
ADDITIONAL WAITEMATĀ HARBOUR CROSSING ROUTE PROTECTION

Introduction

An Additional Waitematā Harbour Crossing (AWHC), operated in conjunction with the existing Auckland Harbour Bridge (AHB), has been identified as a solution to provide much needed additional carrying capacity, resilience for the Auckland transport network, and sustainability for the movement of freight. The AWHC will also play a critical role in supporting New Zealand's economic and social wellbeing, as well as the expected growth in Auckland's population.

The NZ Transport Agency project team and newly appointed consultants are in the initial stages of scoping the work required to future proof the route for the AWHC project and provide some planning certainty for Aucklanders. The project team consists of the Transport Agency, a legal team (Chapman Tripp) and planning/engineering team (AECOM/Opus). The work is planned to begin in early 2016 and is expected to continue to 2017.

History and current situation

The AHB currently provides the only direct 'cross-harbour' road link between Auckland's city centre and the North Shore. The approaches are vulnerable to queues and delays caused by traffic congestion and incidents. In regard to other transport modes, there are no dedicated bus lanes or walking and cycling facilities on the AHB.

When the bridge was built, it took 4 years to build and was completed and opened to the public in May 1959. Between 1968 and 1969, two extension lanes (commonly referred to as the clip-ons) were added to each side of the bridge, which increased capacity from four lanes to eight lanes.

The Transport Agency has been monitoring actual traffic load against capacity over time. In 2007 an increase in the number and weight of heavy vehicles was identified and resulted in the need to strengthen the extension lanes and also to restrict heavy traffic until the strengthening works were completed in 2010. Further strengthening of the extension lanes is not possible.

Why another crossing?

Auckland's population is growing at a rapid rate and is predicted to grow by up to one million people over the next 30 years. This growth will increase the demand for transport and place further pressure on an already congested network.

An additional crossing, together with the AHB, will provide more crossing options including public transport, walking and cycling.

With the soon to be completed Western Ring Route, an additional crossing will improve the resilience and performance of Auckland's transport network, increasing capacity and providing alternatives during incidents and events.

Traffic predictions indicate that weight restrictions for heavy vehicles are likely to be needed on the AHB to ensure the longevity of this iconic structure. Without an alternative crossing option, the potential restrictions could significantly impact the social and economic wellbeing of the region and nation as the AHB plays a critical role as a major freight corridor.

Furthermore, an additional crossing will provide another channel for essential services such as water, electricity, gas and telecommunications.

Options

Considerations for an additional crossing of the Waitematā Harbour have been underway since the AHB was built in 1959. Since 1988 the Transport Agency has been involved in eight separate studies about an additional crossing.

A study in 2008 identified 159 possible crossing options, which included multiple alignments and transport modes. The study also looked at various technologies such as monorail and sky cabs. All options were assessed against key criteria, including economic development and regional growth, connectivity, environmental sustainability, social and community effects, and affordability. Phase 2 of the study included a more detailed investigation of three shortlisted options, and added implementation to the list of key criteria. Based on this thorough assessment, the recommended option was a tunnel for passenger transport and general traffic between Onewa and Esmonde Road on the North Shore, and the Central Motorway Junction in central Auckland. This recommendation was supported by the five client organisations, which included Transit New Zealand, Auckland City Council, Auckland Regional Council, North Shore City and Auckland Regional Transport Authority.

The recommended option was the basis for Notices of Requirement (NoRs) lodged in 2009. At the time there was ongoing debate over the form of crossing. It was therefore decided to put the NoRs on hold until this debate was resolved. A Form Assessment Study was subsequently undertaken to investigate the crossing options (as either a bridge or tunnel). This investigation looked at both options for the crossing from a planning, engineering and cost perspective. The result of this assessment found that a tunnel would have less visual, environmental and land use impacts than a bridge.

Following the form assessment, the Transport Agency chose to take a proactive approach with the public and incorporated the bridge vs. tunnel debate into the Draft Auckland Plan consultation. Public submissions indicated the preferred option was a tunnel. The Auckland Plan formally adopted and identified the AWHC as one of three strategic projects required to serve the growth in Auckland, in addition to City Rail Link and AMETI and East-West Link.

In turn, the Government announced its support for a tunnel in preference to a bridge in 2013.

Future proofing the route

The Transport Agency has recommenced steps to future-proof the route and is working towards preparing NoRs in early 2016 to designate the land required for the AWHC project to provide planning certainty for Auckland. A coastal occupation consent will also be sought for the tunnels across the harbour. This is the first of many steps required to consent and work towards building the AWHC. Route protection will be based on a tunnel crossing between Onewa and Esmonde Road on the North Shore and the Central Motorway Junction in Central Auckland.

The Transport Agency is working closely with key stakeholders within Auckland Council and Auckland Transport to ensure alignment on objectives and outcomes with the Auckland Plan and wider transportation strategies for Auckland.

Rapid transit

Under current plans the additional crossing will not prohibit any modes of transport being included in the project, including rapid transit. The Transport Agency and KiwiRail served NoRs in December 2009 to protect the proposed route, as the respective road and rail designating authorities.

Currently, the Transport Agency is working closely with partners including Auckland Transport, Auckland Council and KiwiRail who will identify the most appropriate rapid transport option that could meet the future travel needs to and from the North Shore and the rest of Auckland. Auckland Transport is investigating when the Northern Busway is likely to reach its capacity, what opportunities may exist to extend capacity of the busway further and what role rapid transit would play and the associated timing.

The Northern Busway currently provides a dedicated, high capacity, passenger transport facility linking the North Shore and the CBD. It also uses general traffic lanes over the AHB and bus lanes and shoulders into the CBD. The network planning work shows that the busway has sufficient capacity to provide for passenger growth up to 2040.

One of the advantages of an additional crossing would be the ability to have dedicated bus lanes across the AHB, improving the reliability of public transport.

The public transport and rapid transit element will inform and integrate with the overall route protection process for the AWHC.

Current crossing concept

The current crossing concept is outlined in Figure 1 below. The AWHC will provide a motorway to motorway connection across the harbour connecting between Onewa and Esmonde Road on the North Shore and the Central Motorway Junction in central Auckland. The AHB will continue to provide a connection to and from Auckland's CBD.

The tunnels could include four tunnels (i.e. two for motorway and two for rapid transit). The Transport Agency has also explored the feasibility of combined tunnels (i.e. two multi-modal double decker tunnels).

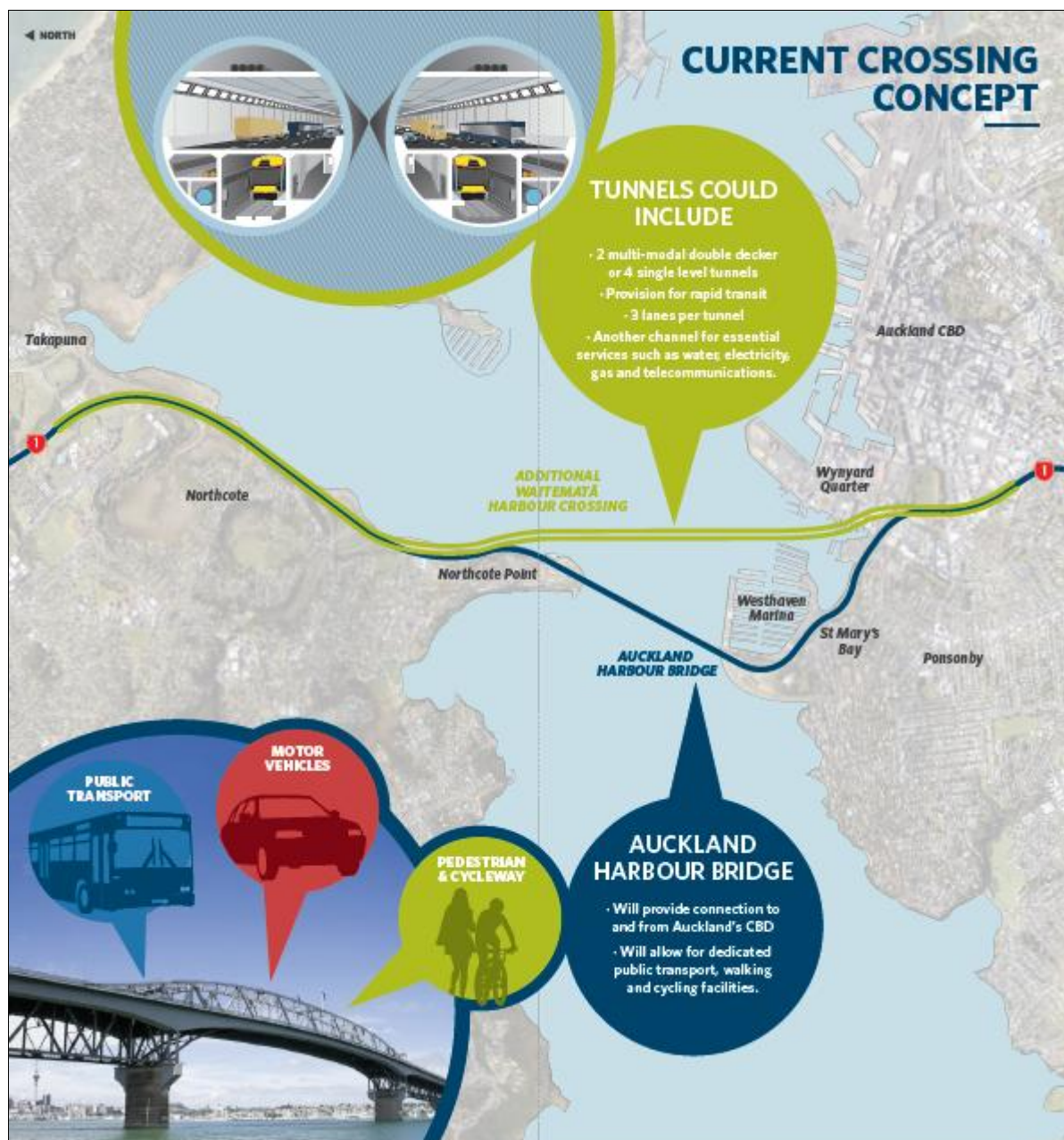


Figure 1: Current Crossing Concept

Preparation of NoRs

The documents that are planned to be prepared in 2016 are to include NoRs, a coastal occupation consent, and an Assessment of Environmental Effects (AEE). Further work will be done to refine previous concepts and determine where the additional crossing could connect on either side of the harbour.

As part of this phase further investigative work will be undertaken including a network alignment plan. This plan will include a wide range of inputs, for example population growth forecasts, current and future traffic modelling and projected impact of future transport projects.

As the project team prepares the indicative design for the NoRs, the Transport Agency will inform stakeholders and the community about the history of the project and next steps. Once the indicative design is prepared, the Transport Agency will share the design, consult with key stakeholders and engage with the community in the lead up to lodgment.