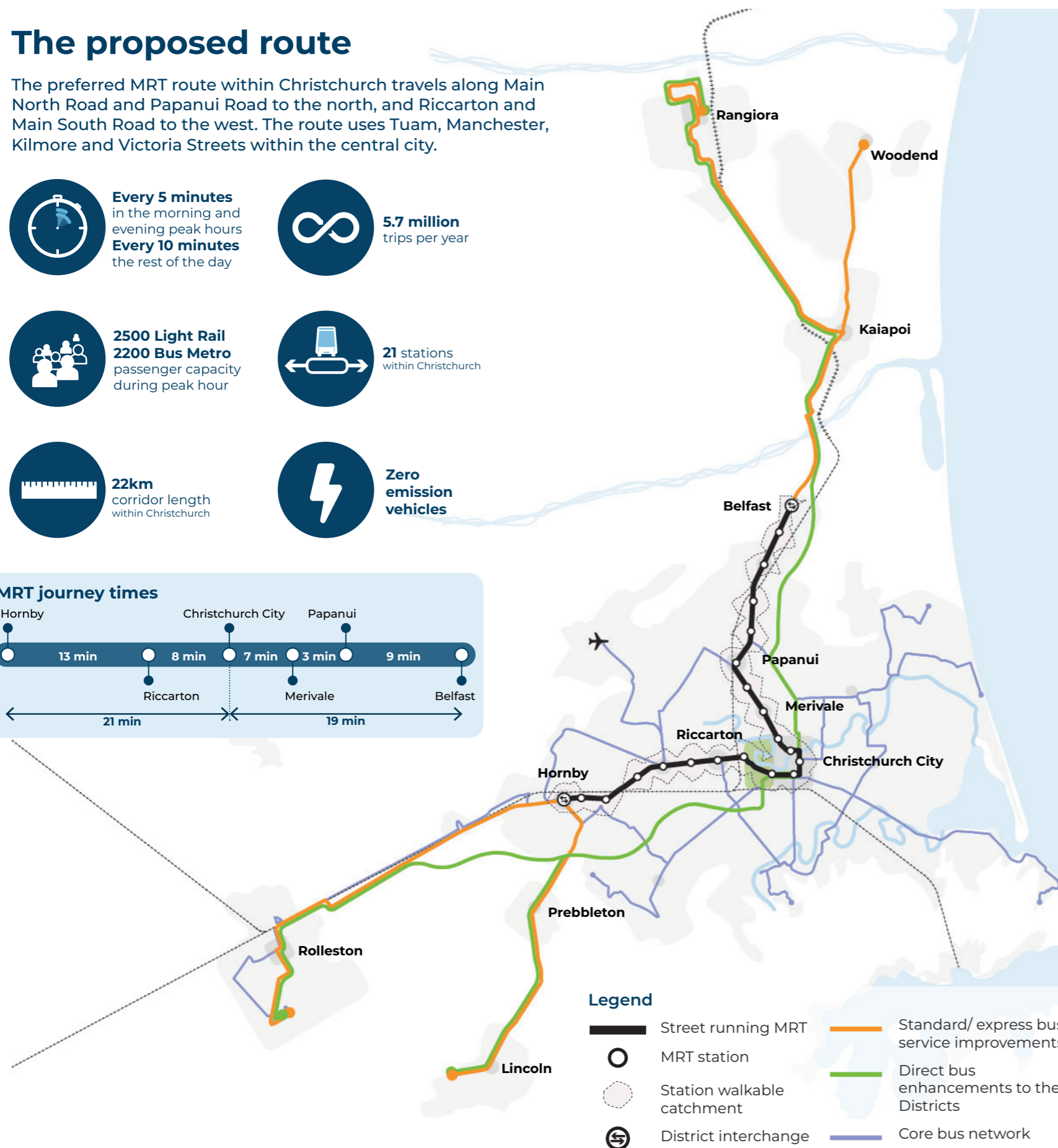
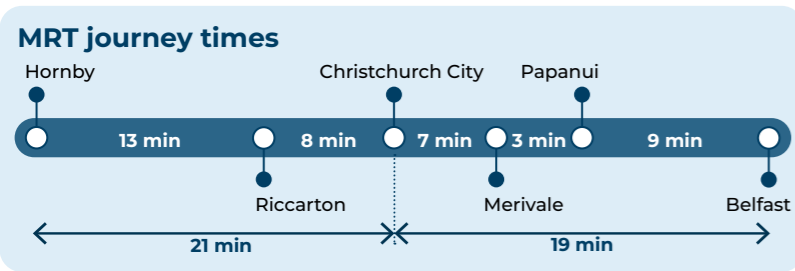
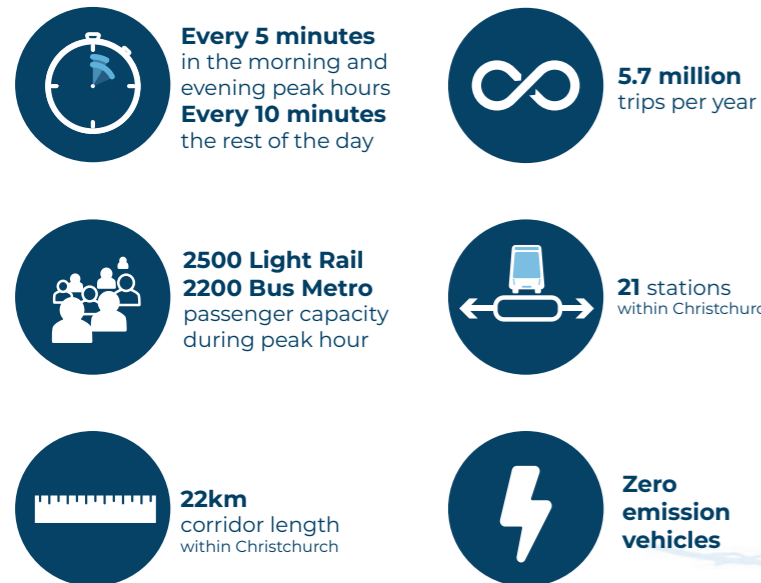


# Mass Rapid Transit - Shaping Greater Christchurch

## The proposed route

The preferred MRT route within Christchurch travels along Main North Road and Papanui Road to the north, and Riccarton and Main South Road to the west. The route uses Tuam, Manchester, Kilmore and Victoria Streets within the central city.



## What is MRT?

Mass Rapid Transit is a step up from conventional public transport, being a quicker, more frequent and reliable, higher-capacity public transport service that operates on a permanent route (road or rail) that is largely separated from other traffic. It will move more people more quickly and reliably to where they want to go. This could be in the form of light rail or bus metro.



George Street Light Rail - Sydney



Brisbane Bus Metro - Brisbane

## A step-change for public transport

Greater Christchurch is planning for the future by investing in public transport. The 'Public Transport Futures Combined Business Case' (PT Futures) was completed in 2021 and will optimise our existing Public Transport network and services. MRT builds on this, by providing a longer term solution in conjunction with wider spatial planning for Greater Christchurch and regional and local transport plans. Integration of MRT with the public transport, walking and cycling networks are integral components to be developed further.

## Connecting Greater Christchurch

The proposal includes further enhancements, beyond PT Futures connecting MRT to the Districts to provide a consistent user experience. These additional improvements include:

- Direct Bus Services:** These travel non-stop between the Districts and the city, with the route travelled depending on traffic conditions. These services will be enhanced by increasing frequencies to every 15-minute in the peaks and every 30 minutes in the off-peak.
- Standard/ Express Bus Services:** These operate within the District and connect the Districts to the city via fixed routes and stop at each pickup/drop-off location. These services will be optimised in the context of the MRT offering, to ensure suitable internal District connectivity (Intra-district) and connectivity to MRT.
- District Park and Ride Facilities:** Will be enhanced and optimised to ensure they are correctly scaled, configured and spatially positioned to align with MRT. These will form multi-modal interchanges offering high quality facilities for people to comfortably transfer to MRT from a variety of modes including bikes.

## Project partners

The success of MRT requires a collaborative and co-ordinated approach. To date, this has included Waka Kotahi, manawhenua, Christchurch City Council, Selwyn District Council, Waimakariri District Council and Environment Canterbury through the Whakawhanake Kāinga Komiti and others.



# MRT will transform Greater Christchurch



## City shaping

MRT will be city shaping. It will stimulate intensification at stations and along the corridor. The scale and type of developments anticipated will be new for Christchurch, increasing its vibrancy. Taller buildings will reinforce the legibility and role of centres and enable more people to live and work in areas that are highly accessible.

\* All metrics have been reported as the difference between operational MRT in 2051 and the current state at 2021.



↑ **75%** homes located along the corridor\*



↑ **81%** jobs located along the corridor\*

### what the community said?

A significant majority of people (86%) agreed that growth should be accommodated through targeted intensification in centres and along public transport corridors.

## Accessibility

MRT will operate on a dedicated right of way enabling reliable and consistent travel time by avoiding conflicts with other vehicles. The high frequency of MRT enables users to 'turn up and go'. Travel times are faster than other options - in particular travel to and from the city centre. MRT stations will be integrated with the wider public transport, walking and cycling networks to ensure ease of access and improve connectivity.



**40%** of trips from Greater Christchurch to the Central City via public transport in 2051



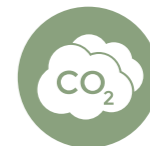
**19,200** additional households able to access the City in less than 30 minutes via public transport\*

### what the community said?

The most common factors identified to encourage more public and active modes of transport were more direct public transport routes and a more frequent and reliable public transport service.

## Reducing emissions and improving resilience

MRT will provide a reduction in private vehicle travel and increase public transport use by providing a safe and efficient alternative option to driving. Intensification around stations also reduces the need for travel as people can live, work and play within their local neighborhood. A greater proportion of people will have safe and convenient active and public transport options to access employment opportunities.



**467,500** tonnes of carbon saved per year\*

### what the community said?

Over one-third of people in Selwyn and Waimakariri Districts identified direct public transport to the central city as the best way to encourage people out of cars for travel to and from the central city.



# Now is the right time for MRT

## Why now?

Investing in MRT now will facilitate Greater Christchurch's future development into a transport efficient city. This will enable us to grow in a more resilient way, in alignment with the GC Spatial Plan, policy direction and international best practice. Without intervention it is likely development will result in a reduction in quality of life, disproportionate impacts on disadvantaged communities, constraints to economic growth and reduced ability to meet climate change commitments.

Christchurch is in a unique position in New Zealand. It has a chance to build an MRT system without tunnels on its existing, flat road network. This means MRT in Christchurch will be easier to build than similar projects in other major regions.

## Why it will work?

### Costs and benefits

The proposed MRT solution presents a healthy benefits cost ratio. This indicates certainty that it will return more value than it will cost to build and run, if the investment is made in time.

The services MRT will deliver, and the benefits to Christchurch and its communities are estimated to be 1.2 to 1.4 times its ongoing cost across its life.

Building the MRT solution in the coming decade will cost between \$3.0bn and \$4.0bn (including risk, uninflated 2023 NZD) depending on the type of vehicles and the energy system selected. The ongoing cost of operating the service will depend on the technologies selected and cost around \$60m per year. Because MRT will replace some existing buses, it will also save around \$20m per year.

### Mode of vehicle

In the next stage of work, with more details about future bus services funded by PT Futures, a type of vehicle will be selected for MRT. This will likely be either light rail on fixed tracks, or 'trackless' articulated electric buses (bus metro).

Choosing the vehicle mode with the cheapest upfront cost may not result in the best value for money across the life of the system. Light rail vehicles on tracks may prove to have a lower ongoing cost of operation, maintenance and renewal.

### Operational aspects

Mass Rapid Transit provides high frequency services that give communities confidence to choose where they want to live, work and play, without the hassle of traffic. There will be coordination of MRT with PT Futures' bus enhancements to the districts via quality interchanges integrating all modes. This will provide customers with high quality public transport services throughout the journey. Delivering MRT now will help to keep the rest of the network moving, making bus services and travel by car more efficient than in a congested city.

## Reshaping our urban environment

The introduction of MRT provides the opportunity to reshape our key centres and neighbourhoods along the route to maximise the benefits of high frequency travel and create more attractive, safer, vibrant and accessible centres. Increasing housing and employment density, and the scale and nature of the urban form in our main centres will be key to the success of MRT, along with reducing sprawl and having broader wellbeing and resilience benefits. MRT will initiate master planning exercises for a range of centres and neighbourhoods, with Hornby an example of the need to unlock its potential and maximise the benefits of MRT.

The MRT corridor ranges in width from 20-30m with 40% of the corridor being 20m wide. The design of the corridor will vary across the length of the route, responding to the local context and mode priority. The MRT lanes and stations will be consistently located at the centre of the road. A range of different design solutions will be considered at the next phase of the project with the goal of achieving high amenity public places.

## Understanding the impacts

MRT will present a number of broader opportunities and impacts. These will be investigated in detail in the next stages of MRT and include:

- **Restricted turns:** Right hand turns will not be possible across the MRT corridor impacting side streets and property access and requiring rerouting across the wider network
- **Parking:** Removal of on-street parking will be necessary given space constraints and prioritisation of MRT
- **Freight:** Integration with the freight network will be necessary, particularly in Hornby
- **Property:** Strategic land purchase opportunity will be necessary at key intersections and stations for amenity improvements
- **Transit malls:** Transit malls prioritise people, street-trading retail and hospitality, active modes, high quality public space and green infrastructure by removing private vehicle travel. Transit malls are being considered and will have an impact on the wider transport network that need further investigation
- **Constructability:** Accessibility impacts for both private residents and business will be considered during construction phases.

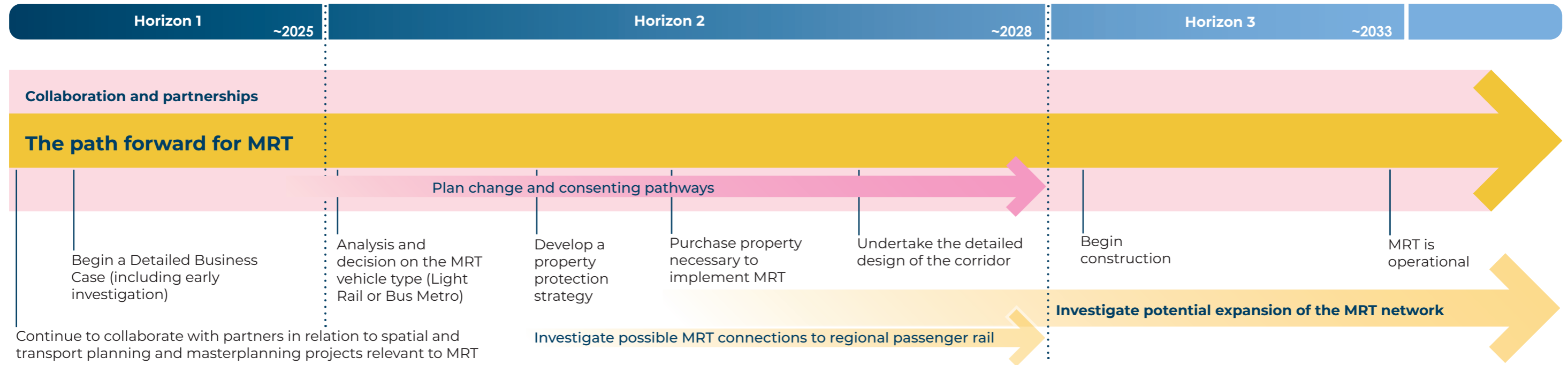




# What are the next steps?

If funding is confirmed for the project, the next step will be to investigate in more detail the design of the corridor and stations along the route. We also need to consider a range of technical issues like what consents and land acquisition will be necessary, how the transport network around stations might need to change and what

neighbourhood planning needs to happen. This stage of work is likely to take a few years. We will continue to work in partnership as the project develops to ensure integration with planning for the future of Greater Christchurch.

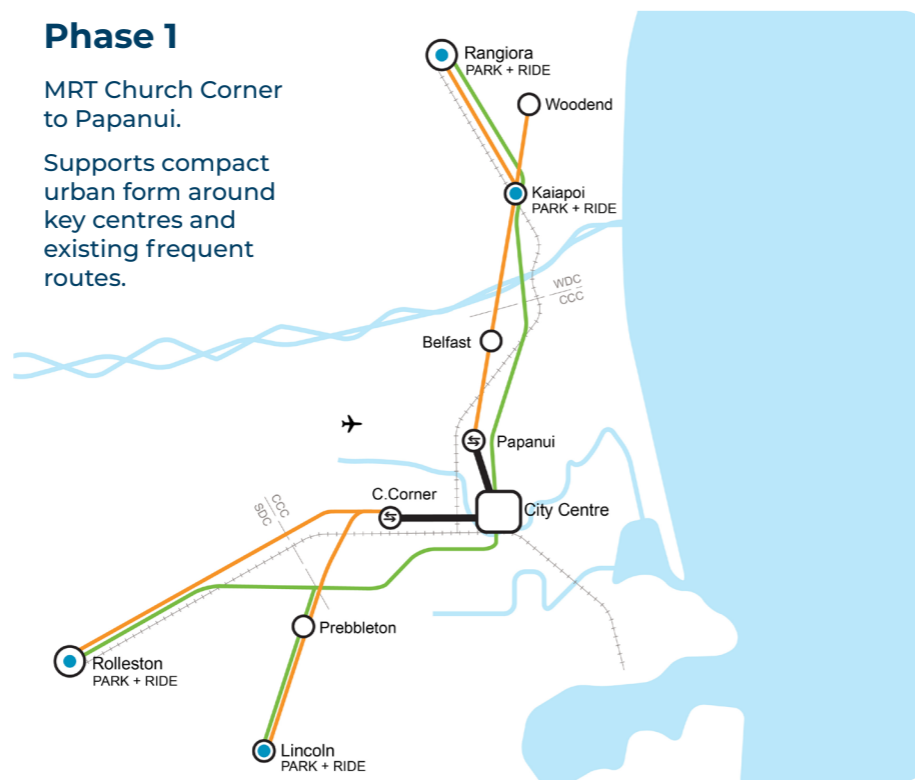


## Phasing

A phased introduction of MRT will ensure optimal value for money that allows for the timely provision of additional services. The staging strategy includes two phases assuming improved direct bus services from the Districts are already in place under PT Futures.

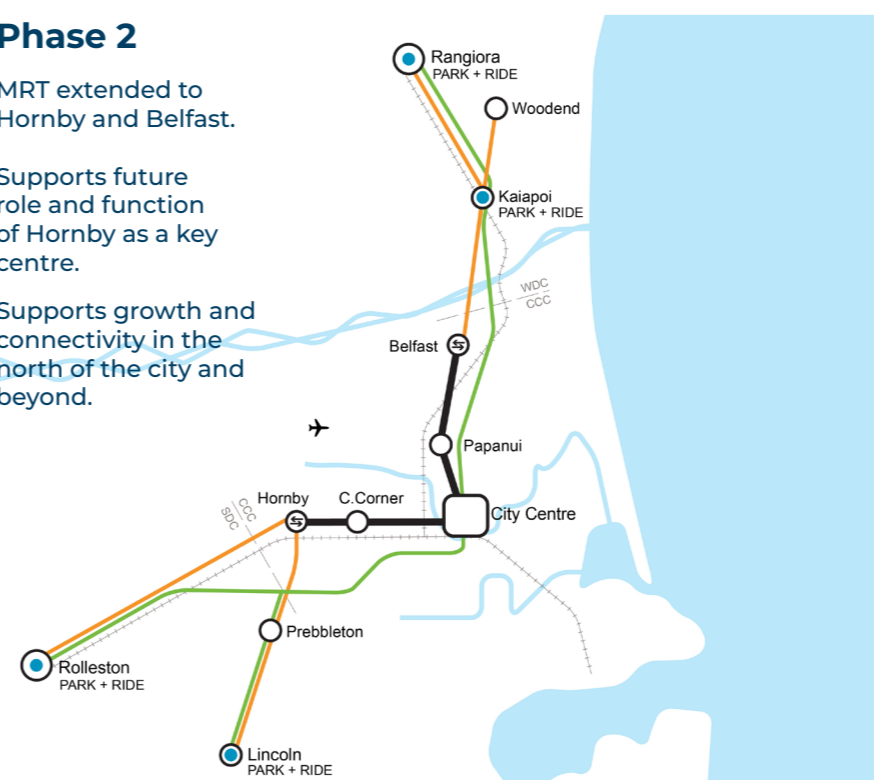
### Phase 1

MRT Church Corner to Papanui.  
Supports compact urban form around key centres and existing frequent routes.



### Phase 2

MRT extended to Hornby and Belfast.  
Supports future role and function of Hornby as a key centre.  
Supports growth and connectivity in the north of the city and beyond.



### Future phases

With the first phases of MRT in place, Greater Christchurch will be able to invest in further Mass Rapid Transit as the city grows.  
Extensions of the MRT corridor to the Districts, creation of an East to Airport corridor, or connection of the MRT corridor to future regional rail services are only some of the possible next steps.

#### Legend

- Street running MRT
- Standard bus service improvements
- Direct bus enhancements to the Districts
- Park + Ride facility
- District interchange (with provision for active modes)