

## Sarawia Street Level Crossing

### Frequently Asked Questions

#### 1. Why do you need to close the crossing

There are several benefits from closing the crossing, including improved safety by removing a level crossing. However, the main reason AT is seeking to close the crossing is to allow improvements to rail frequency to take advantage of the more efficient electric trains to be introduced over the next few years.

The crossing at Sarawia Street is the busiest and most complex crossing in the country and plans to move to a more frequent peak timetable are not feasible while the crossing remains. Currently, should there be any delay to trains in and around Newmarket, there is limited capacity to recover from the delay. This situation will worsen if more frequent services are introduced to the point that reliable services cannot be maintained.

Removing the crossing allows KiwiRail to relax rail safety restrictions currently in place that prohibit trains from advancing to the signals adjacent to the crossing while they wait for signals ahead to clear. Because of the steep grade leading from Newmarket Station to the crossing, there is a risk that a train attempting to stop for the crossing will overrun and collide with a vehicle using the level crossing, so trains are held at Newmarket Station until the level crossing barrier arms have again lowered. If the crossing were removed and this safety restriction lifted, then the additional capacity to have a train depart the station and wait at the signals by the crossing is equivalent to adding another platform to Newmarket Station.

KiwiRail have prepared a document explaining the operational and signalling safety issues further. It can be found at <http://www.aucklandtransport.govt.nz/improving-transport/sarawia-st-crossing/Documents/kiwirail-fact-sheet-sarawia-street.pdf> .

#### 2. Who benefits from the closure?

Primarily, the closure benefits rail passengers who will experience fewer and shorter delays and, with the timetable improvements, more frequent passenger services. Considering the number of people using the rail system and passing through Newmarket to Britomart, and forecast increases in rail patronage, this amounts to a significant overall benefit.

Residents in Laxon Terrace, Youngs Lane and lower Sarawia Street will no longer be disturbed by bell noise from the crossing.

Level crossings are identified as a safety concern, and AT and KiwiRail have a policy of removing these where feasible.

#### 3. How does AT assess the economic case for its projects?

AT follows the same or similar business case assessment process as other national and international public sector organisations, and is consistent with NZTA's Economic Evaluation Manual (EEM). A significant component in any investment decision is assessing the economic benefits using a benefit cost calculation, assessing all benefits anticipated by the project balanced against the cost of the project.

This provides a ratio to estimate how much benefit can be gained per dollar of investment, and provides a way of comparing different solutions against one other.

A business case including benefit-cost analysis was prepared for each option under consideration and the results are:

- Furneaux Way link road (single lane) and Cowie St pedestrian overbridge: 3.0
- Newmarket Park link road (two lane) and Cowie St pedestrian overbridge: 2.8
- Cowie Street two-lane road bridge: 2.2
- Furneaux Way link road (two lane) and Cowie St pedestrian overbridge: 1.2

The benefit-cost analysis took into account the time savings for rail passengers by removing the crossing and any disbenefits due to extra journey times for vehicles and pedestrians. The safety benefits of removing the crossing were not factored into the economic evaluation of the options.

#### **4. What are the cost estimates for each option?**

The cost of the options is estimated to a high level only currently, and is subject to change as these are refined. Presently, options and sensitivities range in costs from \$2.6m to \$11.9m.

#### **5. Is the crossing really unsafe?**

Although no one has been seriously injured or killed on the crossing to date (a car was clipped by a passing train at the crossing, a very serious near miss), it remains the busiest crossing in the country in terms of rail movements and this will become busier as passenger rail frequency increases.

The barrier arm is in operation 30% of the period between 7:00am and 9:00am currently, with this expected to increase to 40% following planned improvements to timetable frequency.

A similar position exists in the evening peak period and vehicles will be forced to wait for extended periods while trains pass through, increasing the temptation to circumvent the barrier and cross illegally. Removing the crossing also supports AT and KiwiRail's policy of removing level crossings where possible to eliminate the safety risk altogether.

There are mitigations short of closing the crossing which would address KiwiRail's concerns, such as installation of a second barrier arm and/or manning the crossing, but residents leaving/entering Laxon Terrace and Youngs Lane would still experience periods of time when the barrier arm will be lowered much of the time.

These mitigations would not address the restrictions placed on rail operations by the crossing.

#### **6. What about the City Rail Link (CRL)?**

There are a number of constraints on the wider rail network that will need to be addressed before the train capacity envisaged for CRL can be realised. Level crossings are one crucial area and Sarawia Street is likely to be on the list of potential constraints.

The required CRL upgrade programme will result from an operating plan that is to be developed as part of the Rail Development Strategy.

#### **7. Could a pedestrian/cycle crossing replace the current vehicle crossing?**

Originally, AT believed that this might be a feasible option, reducing the safety risks of the current crossing by replacing the barrier arms with a full pedestrian maze similar to the crossing at Kingdon Street, Newmarket.

However, after further discussion with KiwiRail it was determined that a pedestrian only crossing at that location does not remove sufficient safety concerns for KiwiRail to be able to lift the restrictions on trains leaving Newmarket Station.

Instead, we are considering other pedestrian and cycle access options such as a pedestrian bridge to retain access to Newmarket Park.



## 8. What are the traffic congestion impacts of each option?

The number of vehicles travelling into and out of Laxon Terrace and Youngs Lane averages 400 vehicle trips per day. This is well within the District Plan expectation that Local Roads carry up to 1,000 vehicles per day. AT commissioned Flow Transportation Specialists to model the congestion impact of diverting the Laxon Terrace and Youngs Lane traffic to alternative roads under each option considered. The results show minimal impact under any of the options considered, but the most significantly affected is the Newmarket Park road option with a 8 second average increase in waiting time for some residents exiting onto Ayr Street in the evening peak.

Sarawia Street under any option:

- 35 less vehicles p/hour in the morning peak (30/5 outbound/inbound) onto Parnell Rd
- 25 less vehicles p/hour in the evening peak (10/15 outbound/inbound) onto Parnell Rd
- Effect: The morning peak delays will reduce 1 second from the current wait time of 27 seconds to 26 seconds for right turning traffic.

Furneaux Way link:

- Effect: Morning peak delays exiting James Cook will increase 1 second from the current wait time of 15 seconds to 16 seconds on average. No identifiable effects at other times or at other intersections

Newmarket Park road:

- Effect: Evening peak delays for right turning traffic from Newmarket park carpark access to Ayr St will increase 8 seconds from the current wait time of 65 seconds to 73 seconds on average. No identifiable effects at other times or at other intersections

Cowie St Bridge:

- Effect: Morning peak delays for right turning traffic exiting Cowie St will increase 2 seconds from the current wait time of 47 seconds to 49 seconds on average.
- Evening peak delays for right turning traffic exiting Cowie St will increase 5 seconds from the current wait time of 56 seconds to 61 seconds on average.

No identifiable effects at other times or at other intersections

The full results from the Flow traffic study can be found here: <http://www.aucklandtransport.govt.nz/improving-transport/sarawia-st-crossing/Documents/sarawia-traffic-flow.pdf> .

The economic impacts of additional vehicle and pedestrian travel times under some options has also been considered, and are included within the business case assessment of benefit-cost ratio provided in 3, above.

## 9. What about new developments, e.g. in Broadway Park?

While new housing developments may add congestion to traffic in the Newmarket area, the low volume of traffic entering and leaving Laxon Terrace and Youngs Lane will have a minimal effect as shown above on congestion in the surrounding streets.

## 10. What about existing traffic congestion in Newmarket – don't you need to fix that before adding additional traffic?

The scope of this project is not sufficient to take in wider traffic congestion in the Newmarket and Parnell areas and a considerably larger budget and more complex project would be required to do so.

The low volume of traffic entering and leaving Laxon Terrace and Youngs Lane is unlikely to have a noticeable effect on congestion on Parnell Road, Remuera Road or Broadway.

**11. If you add more trains, won't residents suffer from more noise?**

AT is introducing electric trains over 2014-2015 and this is the catalyst for a new, higher-frequency timetable. The new electric trains are significantly quieter than the existing diesel trains, so although trains will be more frequent, they will be quieter and the net effect should be an improvement for residents.

Removing the crossing will also remove the bell noise currently required for safe operation of the crossing.

**12. Will wheelchair and cycle access be considered if you close the crossing?**

Yes, each option makes allowance for continued wheelchair and cycle access as well as pedestrian access into Laxon Terrace and to Newmarket Park.

**13. What about building an underpass under the rail line?**

Opus prepared a report on this option for Auckland City Council in 2004 and the comparative cost and complexity of constructing a tunnel under the rail line through basaltic rock at Sarawia Street compared to building a road bridge means that this option has not been progressed. Any tunnel would need considerable space on both sides of the crossing in order to slope down under the rail, and there are significant space constraints to achieving this. Additionally, the existing vehicle entrances for the last two-thirds of Sarawia Street would be severely affected and alternative access would require extensive land acquisition.

**14. What about providing access via the Mobil Station on Parnell Road?**

One suggestion from the December 2012 public forum is to consider the option of a road through the Mobil petrol station on Parnell Road and building an access from there down to Laxon Terrace using the rail tunnel to span the rail corridor.

However, this would cause traffic from Laxon Terrace and Youngs Lane to exit onto Parnell Road close to the intersection of Parnell Road and Ayr Street, which is already a busy intersection. Additionally, the land acquisition costs and construction costs associated with strengthening and building over the rail tunnel make this unlikely to be a superior option to those already under consideration.

We also considered acquiring adjacent properties to the south west of the Mobil Station and building a bridge from there, but this provided similar benefits to a Cowie Street bridge with the added complication of adding more congestion to the nearby busy Parnell Road/Ayr Street intersection.

**15. Why don't you decide which options to progress based on a vote from nearby residents rather than the cost of the options?**

AT has a responsibility to make investment decisions on a value for money basis on behalf of all Auckland ratepayers. Although the opinions of residents will be taken into account, this cannot be our sole deciding factor in which option to progress.

We understand that there is no solution that allows removal of the level crossing that will be approved of by all, but we will endeavour to balance these concerns to come to the best solution possible for everyone.

**16. What are the next steps for the consultation process?**

At the public forum in December 2012 survey response forms were distributed. Further forms are available here [https://aucklandtransport.asia.qualtrics.com/SE/?SID=SV\\_07DsehCBMVctUyh](https://aucklandtransport.asia.qualtrics.com/SE/?SID=SV_07DsehCBMVctUyh) and we will be contacting local



residents shortly to remind those unable to attend the meeting or who have not yet completed a survey form that they have the opportunity to do so.

We aim to present a refined proposal to Auckland Transport's senior management in mid 2013. Once a preferred option has been selected there will be subsequent consultation with the affected parties to discuss how this might affect them, and to discuss the detail of the option to be progressed.

### **Furneaux Way**

#### **Is this option safe for pedestrians?**

A Traffic Safety Review has been carried out for this option and items have been highlighted that will require further attention during any developed design. However fundamentally this option is safe and can be implemented effectively.

The Traffic Safety Review can be found on the Auckland Transport website

<http://www.aucklandtransport.govt.nz/improving-transport/sarawia-st-crossing/Documents/furieux-way-safety-review-sarawia.pdf> .

#### **Won't this be too narrow for fire service vehicles, rubbish trucks, etc?**

AT will ensure that the road will be wide enough to allow access for all service and emergency vehicles.

#### **This is a private road, and maintenance is paid for by the body corporate. Why should they pay for the additional wear and tear of Laxon Terrace and Youngs Lane traffic?**

If the opening up of Laxon Terrace to Furneaux Way is selected as the preferred option, it is expected that Auckland Transport would assume the maintenance responsibilities for Furneaux Way. Further details around this agreement would be required and need to be discussed with the Broadway Park Residents' Society.

### **Cowie Street Bridge**

#### **Will a Bridge from Cowie Street have a risk of damaging the foundations of nearby houses?**

Whilst there is a risk, it is highly unlikely and in any event of damage, the property would be insured via Auckland Transport's selected contractor.

Note, any construction that is carried out on a bridge and the supporting structure will have been thoroughly designed and engineered to minimise the risk of any ill-effects on the surrounding environment, including pre-existing houses.

Geotechnical analysis of the ground is a vital part of the design process.

#### **Isn't building a bridge an expensive solution given the low number of people affected?**

Yes, however Auckland Transport are considering both the cost and non-cost evaluation criteria of each solution.

#### **Doesn't the bridge option have the lowest impact in terms of numbers of residents affected?**

Each option has different impacts on residents, neighbours, users and visitors, all of whom need to be considered in the determination of the selected solution.



## **Newmarket Park Road**

### **Wouldn't the Newmarket Park through road affect the least amount of people?**

A road through Newmarket Park would be removed from most of the immediate residents in the area but would have the widest effects on the broader community, as there would be loss of public amenity within the park.

### **What about the negatives to the wider community by taking park land?**

As above, the acquisition of park land for the use of a public road would detract from the amenity of the park for users. A road would occupy park space, add hazards for the public and wildlife, and risk isolating the north western section of Newmarket Park.

