkworth motorway.

A Wider Western Link planned between Woodcocks Road and State Highway 1 provides access to the new public transport interchange and the southern interchange. This provides a direct connection with the proposed local centre and residential area.



### **Other Priority Projects**

The opening of the Ara Tūhono – Pūhoi to Warkworth motorway and Te Honohono ki Tai – Matakana Link Road towards the end of 2021 will move highway traffic away to the west of the township and will immediately reduce pressure on the section of State Highway 1 that goes through the existing Warkworth township.



- Public transport interchange in north Warkworth
- 2 Public transport interchange in south Warkworth
- 3 Shared path adjacent to Mahurangi River between Mansel Drive and the existing Warkworth town centre

- 4 Sandspit Link Road
- 5 Western Link Road (including upgrade to Mansel Drive and Evelyn Street)
- 6 Wider Western Link
- 7 Southern interchange and arterial connection
- 8 Upgrade urban sections of SH1, Matakana Road, Sandspit Road, Woodcocks Road to accommodate walking and cycling

- 9 Te Honohono ki Tai Matakana Link Road
- Ara Tūhono Pūhoi to Warkworth Motorway (under construction)
- Ara Tūhono Warkworth to Wellsford indicative alignment
- Hill Street Improvements business case area

Projects described in these maps have been identified by indicative business cases and will require further technical investigation, engagement with communities and landowners and statutory approvals before their final detail, location or land requirement is confirmed. They are also yet to be prioritised for funding for delivery over the next 10-30 years.



#### **LEGEND**

Warkworth Structure Plan area New growth area (Future Urban Zone)

Existing urban area

State Highway (SH)

Existing bus stop in town centre

New interchange
– south facing ramps only

New public transport interchange

....

New walking and cycling corridor

New transport corridorImproved transport corridor

Other priority projects

Priority projects under construction

### North

### Wainui, Silverdale and Dairy Flat

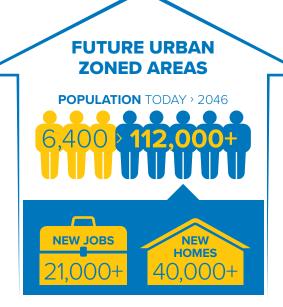
You told us you would like increased transport choices, better access to education, employment, leisure, improved north-south movements and an alternative route to State Highway 1.

The network in the North provides the community with:

- · improved access to local destinations
- · reliable access for the movement of people and goods
- safe and resilient travel choices to encourage a shift to walking, cycling and public transport use.

While this network will be developed in the medium to long term, projects including the current Dairy Flat Highway Safety Improvements will be implemented in the short term to improve safety and manage congestion.

This transport network integrates with Auckland Council's development of a structure plan that identifies the mix and location of industrial land uses in the Silverdale West – Dairy Flat area.



### Key changes since the 2016 network plan for North Auckland:

- A shift in the location of the rapid transit alignment to run through the Dairy Flat and Silverdale West growth areas rather than along SH1. This shift provides the opportunity to better integrate with land use plans for North Auckland and will increase use of public transport
- Bus lanes on State Highway 1 to support existing urban areas and new growth areas in the interim before rapid transit is provided
- A more extensive walking and cycling network and increased connections across State Highway 1.



### **Rapid Transit**

Rapid Transit is at the heart of the transport network connecting Albany to Silverdale and Milldale. This is supported by a dedicated walking and cycling path next to it.



### Public Transport

Bus shoulder lanes along State Highway 1 will extend from Albany to Silverdale as an interim solution to encourage mode shift within existing communities, prior to the development of the Rapid Transit Network.

High frequency bus routes and adjacent walking and cycling paths will connect Silverdale to Orewa via the Hibiscus Coast Highway and Grand Drive.



A walking and cycling network will connect to public transport hubs and town centres so existing and future communities will have high quality, safe and attractive routes which encourage people to use alternatives to private vehicles.



State Highway 1 plays an important role in the north, connecting freight and people from Auckland CBD to the northern areas of Auckland and beyond. Managed lanes (e.g. for freight, T2, T3 and/or electric vehicles) are planned between Albany and Silverdale to respond to an increase in traffic along this key route.

Two new State Highway interchanges will be located at Redvale, connecting to Penlink and near Wilks Road to provide access into the new industrial area at Silverdale West. Improvements will also be made to the existing Silverdale Interchange to make this safer and operate more efficiently.

New or improved crossings over State Highway 1 will provide additional connectivity to key destinations on either side of the motorway.



#### **Safety Improvements**

Upgrades to some existing rural roads to make them safer.



### **Other Priority Projects**

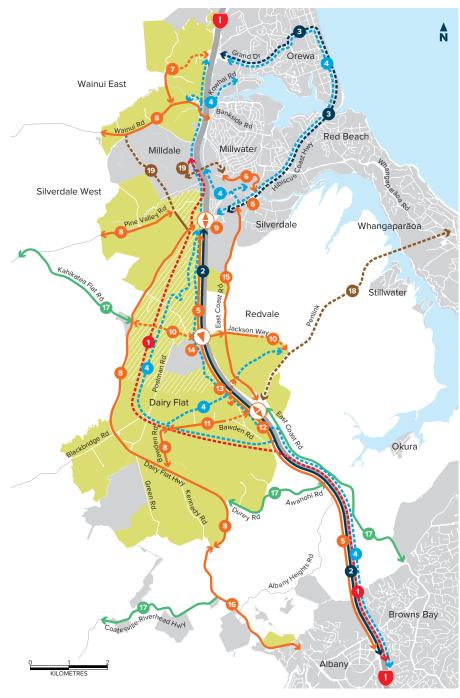
Works to support the live-zoned areas of Wainui are being funded by Crown Infrastructure Partners (CIP).



- Rapid Transit corridor extending from Albany to Milldale via new growth area
- 2 Bus shoulder lanes from Albany to Silverdale (interim)
- 3 High frequency bus route connecting Orewa and Silverdale with the Rapid Transit corridor
- 4 Strategic walking and cycling corridors

- 5 Additional managed motorway capacity between Albany and Silverdale interchange
- Signalisation of Silverdale Street and Hibiscus Coast Highway intersection (with safety treatment) and improvements to Wainui Road for buses
- 7 New connection between Milldale and Grand Drive
- Upgrade Pine Valley Road, Wainui Road, Dairy Flat Highway and Bawden Road to urban standards including walking and cycling
- Improved Silverdale interchange
- New connection from Dairy Flat Highway to Penlink via Jackson Way
- 11 New connection between Bawden Road and SH1
- New full interchange at Redvale (Penlink)
- 13 New SH1 crossing near Dairy Stream
- 14 New motorway interchange at Wilks Road
- Upgrade East Coast Road from Silverdale to Redvale interchange
- 16 Upgrade southern section of Dairy Flat Highway
- Safety improvements on Kahikatea Flat Road, Coatesville-Riverhead Highway, East Coast Road and Awanohi Road
- 18 Penlink
- 19 New Argent Lane connection and Milldale to Highgate SH1 crossing

Projects described in these maps have been identified by indicative business cases and will require further technical investigation, engagement with communities and landowners and statutory approvals before their final detail, location or land requirement is confirmed. They are also yet to be prioritised for funding for delivery over the next 10-30 years.



#### **LEGEND**

New growth area (Future Urban Zone)

Silverdale West
Dairy Flat Industrial
Area Structure Plan

Existing urban area

State Highway (SH)

New or upgraded interchange

New interchange

- south facing ramps only

New rapid transit corridor

New public transport corridor
Improved public transport corridor

New walking and cycling corridor

New transport corridor

Improved transport corridor

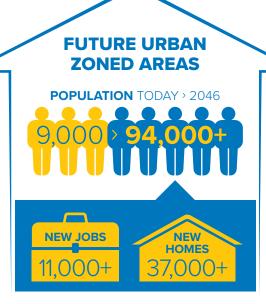
Safety improvements
Other priority projects

You told us you would like increased transport choices, a separation of shorter distance trips from longer distance trips, efficient freight connections to employment areas, a more resilient network and better access to education, employment and recreational opportunities in the area.

The network in the North West provides the community with improved transport in advance of growth while preserving the rural character of the area and keeping ecological impacts to a minimum.

While this network will be developed in the medium to long term, projects will be implemented in the short term to improve safety and manage congestion.

Some transport connections will be prioritised to support accelerated housing development in Redhills and Whenuapai. This will integrate with new housing, employment, retail and commercial land zoning in the Auckland Unitary Plan.



### Key changes since the 2016 network plan for North West Auckland:

- Confirmation that the alternative state highway will be located to the south of State Highway SH16
- Extension of Dunlop Road for bus priority
- · Strengthening of the connections between Riverhead and Kumeū-Huapai
- · Utilising the existing network more in order to reduce environmental and property impacts.



A well-connected Rapid Transit Network (RTN) will provide a link between Kumeū and Huapai to Whenuapai and Redhills. This will connect to other rapid transit links into the city and through to Hobsonville and will be supported by improved facilities and a dedicated walking and cycling corridor.

1 Rapid Transit corridor extending to Kumeū-Huapai\*



### ⋭ Public Transport

Additional ferry services are proposed at existing terminals to connect people to the wider RTN.

2 Improved ferry interchange facilities and services at existing terminals



Walking and cycling connections are planned along key routes to improve travel choice and accessibility.

3 Strategic walking and cycling corridor connecting Whenuapai to Kumeū and Huapai



An alternative route south of Huapai – Kumeū town centre is proposed to reduce pressure on the existing State Highway 16. This would help improve safety and make the Kumeū – Huapai town centre a more people-focused environment.

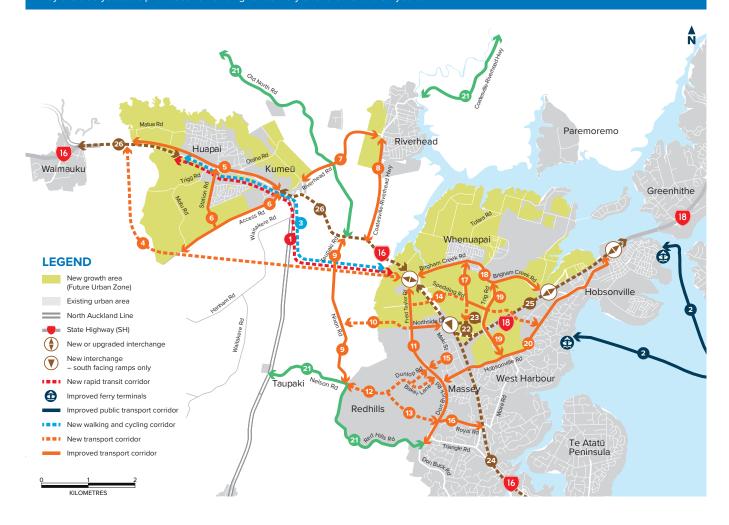
In the Kumeū area, new and upgraded roads to improve accessibility are also planned including connecting areas north and south of State Highway 16 as well as between Coatesville, Riverhead and the North Shore.

In the Whenuapai and Redhills areas, connections to the motorway are proposed as well as improvements to existing roads and new arterials.

- 4 Alternative State Highway corridor
- 5 Upgrade SH16 within Kumeū and Huapai
- Upgrade Access Road and Station Road\*
- Upgrade Riverhead Road
- Upgrade Coatesville-Riverhead Highway between SH16 and Riverhead
- 9 Upgrade Taupaki Road and Nixon Road
- 10 Upgrade and extension of Northside Drive extension from Nixon Road to SH16
- 11 Upgrade Fred Taylor Drive and Don Buck Road to Red Hills Road
- 12 New east west connections from Nelson Road to Fred Taylor Drive
- New north south connection from the east-west connection (12) to Royal Road
- Upgrade and extension of Spedding Road from Fred Taylor Drive to Hobsonville Road, including SH16 and SH18 crossings
- Dunlop Road extension from Fred Taylor Drive to Maki Street
  - Upgrade Royal Road from Don Buck Road to SH16



Projects described in these maps have been identified by indicative business cases and will require further technical investigation, engagement with communities and landowners and statutory approvals before their final detail, location or land requirement is confirmed. They are also yet to be prioritised for funding for delivery over the next 10-30 years.



- Upgrade and extension of Māmari Road from Northside Drive to Brigham Creek Road
- 18 Upgrade Brigham Creek Road
- Upgrade Trig Road from Brigham Creek Road to Hobsonville Road
- 20 Upgrade Hobsonville Road and Fred Taylor Drive between SH18 and Don Buck Road
- \*Intersection improvements at Access Road/SH16 and Station Road/SH16 to facilitate Huapai Triangle Special Housing Area development



### **Safety Improvements**

Upgrades to some existing rural roads to make them safer.

21 Safety improvements on Old North Road, Coatesville-Riverhead Highway north of Riverhead township, Nelson Road and Red Hills Road

### **Other Priority Projects**

Investigations for the City Centre to Northwest Rapid Transit line are at a very early stage and further work still needs to be undertaken to develop a business case.

While investigations are ongoing, short-term improvements for buses to support improved public transport in the area are underway.

The Safe Network Programme: State Highway 16 Brigham Creek to Waimauku project will also improve safety and capacity along this stretch of the highway for all road users over the next few years.

- Direct State Highway connection between SH16-SH18, new shared paths and interchange upgrades
- 23 Northside Drive East
- 24 City Centre to Northwest Rapid Transit\*\*
- Upper Harbour Rapid Transit (Westgate-Hobsonville)
- 26 Safe Network Programme SH16 Brigham Creek to Waimauku

<sup>\*\*</sup> Final decision subject to City Centre to Northwest Rapid Transit business case

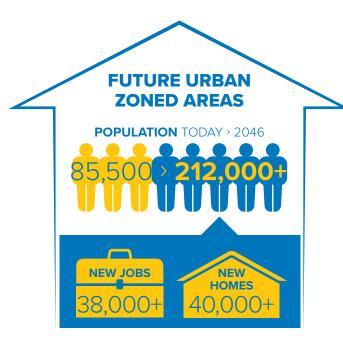
### South

### Takaanini, Opāheke, Drury, Paerata and Pukekohe

You told us you would like increased transport choices, a separation of shorter distance trips from longer distance trips, better north-south movements. improved network resilience and good access to education and employment opportunities.

The network in the South provides transport options for travelling within the local area and to places further afield such as the Auckland CBD, the airport and interregionally to the upper North Island.

This transport network integrates with Auckland Council's development of structure plans that identify the mix and location of housing, employment, retail, commercial and communities in South Auckland.



### Key changes since the 2016 network plans for South Auckland:

- Extension of the strategic walking and cycling network
- · Confirmation that additional rail upgrades are required
- · Additional Frequent Transit Network (bus) to support rail services
- · Pukekohe ring road extended to the western side of Pukekohe.



### **Rapid Transit**

Rail capacity upgrade from Papakura to Pukekohe as well as new stations at Drury, Drury West and Paerata.

In Takaanini, some level crossings over the rail line will be closed while others will be replaced with bridges. This will improve east-west connectivity and safety as well as improving train frequencies.



### Public Transport

Development of existing corridors to enable frequent and reliable connections between centres and train stations.



A safe and attractive active mode network will be provided on arterial roads with a dedicated walking and cycling route in the vicinity of the rail corridor and along State Highway 1 between Papakura to Bombay.



### Transport Corridors

The Mill Road corridor from Manukau to Drury will provide access to the proposed business land and maintain reliability for freight and inter-regional travel on State Highway 1. This will connect to a new expressway between Drury and Pukekohe providing greater access to new growth areas.

A new ring road around Pukekohe will allow trucks and other traffic to bypass the town centre.

An upgrade of State Highway 1 is proposed in the long term between Manukau and Takaanini to further improve capacity.



#### Safety Improvements

Upgrades to some existing rural roads to make them safer.



### **Other Priority Projects**

The State Highway 1 Papakura to Bombay project will increase capacity to support immediate growth by improving resilience, enhance local connectivity and manage existing congestion.

SH22 Improvements between Drury and Paerata will improve safety ahead of longer term plans.



- 1 Rail upgrade from Papakura to Pukekohe
- 2 Closure of Manuroa Road and Spartan Road rail crossings to vehicles
- 3 New grade separated rail crossings at Taka Street and Walters Road
- 4 New train station Drury Central
- 5 New train station Drury West
- 6 New train station Paerata
- Frequent Transit Networks (FTNs) routes using SH1 and arterial roads to connect to town centres, and the major centres of Papakura, Drury and Manukau
- 8 Strategic walking and cycling corridor to connect to SH1 Strategic Cycleway
- Mill Road Corridor including northern connections
- Additional long term upgrades to SH1 between
   Manukau and Takaanini
- 11 Upgrade Mahia Road and Popes Road (including a new grade separated rail and SH1 crossing)
- 12 Upgrade Opāheke Road and Ponga Road
- New arterial between Papakura industrial area, to Waihoehoe Road
- Upgrade Jesmond Road, Bremner Road and Waihoehoe Road
- 15 Upgrade Drury West section of SH22
- Connections from SH22 to the Pukekohe Expressway
- New Pukekohe Expressway connecting Pukekohe to SH1
- 18 Pukekohe Ring Road
- Upgrade Mill Road between Harrisville Road intersection and the Bombay interchange
- Safety improvements to Alfriston Road, Brookby Road, Papakura-Clevedon Road, Hingaia Road, Hunua Road, Linwood Road, Walters Road, Blackbridge Road, Glenbrook Road, Kingseat Road, McKenzie Road, Ostrich/ Woodhouse Road, Pukekohe East Road, Logan Road, Waiuku Road and Buckland Road
- 21 Rail electrification from Papakura to Pukekohe
- SH1 Papakura to Bombay Project
- Safe Network Programme: SH22
  Safety Improvements

Projects described in these maps have been identified by indicative business cases and will require further technical investigation, engagement with communities and landowners and statutory approvals before their final detail, location or land requirement is confirmed. They are also yet to be prioritised for funding for delivery over the next 10-30 years.

