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Let's Get Wellington Moving: Infrastructure New Zealand feedback

Infrastructure New Zealand is the peak industry body for the infrastructure sector and promotes best practice in national infrastructure development through research, advocacy and public and private sector collaboration. Infrastructure New Zealand members come from diverse sectors across New Zealand and include infrastructure service providers, investors and operators.

This submission represents the views of Infrastructure New Zealand as a collective whole, and may not necessarily represent the views of individual member organisations.

Summary

We support the Let's Get Wellington Moving initiative (LGWM, the Initiative) and commend the partner organisations for facilitating a comprehensive long term evaluation of Wellington's transport options.

We congratulate the LGWM partners on the preparation and publication of significant research and analysis on transport options for Wellington. An open and transparent consultation process is critical to achieving the project's objectives.

We have become seriously concerned at the level of congestion affecting Wellington's road network and the speed at which performance has deteriorated.

An enduring and effective transport response is required to be complete within the next decade, when LGWM analysis shows transport performance will deteriorate rapidly.

The comparatively short window available to transport authorities to plan, consent, fund and deliver an effective solution means progress must be immediate and rapid.

The only option we consider likely to provide an enduring and effective solution is Option D.

We have not seen evidence which shows that any of the options put forward through the engagement document will “get Wellington moving” in a manner consistent with the expectations of users and residents of Greater Wellington.

We find no evidence in the significant volume of supporting documentation that road network congestion and reliability performance will improve from today’s unacceptable levels.

We consider that there is more work to do before a preferred option can be identified and that completing this work should be a national and regional transport priority.

Dynamic road pricing must be considered as part of the response to Wellington’s transport challenges.

Wellington congestion is very bad

The LGWM initiative is important.

Wellingtonians are not imagining their transport problems and, if anything, overlook just how poor performance of their road network is.

Auckland’s infamous and even worse congestion performance distorts New Zealand perceptions of what traffic in comparatively small cities “should be” like.

The mapping technology TomTom provides comparative information on travel time delay across most of the world’s leading cities. Using data from 2016, it found Wellington average vehicle trips take on average 34 per cent longer than free flow. This is only marginally better than Auckland (38 per cent) and is enough to rank the city 19th worst out of 200 small cities (population less than 800,000).

Notably, Wellington is the highest ranked new world city. No other city under 800,000 residents in North America or Australasia has worse congestion than Wellington, as measured by the only consistent international comparative data.

Wellington suffers from a particularly restrictive geography, but this level of performance needs to be significantly improved to enable a prosperous future for New Zealand’s second largest city and national capital.

Wellington congestion is getting rapidly worse

Alarming, off this low base, Wellington congestion is getting rapidly worse.

Between 2015 and 2016, TomTom registered a 4 percentage point increase in congestion (that is, average delay of 30 per cent in 2015 increased to 34 per cent in 2016), one of the larger increases across all 200 small cities.

Annual TomTom data is reinforced by data produced for the LGWM initiative and reveals what Wellington commuters and businesses intuitively know, which is that Wellington congestion is getting worse every year.

Projections made through the LGWM initiative show that average travel times on key routes will worsen by up to 25 per cent in the next decade.

We therefore have a situation where one of the very most congested cities of its type in the world is agreed to be getting more congested and this trend is expected to continue.

Congestion matters

Improving congestion is important.

Private vehicles provide the “backstop” for movement around cities. They absorb all travel which cannot be undertaken by active or public transport and are responsible for the majority of movement in and around Wellington.

Heavily congested roads disproportionately impact users who have no option but to drive, including not only freight and commercial vehicles, but the very young, very old and others.

Heavily congested roads reduce productivity, employment, social opportunities and the attractiveness of Wellington as a place to live, work and visit.

The Initiative has identified a \$130 million annual congestion cost today rising to \$180 million in a decade.

These estimates are significant, yet still underrepresent the real cost felt by Wellingtonians, which is measured in frustration and lower quality of life.

They also do not provide any indication of “who” bears the cost of congestion.

Congestion disproportionately impacts lower income earners who cannot afford higher amenity homes – access to transport being one critical component of overall amenity and therefore home value.

Quality transport makes lower value land feasible for development, accelerating the delivery of new homes and improving access for those who cannot afford to live closer to employment.

Addressing Wellington’s chronic congestion is not just an economic but an equity issue.

Congestion can be improved

Growth is almost always the underlying cause of worsening congestion, but does not appear to be the only cause of congestion in Wellington.

The number of motor vehicle occupants crossing the CBD cordon during the morning peak and number of people using a car to travel to work have both decreased over the course of this century.¹

Fewer vehicles seem capable of moving through central Wellington today than was the case over a decade ago and this is contributing to worsening congestion.

Indeed, the decline in motor vehicle occupants has been very significant – around 20 per cent, or 7000 people during the morning peak. This is more than the entire growth in rail patronage over the same period.

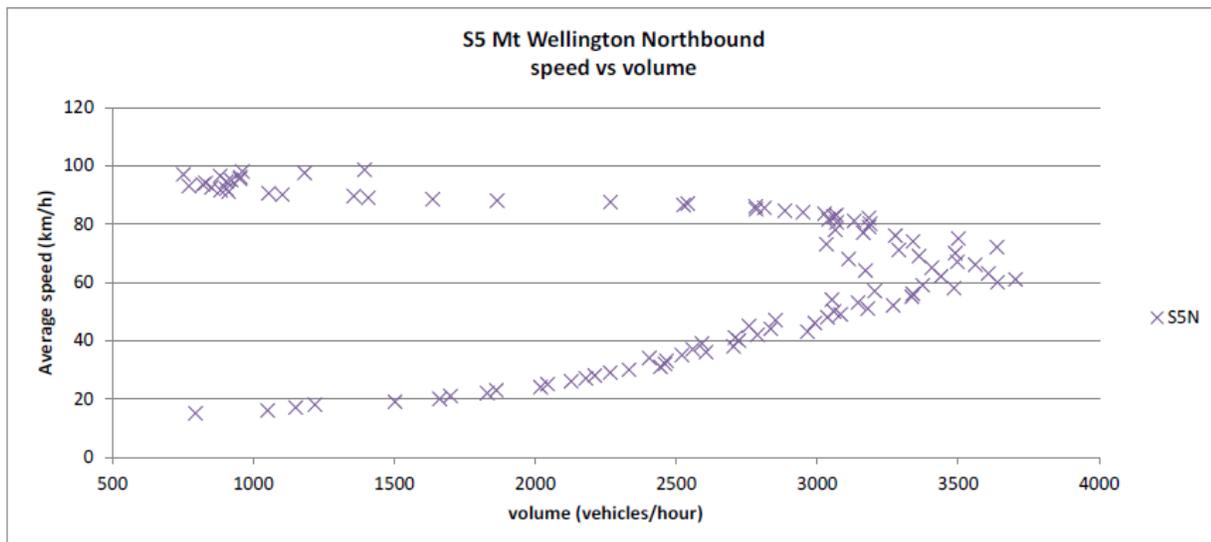
¹ Let’s Get Wellington Moving, Data Report, August 2017.

Vehicle flow data is variable, but clear evidence of declining capacity suggests that built environment changes in and around the central city may have materially reduced the capacity of the network and/or that Wellington has reached “hyper-congestion”.

Changes to the Wellington transport network over the past decade should be investigated to understand whether traffic flows have been negatively impacted. It appears the network may have more capacity than is currently being realised.

Alternatively, or in addition, Wellington road capacity may now be so over-extended at busy times that flows are reducing as gridlock extends across the network. Figure 1 below illustrates that road corridors have a fixed capacity and that once that capacity is reached, each additional vehicle reduces the number of vehicles which can use the corridor.

Figure 1: Average speed vs flow²



If the central Wellington road network as a whole, but most importantly the corridor between the airport and Ngauranga Gorge, is operating in the lower half of the curve illustrated in Figure 1, establishing a charge to access roads in the area could in fact increase the number of vehicles able to use the network at busy times.

Establishing a road pricing system would then both increase revenue, providing a funding mechanism for reinvestment in the network, and optimise supply and demand.

Reinvestment which adds capacity and increases the flow of vehicles will result in further revenue for reinvestment.

² Ian Wallis and David Lupton, The Costs of Congestion Reappraised, 2013.

At some point, additions to capacity will carry a cost which is less than the revenue provided by user charges.

This point is the equilibrium of supply and demand and should be the long term objective for the LGWM initiative.

Wellington can improve congestion and other critical transport outcomes and nothing less than an improvement in accessibility should be considered acceptable by LGWM partners.

We support the Let's Get Wellington Moving initiative

In this context, we strongly support the Let's Get Wellington Moving initiative.

We would like to commend the LGWM partners, the Wellington City Council, Greater Wellington Regional Council and the New Zealand Transport Agency on the scope of evidence gathered.

The Initiative takes an holistic and detailed approach to understanding transport and land use issues and options across a constrained, difficult and critical part of the national transport network.

We commend the transparency of the study and thank the partners for making available detailed research relating to land use and transport in central Wellington.

The Initiative needs to prioritise critical outcomes

However, we hold some concern that the generally comprehensive approach and demonstrably genuine attempt to consider all land use and transport facets relevant to the central city has complicated the key findings.

We consider that the most relevant and important aspects of the LGWM Initiative have been lost among and crowded out by less important objectives and outcomes.

As an independent organisation examining this issue in detail for the first time, we are left unclear as to what the actual outcomes will be of the different scenarios.

Most simply, we do not know, and cannot find in the documentation available, evidence that Wellington will indeed "get moving" with any of the scenarios.

Will the transport situation in the study area and across affected parts of the regional network be better or worse than today under any of the scenarios?

It is clear that each option provides improvement in ten years-time over business as usual, but this is an extremely low bar to set and is inconsistent with the very essence of the Initiative, which is to "get Wellington moving".

We expect to see demonstrable improvements in today's poor congestion performance, but cannot find evidence of this in the data available.

The evidence is clear that Scenario D provides the best transport outcomes, but how does each scenario perform when both costs and benefits are examined?

We know the cost of congestion today, but what will congestion cost Wellington 10, 20 and 30 years from now under each modelled scenario?

Which scenario will deliver the greatest benefits for the Wellington economy as a whole?

Which scenario will unlock the most housing and the greatest number of jobs?

These are not minor details. They represent the very answer to whether or not Wellington will be “moving”, as understood by the thousands of Wellingtonians with an interest in the Initiative and in access to, from and through the central area.

They tell us whether it is worth spending more or less to get Wellington “moving”.

They tell us whether authorities are addressing issues in line with public expectations or not.

Other critical information which is provided is drowned out by other less important information.

For example, in the Engagement Document, which will for many will be the only document they read, more reliable travel times for general traffic sit alongside “easier to walk in the city centre”.

No one would dispute the fact that making walking safer, faster and more attractive is a key transport outcome, but the metric used to demonstrate improvement is as modest as reducing by 25 per cent the wait time at a single intersection.

Under the same scenario (Scenario A), and seemingly of equivalent magnitude, it can be seen that no change in accessibility to and from the airport is anticipated.

It is, in the first instance, extraordinary that any option for the “Let’s Get Wellington Moving” initiative could propose doing nothing to arrest a rapid decline in the most critical economic corridor in the lower North Island, let alone situate this very serious issue alongside minor local convenience.

It is not even clear in the Engagement Document that Scenario A does nothing to address today’s congestion problems. In fact, Scenario A tolerates a decline in performance of up to 30 per cent³ for a locally, regionally and nationally significant corridor linking an international airport to regional businesses and residents in our capital city and region.

Wider network performance is less clear, but our assumption is that performance on other key corridors deteriorates at a similar pace.

Would an interested party without the time and analytical capacity of, for example, Infrastructure New Zealand be cognisant of the seriousness of the situation and consequence for movement from reading the Engagement document? We don’t think so.

³ LGWM, Central Case Do Minimum Testing, August 2017.

The risk is that feedback on the LGWM engagement document does not reflect the actual interests of the hundreds of thousands of Wellington businesses and individuals who rely on the central Wellington transport system every day.

The Auckland Transport Alignment Project

We draw attention to the Auckland Transport Alignment Project (ATAP).

ATAP was established in the wake of misalignment across central and local government transport priorities.

A key issue in Auckland was a large and often conflicting set of objectives, principles and outcomes which clouded understanding of what the real imperatives were for movement in and around the city.

ATAP cut through this confusion with a small and measurable set of transport priorities which enabled transport officials to focus on the issues of greatest importance.

In the case of Auckland, these were reduced down to:

- Access to employment and labour
- Congestion performance
- Public transport mode share
- Net benefits from transport investment
- Value for money
- Other (including resilience, safety and environmental performance)

We think it is critical that this same data is obtained through the LGWM initiative.

In the Wellington context, we think it is necessary to identify for each land use-transport scenario:

- Change in travel times (all modes) to/from employment morning and evening peak 2016, 2026 and 2046.
- Total travel time delay on the road network, 2016, 2026, 2046.
- Public transport patronage and mode share 2016, 2026, 2046.
- Programme benefit-cost appraisal.

We are unclear whether Wellington transport authorities have the tools available to measure and model these outputs, but consider investment in the capability to do so would be worthwhile, given the scale of expenditure in question.

Production and analysis of this data would enable a much more robust decision to be made around the best long term transport programme for Wellington.

Our preliminary support is for Option D

On the basis of evidence we have seen, only Option D is likely to satisfy public perceptions that an enduring response to growth which truly “gets Wellington moving” has been identified.

The reason for this is that only Option D materially provides for general traffic movement to and from the airport, which we consider to be nationally significant infrastructure and critical to Wellington's social and economic development.

We do not support any option which does not provide a marked improvement in general traffic access between the Wellington airport and the Wellington motorway.

We support rapid transit

On the basis that general traffic access can be improved along the Ngauranga to airport corridor, we support the reallocation of general road capacity to rapid transit.

We consider that rapid transit is now required from Wellington Station through the city.

We do not hold a particular view on what form rapid transit should take, other than the option must be resilient.

We acknowledge the superior urban form benefits of light rail, as well as the additional cost, but our primary concern is how light rail would perform in a major earthquake.

There are three concerns we hold:

1. Can light rail be designed and constructed at reasonable cost to become as robust as bus rapid transit in withstanding earthquake damage?
2. How long will it take to restore bus versus light rail services in a major earthquake?
3. What is the impact on other (principally underground) services of constructing light rail? Water, energy and telecommunication services must not become less resilient with delivery of light rail.

We draw attention to the possibility that no human will ever drive a bus rapid transit service in Wellington. It is possible that by the time such a service is delivered that fully automated buses are a more cost effective option, especially on a dedicated route separated from general traffic.

Autonomous buses would not only reduce ongoing operational costs but increase the capacity of the system and deliver a superior driving experience.

Under this scenario, the urban form advantages of light rail would reduce significantly.

There may be a need to do more

The key question we retain currently is whether even Option D meets the needs of Wellington and New Zealand now and into the future.

We are satisfied that walking, cycling and public transport improvements, as outlined under Option D, are adequate to meet the needs of the city over the next decade at least.

We are not convinced that capacity and vehicle flow improvements are sufficient to meet general traffic needs over the next decade, let alone beyond.

We would welcome the opportunity to examine additional data which may not have been provided through the public submission process, particularly any analysis which indicates how the central Wellington road network will perform under each scenario.

Similar information has previously been captured through the ATAP process and we encourage LGWM to draw on ATAP experience.

We thank LGWM for this opportunity to submit.