

## Mode Options

Mass Rapid Transit for Wellington will be a street-based public transport system providing reliable and frequent services travelling on extensive designated lanes, largely separated from other traffic. Two mode options are being considered, along with other investments to support the existing bus network.

### Light Rail

Light rail is a form of public transport that uses large, steel-wheeled vehicles that travel on steel tracks. In city environments, these tracks are usually placed within lanes in the street which can either be dedicated solely to light rail vehicles or can be shared with other traffic.

Light rail provides a very high level of customer experience. The large vehicle size provides more interior space, improving customer comfort, while the steel tracks provide for a smooth ride. To achieve this, light rail has demanding design requirements that can require underground utilities to be relocated, road pavements to be strengthened and intersections redesigned to provide priority.

These complex works offer opportunities to transform the corridor where light rail will run. We can provide new space for pedestrians and cyclists, and create new places around the light rail stops. By doing this, we will stimulate urban development, delivering more new homes sooner, along with new retail areas, offices and educational facilities to support a vibrant city economy.

Our proposal for light rail in Wellington will create an 8 km route that travels from Wellington Railway Station to Island Bay. From the station to Newtown, light rail will run in dedicated lanes to ensure fast, reliable travel through congested parts of the city. Further south, there will be locations where light rail will share lanes with other traffic.

#### Key Facts:

- Steel wheels running on steel tracks
- Vehicle length: up to 43 metres
- Vehicle capacity: up to 300 people
- Comparable systems: Newcastle, Gold Coast, Canberra (Australia), Edinburgh (UK), Dublin (Ireland), Luxembourg.



*Example street layout for light rail*

## Bus Rapid Transit

Bus Rapid Transit (BRT) represents the highest standard of performance and customer experience that can be achieved by a bus-based transport system. Around the world there are different types of BRT, but each represents a significant investment to provide comfortable, high-capacity buses, operating along routes separated from other traffic and supported by attractive stops and stations.

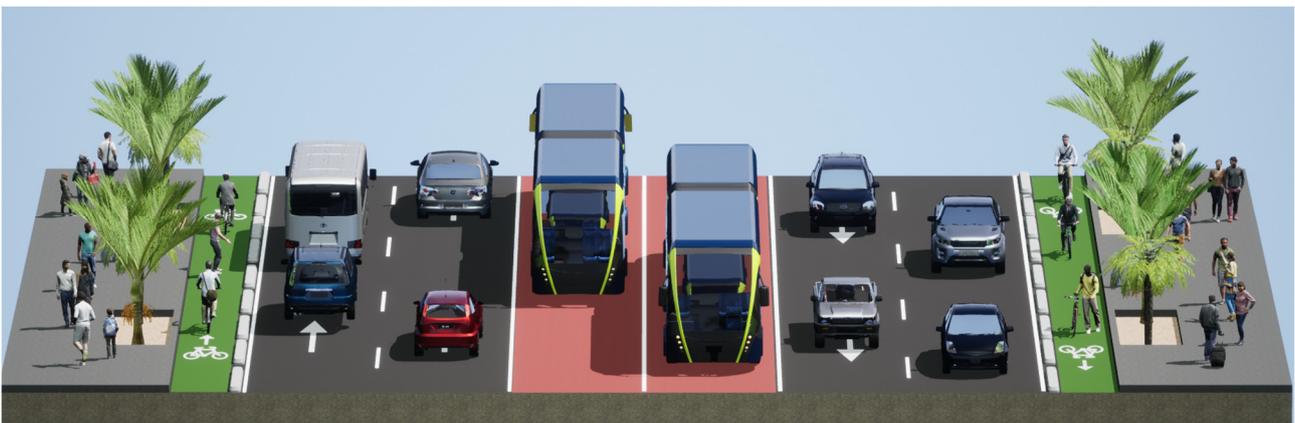
For Wellington, we have developed a style of BRT tailored specifically to the needs of our city. The design of the BRT infrastructure will look very similar to the proposed light rail infrastructure. Dedicated lanes will be provided, station layouts will be similar and the same opportunities for refreshing the corridor will be available to renew underground utilities, upgrade road pavements, improve intersections and create new pedestrian and cyclist facilities. By locating the dedicated lanes in the centre of the road, we will avoid conflicts caused by vehicles accessing driveways and side streets.

Vehicles used for BRT will be of a higher standard than normal buses, more advanced and more comfortable. They will be an articulated design: longer and high capacity, but without the height issues that double decker buses experience. Articulated buses offer better performance in inner city areas, providing additional doors to allow faster passenger movement.

Commencing at Wellington Railway Station, dedicated BRT lanes will be constructed to both Newtown via the Basin and to Miramar and the airport via a new Mt Victoria tunnel and Kilbirnie. Beyond the dedicated lanes, the BRT services will continue further to destinations such as Island Bay, Miramar North, and Seatoun. This is where BRT shows its advantage, allowing services to travel beyond the main corridor into areas where dedicated BRT lanes are either not needed or they are too difficult to provide. Minor improvements will be made along the outer part of these routes to upgrade bus stops and to address specific local problems.

### Key Facts:

- Rubber tyres running on bitumen pavement
- Vehicle length: 18 metres
- Vehicle capacity: 110 people
- Comparable systems: Pau, Metz, Amiens (France), Montreal, Calgary (Canada), Houston, Indianapolis (USA).



*Example street layout for bus rapid transit*

## Enhanced Bus

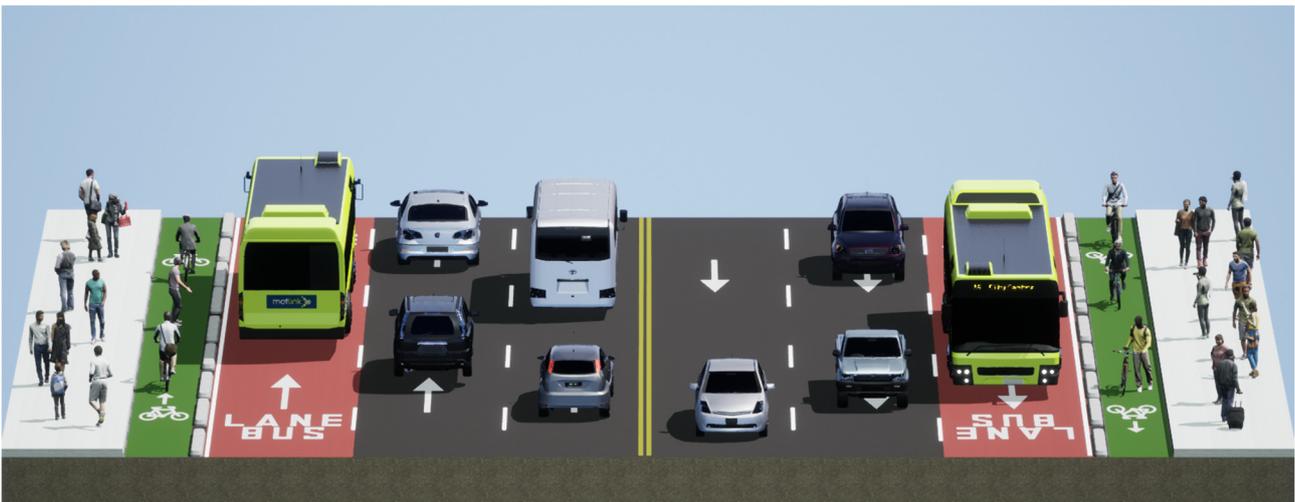
Our Enhanced Bus solution is an alternative approach for improving public transport in the eastern suburbs. Designed to provide extensive bus priority improvements, it represents a solution that is less intensive than Bus Rapid Transit yet still capable of improving travel times and reliability.

This option will provide kerbside bus lanes for long continuous sections of bus routes, combined with signal priority at intersections and new bus stops. However, it will not provide a transformation of the corridor like Bus Rapid Transit would, with limited scope to improve the roadway, relocate underground utilities or provide walking and cycling facilities. The routes and vehicles used would be the standard Metlink bus network, which will be fully upgraded to electric buses by 2030.

Depending on the option, the Enhanced Bus solution will either travel via a new Mt Victoria tunnel, or via the existing Hataitai bus tunnel.

If travelling via a new Mt Victoria tunnel, we will create continuous bus lanes from Miramar town centre to Courtenay Place via Kilbirnie and the Basin. This will cut up to 10 minutes from the journey in the morning peak period, with the potential for even more time savings due to our improvements to the Golden Mile and the waterfront quays.

In options that don't provide a new tunnel, buses will continue to travel via the Hataitai bus tunnel and the local streets of Mt Victoria and Hataitai. To improve safety and customer experience, streets in Mt Victoria would be upgraded with the relaying of pavement, adjustments to kerb positions and parking, improvements to drainage and to intersections. New bus stops and shelters would also be provided. In Hataitai, similar improvements would be made. Further investment would allow for the creation of bus priority measures in some locations, and adjustment to local traffic movements.



*Example street layout for enhanced bus*