

## Strategic Investment Programme – Project Descriptions

The draft GPS 2024 sets out a series of projects that are strategically important for the development of New Zealand’s transport system in the coming decades.

The Strategic Investment Programme includes:

- Warkworth to Whangārei – State Highway 1, including:
  - Te Hana to Brynderwyns
  - Warkworth to Wellsford
  - Whangārei to Brynderwyns
- Auckland Northwest Rapid Transit
- Auckland rail third and fourth Mains Expansion
- Avondale to Onehunga rail link
- Auckland and Wellington Metropolitan Level Crossing Upgrade and Removal Programme
- Cambridge to Piarere – State Highway 1
- Tauranga to Tauriko – State Highway 29
- Wellington CBD to Airport – State Highway 1 – Second Mount Victoria Tunnel and Upgrades to Basin Reserve/Arras Tunnel
- Wellington CBD to Island Bay – Mass Rapid Transit
- Napier to Hastings – State Highway 2
- Christchurch Northern Link – State Highway 1
- Nelson – Hope Bypass – State Highway 6
- Nelson (Rocks Road) shared path – State Highway 6
- Ashburton Bridge – State Highway 1

The Waka Kotahi Board ultimately have the power to approve projects funded from the National Land Transport Fund. By highlighting these projects, the Government expects that their strategic importance will be given particular consideration during the development of the National Land Transport Plan.

The projects are described in more detail in this document.

## Warkworth to Whangārei – State Highway 1

This project relates to upgrades on State Highway 1 between Auckland and Whangarei, including:

- **Te Hana (north of Wellsford) to Brynderwyns** – safety and resilience improvements to the existing route south of the Brynderwyns and a western bypass around the hills.
- **Warkworth to Wellsford (Dome Valley)** – New 26km motorway
- **Whangārei to Brynderwyns** – Upgraded 22km four-lane motorway and shared path between Whangārei and SH15

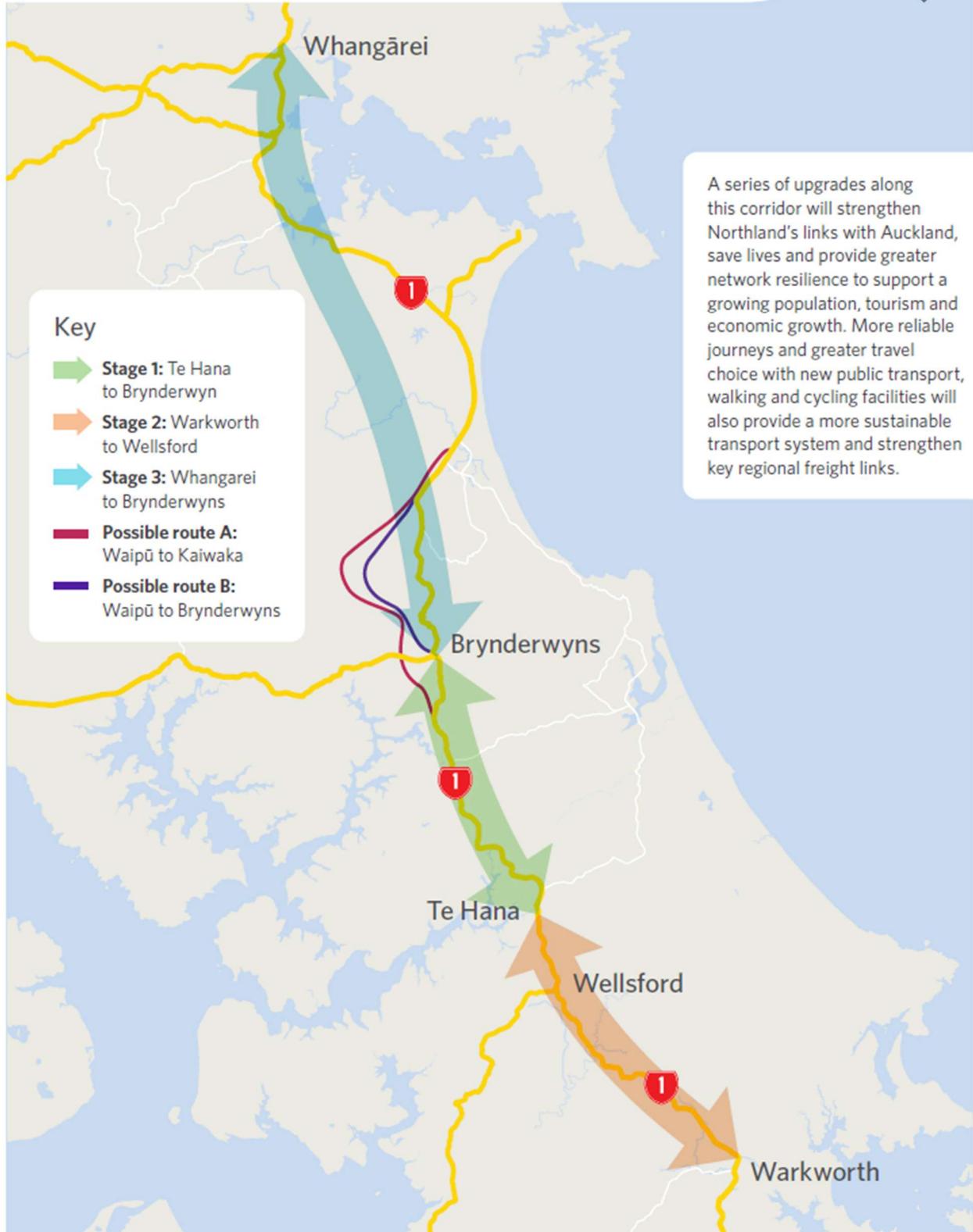
A series of upgrades along this corridor could strengthen Northland's links with Auckland, save lives and provide greater network resilience to support a growing population, tourism and economic growth. This will help to prevent costly closures arising from bad weather and crashes. More reliable journeys and greater travel choice with new public transport, walking and cycling facilities will also provide a more sustainable transport system and strengthen key regional freight links.

Note that short-term resilience improvements will be considered through the Cyclone recovery work for SH1 Brynderwyns including local road detours:

- **SH12 and 14** - The state highway alternate route is via SH12/14 Mangatapere, Dargaville, Maungaruturo (additional 1 hour) and numerous townships.
- **Oakleigh/Mangapai to Paparoa (local road)** - To the west this route runs between Mangapai and Paparoa where it exits on SH12. It adds an additional 30 minutes to the journey, has six one lane bridges and travels through rural and small communities.
- **Waipu to Kaiwaka (local road)** - To the east, Cove Road provides access via Langs Beach, Mangawhai, Kaiwaka where it exits onto SH1. It adds an additional 35 minutes to the journey and has a high density of populations, townships, and tourist destinations. This route has two one lane bridges and is not suitable for long vehicles due to a hairpin.

# 1 SH1 Auckland to Whangārei

## Section 2 - SH1 Warkworth to Wellsford



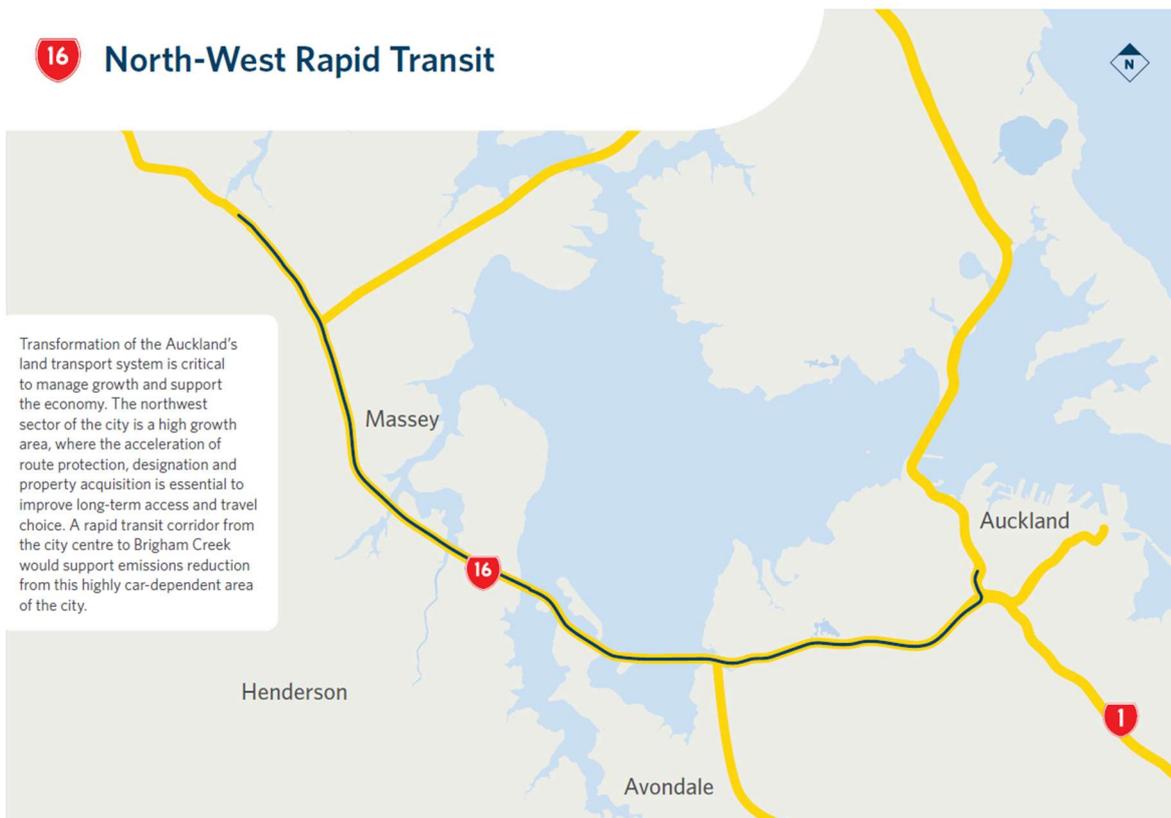
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## Auckland Northwest Rapid Transit

Transformation of the Auckland’s land transport system is critical to manage growth and support the economy. The Northwest of the city is a high growth area, where the acceleration of route protection, designation and property acquisition is essential to improving long-term access and travel choice. A rapid public transport corridor from the city centre to Brigham Creek would support emissions reduction from this highly car-dependent area of the city.

A detailed business case is underway to plan what is needed to accelerate work on this corridor, which could include staging early delivery of rapid transit stations during the next three years (2024-27). The funding provided through the draft GPS 2024 could enable Waka Kotahi to accelerate work to finalise the preferred solution, progress consenting and designation, and start early works.

Construction of a full rapid transit connection from Brigham Creek to the central city along the corridor would take at least 10 years to complete, depending on mode, but the intention from Waka Kotahi is to deliver it in stages starting with a focus on the City Centre to Westgate.



## **Auckland 3<sup>rd</sup> and 4<sup>th</sup> Main Rail Lines**

The New Zealand Upgrade Programme is currently funding the build of about 8km of 3rd Main Line in South Auckland between Westfield and Wiri Junctions (north of Puhinui to south of Middlemore). This will alleviate existing congestion in the busiest part of the Auckland Metro Network and help separate commuter from freight services.

The funding made available via the GPS could allow KiwiRail to undertake detailed engineering design, construction methodology as the start of a project to build a 4<sup>th</sup> Main between Westfield and Wiri and both 3<sup>rd</sup> and 4<sup>th</sup> Mains about 30km to Pukekohe. This is about future proofing rail in Auckland to cater for the commuter and freight growth to come.

The southern part of Auckland is an important part of the largest freight movement area in New Zealand (Golden Triangle: Auckland – Hamilton – Tauranga). The 3rd Main extension and 4th Main are expected to be needed in the 2030s to ensure the reliability of increasing passenger (metro and inter-regional) and freight rail services in the Auckland metro area. They will also help enable more trains to run between Port of Tauranga and Auckland, supporting mode shift from our highways to rail and reducing transport emissions.

The 3rd Main extension and 4th Main allows the maximum commuter service frequency enabled by the City Rail Link, over time. They would also allow more inter-regional services (such as Te Huia) to operate. It is a first step in a much larger project to shift more people/freight onto rail and reduce our transport emissions over the next decade. An estimated 6 million tonnes of freight moves in and out of the Auckland network each year and that avoids more than 400,000 long distance heavy truck trips.

Improvements and upgrades to Auckland's rail network are important to improve passenger and inter-regional freight services. With additional lines, rail will play a greater role in supporting urban and economic growth, improving access and helping reduce emissions. Design work will start as soon as funding is approved and may take three years to complete.

## **Avondale to Onehunga Rail Link**

KiwiRail has owned a corridor of land between Avondale, through Onehunga to its major freight container terminal in Southdown since the 1940s. The corridor is already designated for rail use. The funding signaled in the GPS could allow detailed engineering design to be undertaken as a first step in eventually building a rail line between Avondale-Southdown for both passenger and freight trains.

The Avondale - Onehunga Link would provide significant metro commuter service and connectivity improvements for Aucklanders. The potential to run East-West commuter services on the Avondale - Onehunga Link, would establish a true metropolitan passenger network for Auckland with an inner loop (CRL) and an outer loop (centre to west, west to south, south to east, east to centre).

Another key benefit of the line is that it would help remove rail freight from the centre of the Auckland metro network, creating more space for commuter services, while also significantly improving efficiency for freight and logistics, and resilience right across the network. For example, freight services from the north currently have to travel through Newmarket, the busiest commuter junction in Auckland where Southern and Western Line services meet.

It is expected, given increasing passenger and freight volumes that the Avondale - Onehunga Link will be needed by the 2040s. If Ports of Auckland were to be closed or curtailed it could be needed earlier.

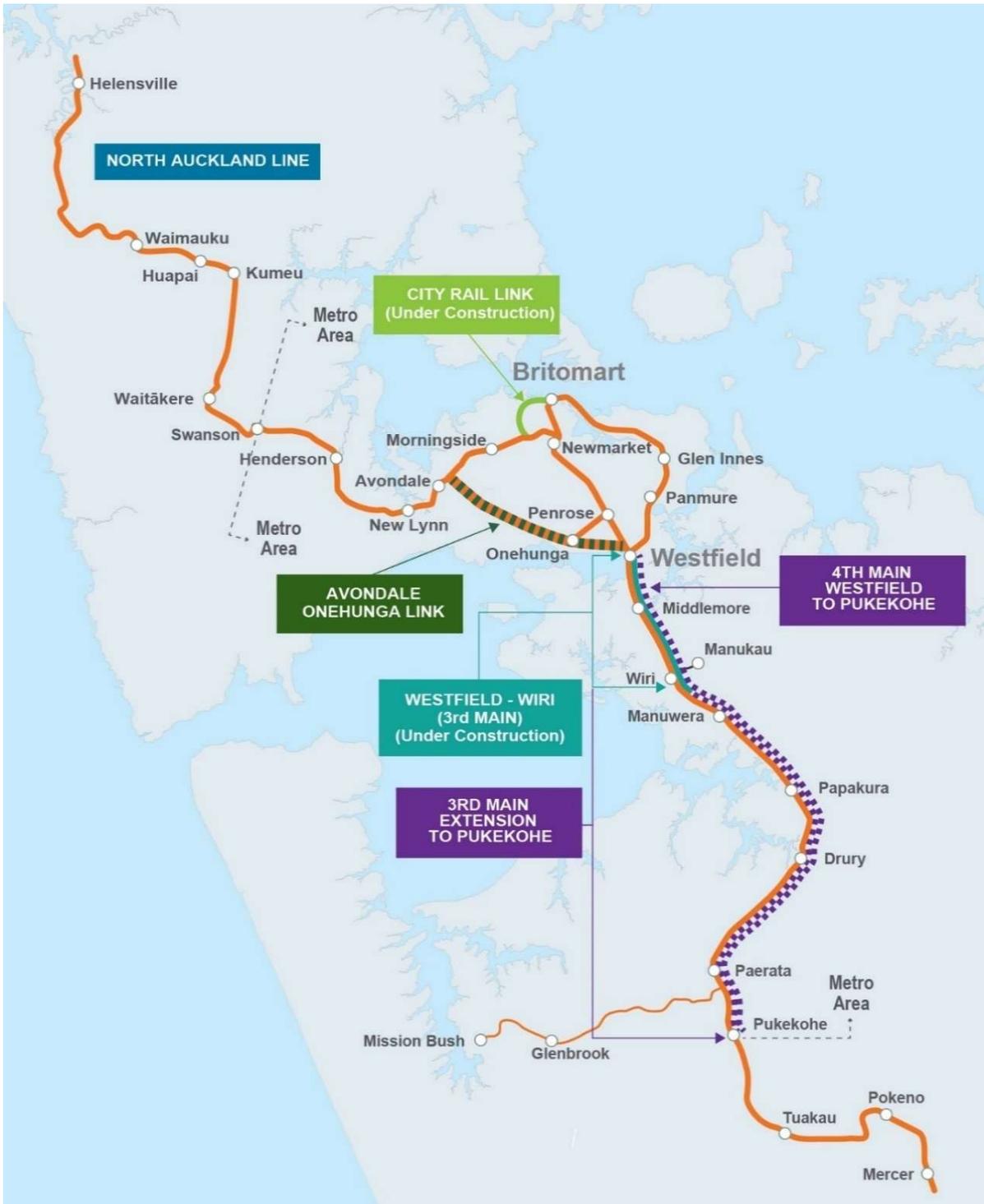
Increased capacity on Auckland's rail network has the potential to carry greater volumes of freight and support additional passenger services, reducing congestion on the roading network, improving safety, and helping to reduce emissions. Work on the engineering design for the Avondale – Onehunga will start as soon as funding is approved and may take three years to complete.

## **Rail Level Crossing Removal Programme**

To enable long-term commuter service growth in both Auckland and Wellington level crossings need to be removed. In the Auckland metro area, over time all level crossings need to be removed to enable the maximum capacity from the City Rail Link. To grow Wellington metro commuter service frequency, some level crossings will likely need to be removed over time.

The funding made available in the GPS could allow KiwiRail to identify the relevant level crossings, undertake engineering design for road/rail changes and traffic modelling as the start of a project to remove level crossings. Options could include some grade separation through over and under-passes, or outright closure. KiwiRail expect a 30-year timeframe for removing level crossings.

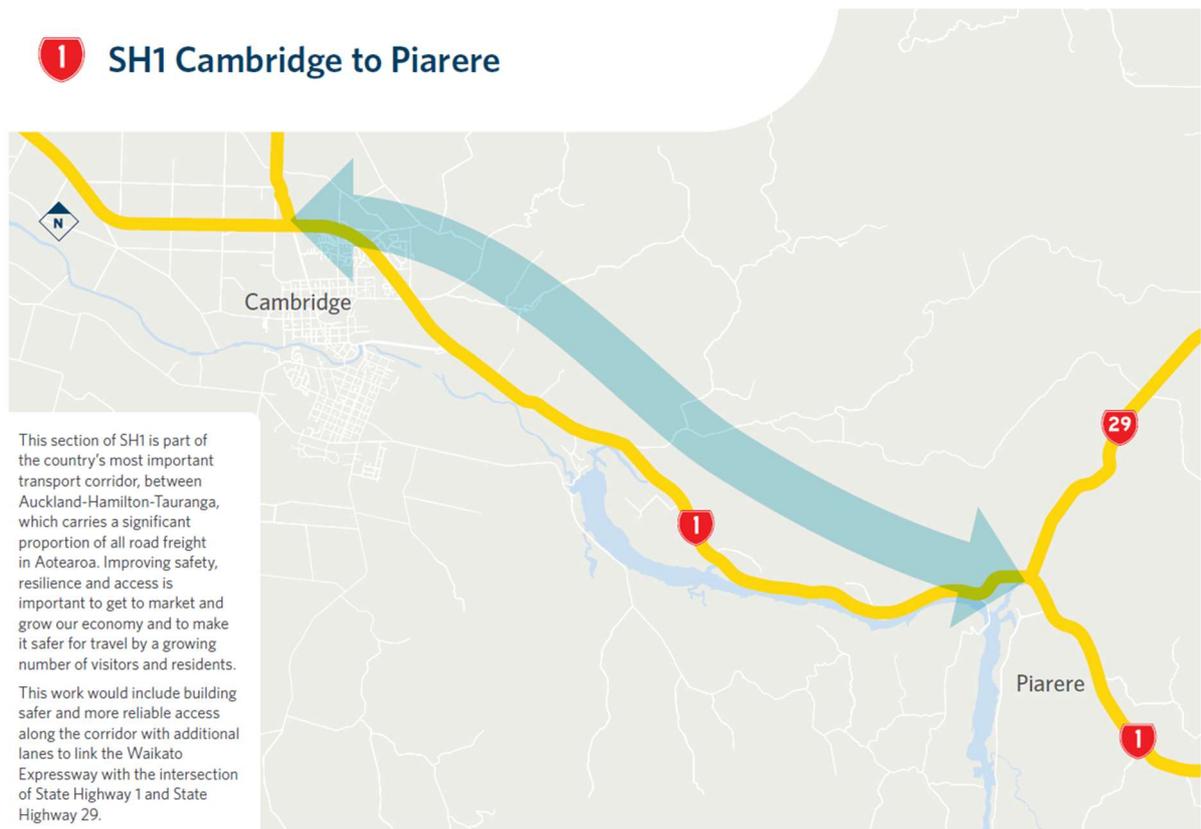
Removing level crossings improves the safety of both the road and rail networks, allows more frequent trains and, particularly with grade separation, improves the efficiency of the road network with vehicles not having to stop at barrier arms when trains pass. It benefits both commuters and drivers.



## Cambridge to Piarere – State Highway 1

This section of SH1 is part of the country's most important transport corridor, between Auckland-Hamilton-Tauranga, which carries a significant proportion of all road freight in Aotearoa. Improving safety, resilience and access is important to get to market and grow our economy and to make it safer for travel by a growing number of visitors and residents.

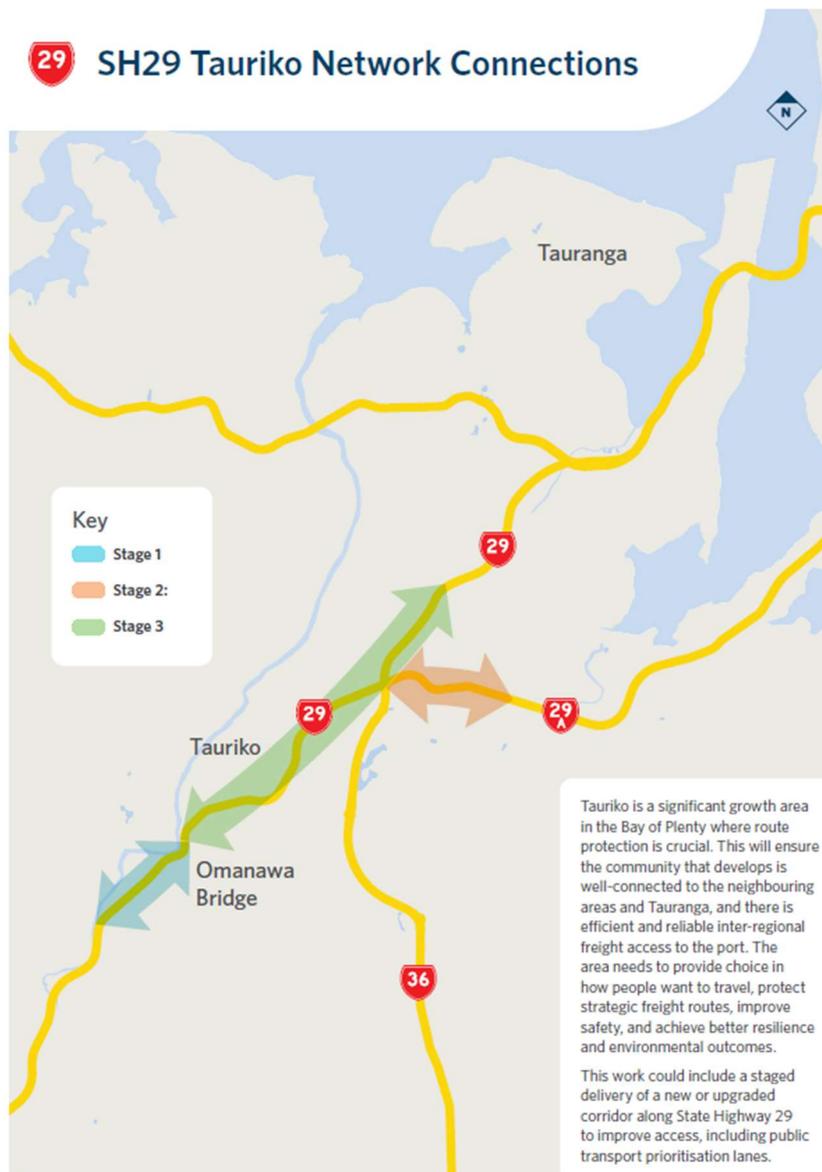
This work would include building safer and more reliable access along the corridor with additional lanes to link the Waikato Expressway with the intersection of State Highway 1 and State Highway 29. Work on this corridor could start as early as 2024, construction could get underway in 2026 and would take at least five years to complete.



## Tauranga to Tauriko – State Highway 29

Tauriko is a significant growth area in the Bay of Plenty where route protection is crucial. This will ensure the community that develops is well-connected to the neighbouring areas and Tauranga, and there is efficient and reliable inter-regional freight access to the port. The area needs to provide choice in how people want to travel, protect strategic freight routes, improve safety, and achieve better resilience and environmental outcomes.

This work could include a staged delivery of a new or upgraded corridor along State Highway 29 to improve access, including public transport prioritisation lanes. As per the recently completed detailed business case, the works are proposed to be completed in multiple stages: replacement of the Omanawa Bridge, the upgrading of parts of SH29A to improve public transport prioritization, and a new highway along SH29. The funding provided through the draft GPS 2024 could enable consenting for the larger parts of the project/enabling works for better public transport, as well as the work to start on the replacement of the Omanawa Bridge to take place over the next 3 years (2024-27).



## **Second Mt. Victoria Tunnel and Upgrades to Basin Reserve and Arras Tunnel – State Highway 1**

The Government is committed to kick-starting work on long-delayed transport solutions for the city. Local authorities agree that the Government should take the lead on projects on the state highway network.

Reshaping how we travel in our capital city is vital to enable growth, get more people using a variety of travel choices and to help reduce emissions. With the potential for significant residential growth to the east and south of Wellington, a range of improvements to build network capacity and travel choice, making getting about the city easier, more accessible and reliable.

This work would include improvements to the state highway and local road network, along with a second Mt Victoria Tunnel. A detailed business case is currently being progressed for this work. The funding made available in the GPS could enable early works to begin in 2026/27, with main construction works getting underway in 2027/28.

## **Mass Rapid Transit (Wellington CBD to Island Bay)**

Growth in Wellington needs to be supported through the delivery of new and state-of-the-art public transport options that are safe, efficient and reliable, powered by renewable energy sources. This supports the city to reduce emissions, provide sustainable travel choices and ensure better connections to essential services.

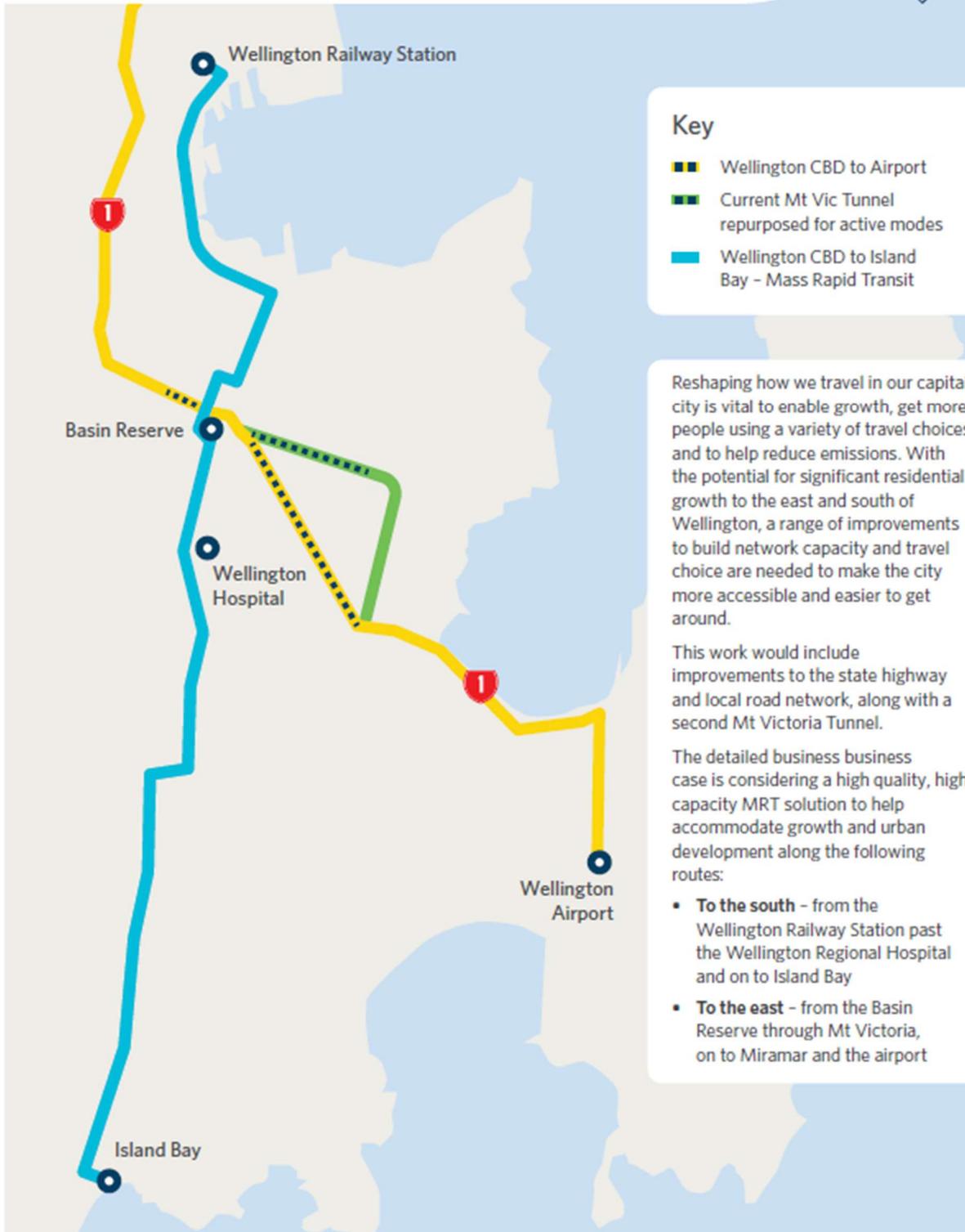
The detailed business case is considering two routes to help manage growth and urban development: to the south – from the Wellington Railway Station past the Wellington Regional Hospital and on to Island Bay, and to the east – from the Basin Reserve through Mt Victoria, on to Miramar and the airport.

The funding made available in the draft GPS 2024 could enable consenting, property purchase, and final design work to be completed before works commence during the next GPS period (2027-30).



## LGWM SH1 improvements

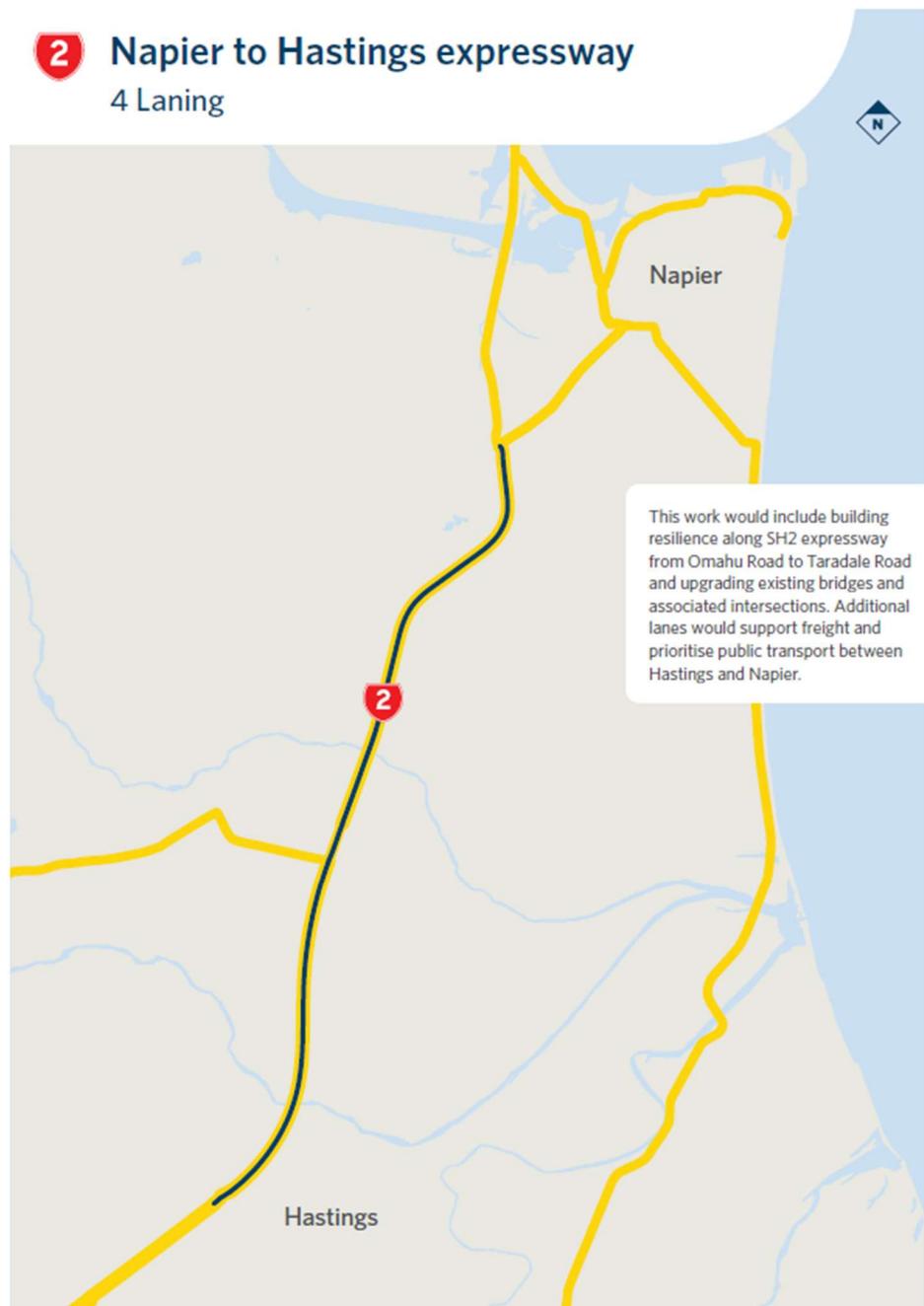
### Tunnel and Basin and Mass Rapid Transit



## Napier to Hastings – State Highway 2

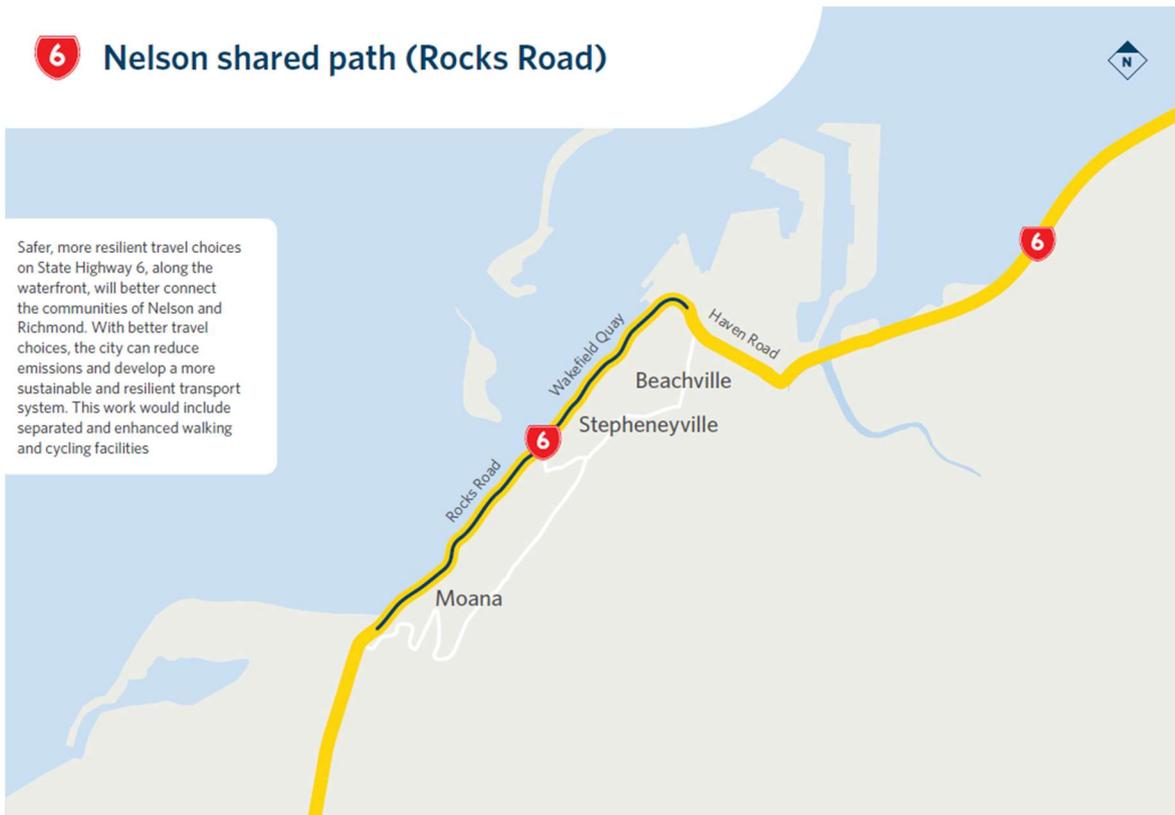
The Hawke’s Bay relies on the roading network between Napier to Hastings to support the region’s economic growth. Capacity improvements along the corridor will boost resilience, productivity and efficiency of the network, as well as connections between the two cities. This work would include building resilience along SH2 expressway from Omaha Road to Taradale Road and upgrading existing bridges and associated intersections.

Additional capacity would support freight and prioritise public transport between Hastings and Napier. Main construction works could start in the next GPS period (around 2027) and would take five years to complete.



## Nelson (Rocks Road) shared path – State Highway 6

Safer, more resilient travel choices on State Highway 6 along the waterfront with a new shared walking and cycling path would better connect the communities of Nelson and Richmond. With better travel choices, the city can reduce emissions and develop a more sustainable and resilient transport system. This work would include separated and enhanced walking and cycling facilities. Construction work could start as early as 2028 and would take around five years to complete.

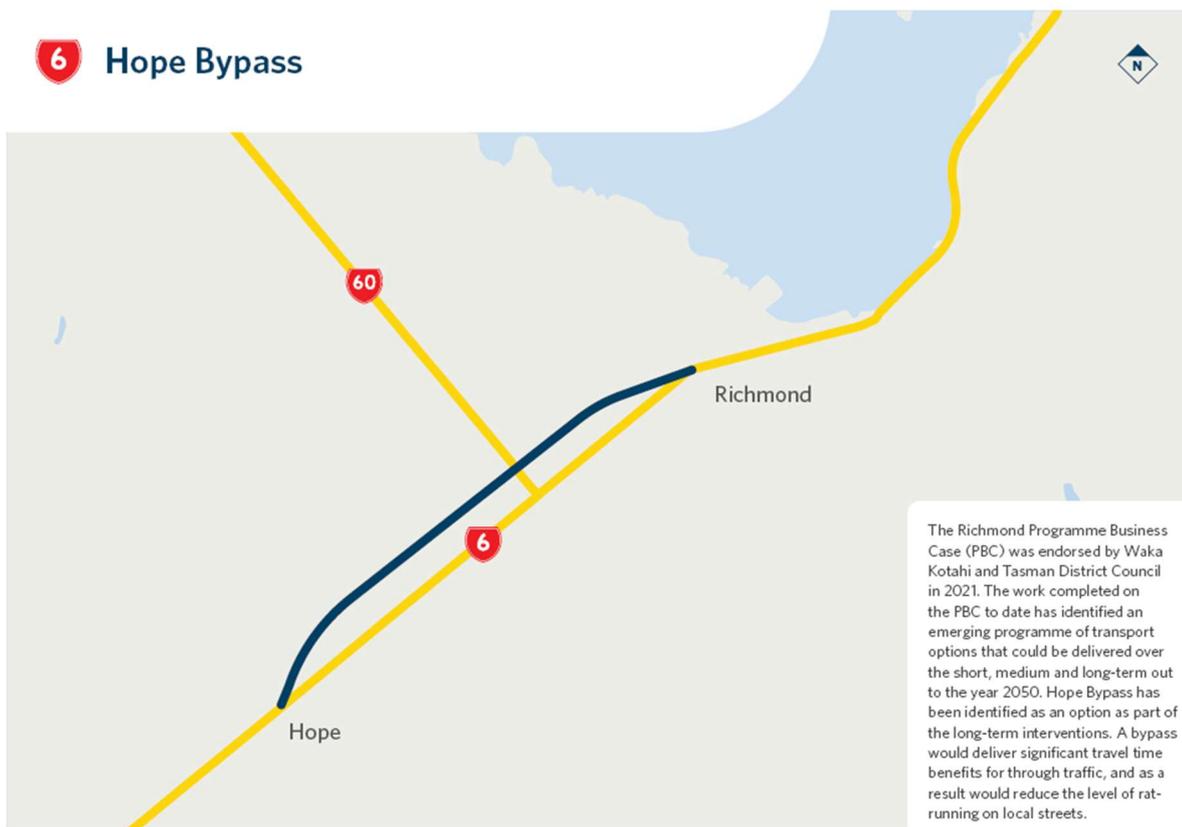


## Richmond – Hope Bypass – State Highway 6

The Richmond Programme Business Case (PBC) was endorsed by Waka Kotahi and Tasman District Council in 2021. This work identified an emerging programme of transport options that could be delivered over the short, medium and long-term out to the year 2050. Waka Kotahi and Tasman District Council are currently undertaking short-term improvements to the road network, including: Cycle lanes along key routes, Priority lanes for freight and public transport, targeted safety upgrades for pedestrians and cyclists.

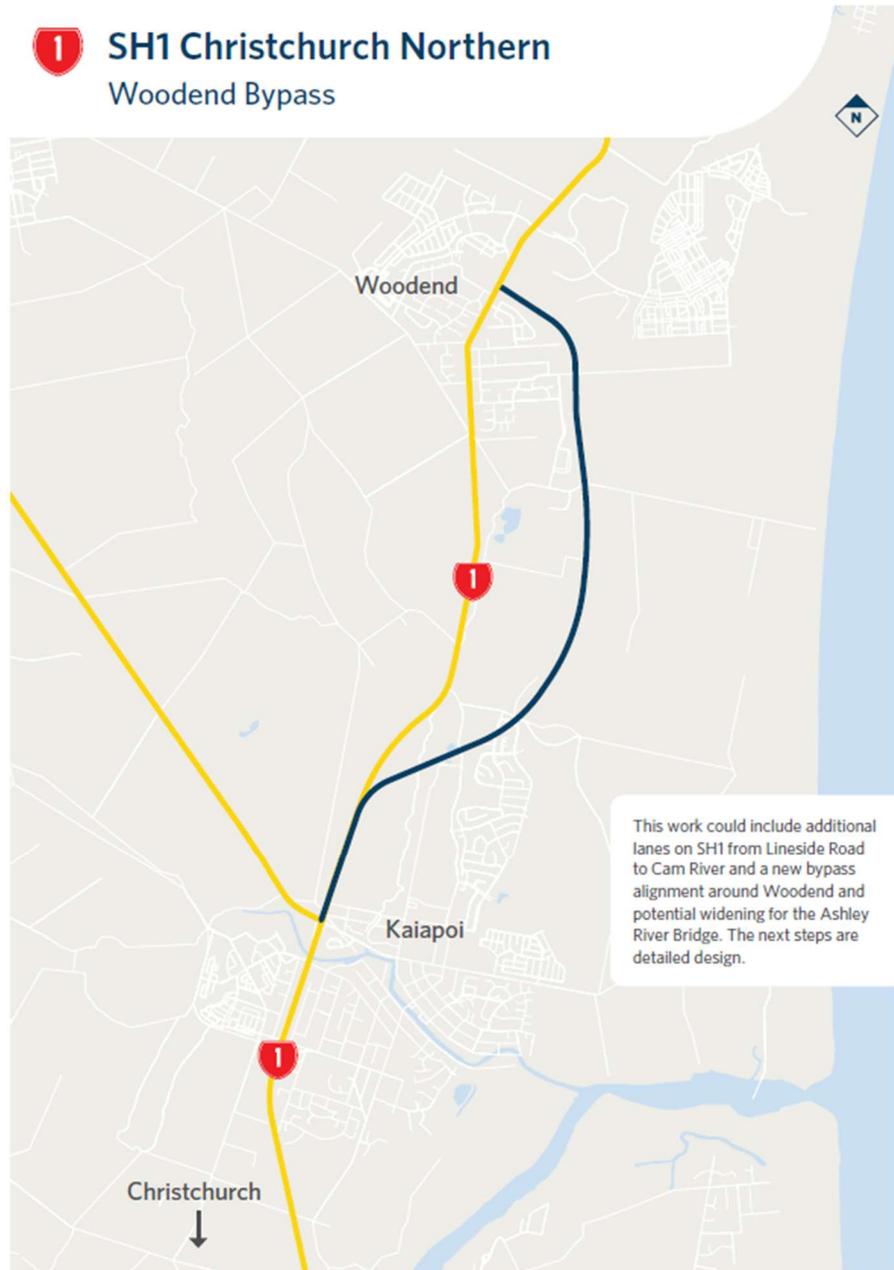
A bypass would deliver significant travel time benefits for through traffic, and as a result would reduce the level of rat-running on local streets. The bypass would strongly support the desired safety and liveability objectives for the project, and these outcomes potentially may not be delivered unless the Hope Bypass is introduced.

Significant housing growth will also generate significantly more vehicle trips, and regardless of how much active mode infrastructure is provided, the majority of new trips would still be car-based. The funding provided in the draft GPS could enable further design work and consenting to progress over the next 3 years (2024-27).



## Christchurch Northern Link – State Highway 1 (Woodend Bypass)

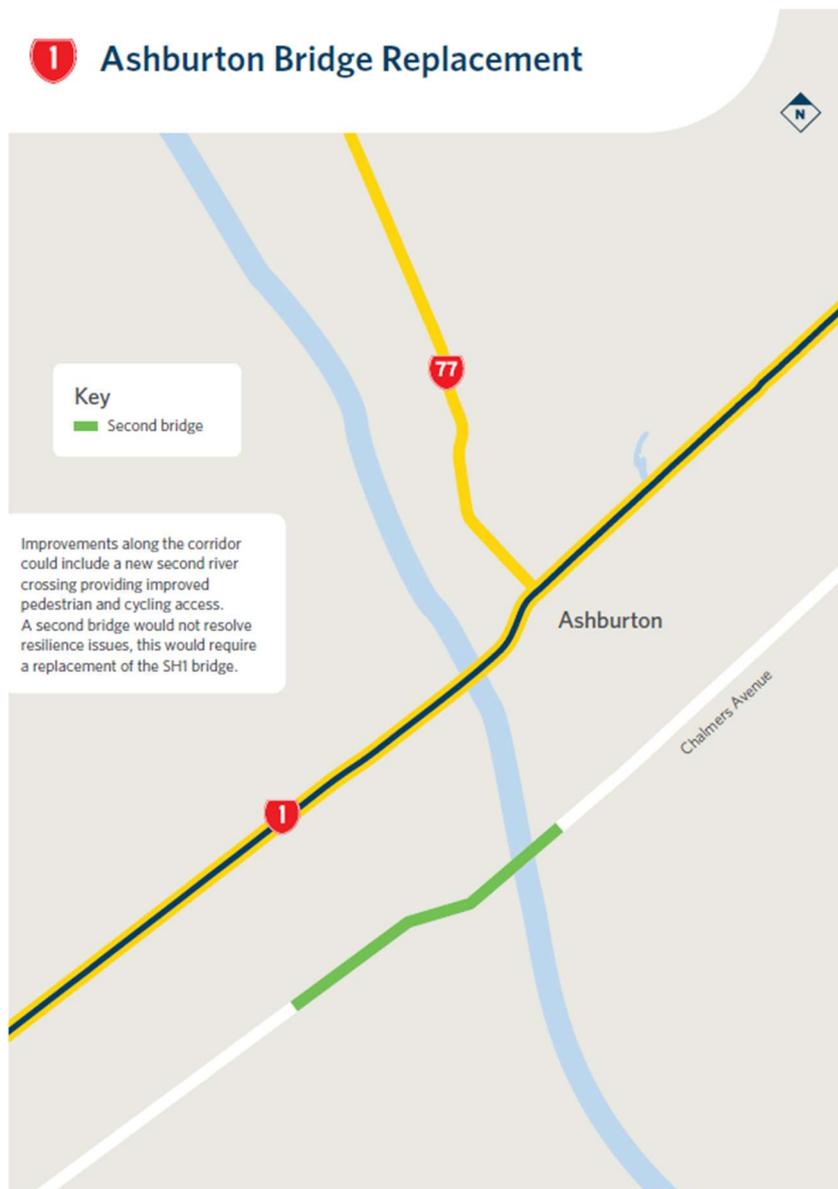
Upgrading State Highway 1 from the Waimakariri River to Ashley River, including a new alignment around Woodend, will improve safety, provide for more reliable journeys, support regional growth and greater accessibility for Woodend and Pegasus. This work could include additional lanes on SH1 from Lineside Road to Cam River and a new bypass alignment around Woodend and potential widening for the Ashley River Bridge. The funding made available in the GPS could enable further detailed design and work could start as early as 2026/27. Construction is expected to take three years to complete.



## Ashburton Bridge – State Highway 1

Greater resilience for the South Island’s main freight route along State Highway 1 would be boosted and connectivity strengthened with improvements to links across the Hakatere/Ashburton River. Additional benefits would be improved travel choice options.

Improvements along the corridor could include a new second river crossing providing improved pedestrian and cycling access. A second bridge alone would not resolve resilience issues, this would require a replacement of the SH1 bridge. Work could start in 2024/25 for pre-implementation and property purchase for a second bridge, with construction starting in 2026/27 and taking two years to complete.



## Corridor Studies (\$25m)

In addition to the projects above the GPS also makes \$25m available for Waka Kotahi to look at upgrades to other key corridors for future investments, including:

### ***SH2 Melling to Upper Hutt***

The transport link between Te Marua and Ngauranga is congested, unsafe and lacks resilience. A 2017 corridor business study focusing on the wider corridor between Te Marua and Ngauranga identified a potential four-lane from Silverstream to Upper Hutt and/or grade separated intersections for safety, resilience and economic outcomes. This study identified the work needed on Melling which is being progressed through NZUP, and the refresh will look at any remaining parts.



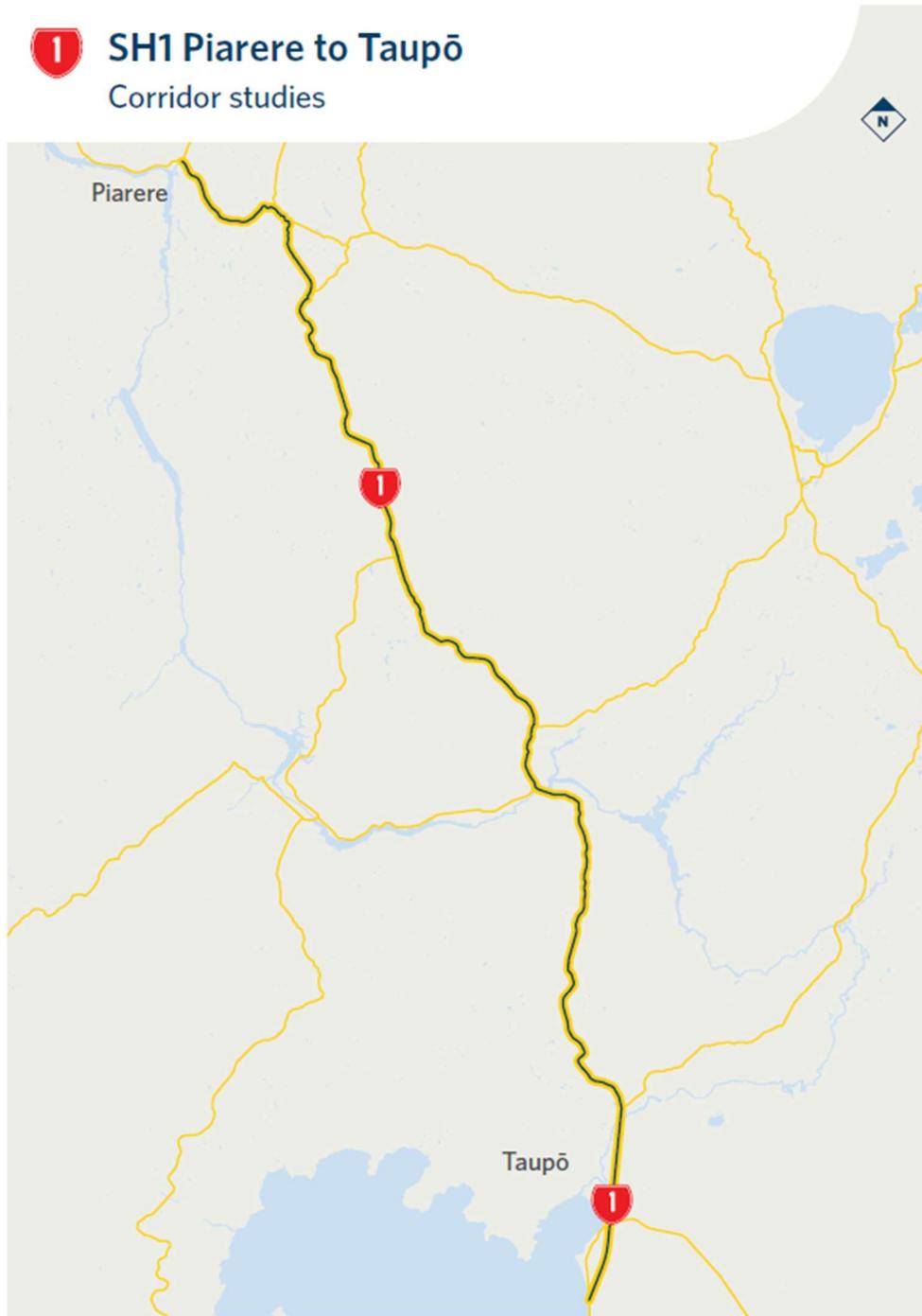
### **SH29 Piarere to Tauranga**

SH29 is the preferred route for road-based freight between Tauranga and Auckland. SH29 has a low safety record, poor resilience and a higher cost of travel due to the gradients over the Kaimai Range. The 2017 corridor business case included operational and capital improvements which were safety focused to improve DSIs and improve freight reliability on that route.



### **SH1 Piarere to Taupō**

The level of service along SH1 between Piarere and Taupō varies significantly and is out of keeping with its classification as a national (high volume) highway. The 2017 corridor business case included a strategy of operational and capital improvements, including improved emergency management, maintenance regimes, traveller information and township amenities.



### ***SH1 Taupō to Desert Road***

The journey between Taupō and Waiouru is one of the most variable and least approachable sections of SH1 and provides an inconsistent level of service. The 2017 recommended programme aimed to address road user safety and provide a reliable and efficient corridor commensurate with the route classification and wide range of users.



### **SH1 Christchurch to Ashburton**

Travel movements between Christchurch and Ashburton have risen significantly, and the Christchurch to Dunedin Corridor Management Plan considered corridor pressures, intervention triggers and appropriate levels of investment related to safety. Further work is needed to review the corridor to determine what is needed to support safety, resilience and growth.

