Basin Workshop

Time:	9.00am – 12:30pm	
Date:	Friday 6 July 2018	
Location:	NZTA, L5, Majestic Centre, Willis St	
Attendees:	Facilitator Acting Project Director GWRC Owner Interface Manager WWC Chief City Planner NZTA Manager Design Portfolio 1 WCC Owner Interface Manager GW Regional Transport Manager	Stantec Technical Consultant AECOM - Civil Infrastructure Manager WCC Transport Strategy Manager WCC Programme Development Team Lead LGWM Engagement Lead NZTA Principal Transport Planner
Apologies / Circulation		

Workshop Notes

Item	Notes	Who	Due Date
	Key points		
	• Grade separation of local and State highway traffic is recommended as part of the RPI. • A number of layout options were discussed at the workshop. • It was agreed that an option which extends Sussex Street to the north and has the state highway underneath with an at-grade off ramp from SH1 eastbound (located north of Arras Tunnel) has the potential to deliver benefits while minimising adverse effects. • Such an approach works with the existing topography, takes new infrastructure away from the Basin Reserve, fits in with the existing street pattern and minimises above ground structures. • This approach will be developed further and discussed at a follow-up workshop on Thursday 12 July. • If the approach (once drawn up with vertical alignment, right number of lanes, etc) is deemed to be suitable, it will be taken forward as the preferred design as part of the RPI.		
1.0	**Introduction**		
1.1	**Workshop purpose and format** The purpose of the workshop was to undertake a structured evaluation of the proposal to grade separate at the Basin Reserve and to determine a preferred approach to include in the RPI. The WCC Transport Strategy Manager presented a brief history of the Basin, and some data and context information. The Civil Infrastructure Manager presented a summary of physical constraints (heritage sites, underground services, property requirement, consenting requirements, construction methodology and impacts). The Stantec Technical Consultant clarified some of the information presented at the Te Aro workshop: • The transport benefits stated were for the full RPI programme • We can assess key elements of the programme by subtracting them from the model to gauge their impact (eg Mt Vic, Basin, Karo Drive, Terrace Tunnel).		

	• Preliminary modelling of the full RPI with the cordon charging suggests significant reduction in traffic on the central city streets and increase traffic on the State highway and Kent/Cambridge. • Cordon pricing and Basin grade separation are interdependent. The current RPI proposal for grade separation was then debated.		
2.0	**Discussion**		
2.1	**Modelling assumptions** • We need to test whether a fourth SH1 southbound lane is necessary if we have pricing. • We need to test HOV lanes from Nauranga to Mt Vic tunnel along SH1. • Need to test how many lanes are required around the Basin with pricing. Reducing the width of the bridge is desirable (former Basin Bridge was two lanes wide).		
2.2	**Design principles** We developed a set of principles to help us assess alternative prosposals. These are grouped around the project principles: **Liveability** • Minimise infrastructure footprint • Enhance amenity and access to the Basin • Enhance viewshaft down Cambridge and Kent terraces • Improved legibility • Complete the greenway linking town belts • Enhance heritage and character • High-quality urban design and environmental management • Enhance streetscape of Kent/Cambridge • Enhance processional route **Efficient and reliable access** • Reliable access to/from hospital • Reliable access to/from airport • Controlled access to/from CBD • Access to/from schools • Reduce conflicts between modes and movements • Enhance active modes access and PT priority **Reduced reliance on private vehicles** • Prioritise people and services movement ahead of general traffic (the right modes on the right corridors) **Safety for walking and cycling** • Improve safety, especially for the schools **Network resilience** • Ensure resilience and longevity **Cost effectiveness** • Affordable **Deliverability** • Enhance Waitangi Stream, heritage biodiversity		

	• Avoid heritage and ecological impacts In addition to these principles, we also reiterated Save the Basin's principles which centre around: • Protection and enhancement of historic character • High quality urban design and environmental management • Promotion of appropriate role for Basin area in public transport		
2.3	**Consideration of alternatives** We asked whether a **north-south tunnel** under the reserve would address the conflicts around the Basin. This option has advantages because of fewer visible (ie above ground) structures. A tunnel may have constructability challenges. The most significant issue is the lack of connectivity between the SH and the local street network, particularly for westbound SH1 traffic wanting to access the CBD via Cambridge Terrace – this movement would need an over-bridge hence removing the advantage of a tunnelled solution. A **tunnel around southern and western sides of the Basin** was investigated by Boffa / Aecom. This was very expensive and disruptive. The most significant issue however was reconciling the levels between the entrance of Mt Vic tunnel and a new SH going under Dufferin Street – the current steep grade would have to be steepened further which would have significant impacts. An **angled bridge extension to Sussex Street** was considered (current RPI proposal). The presence of an elevated structure, the length of the bridge, the imbalance down Kent/Cambridge (all local traffic routed to the west side of the Basin) and poor connectivity to the hospital were identified as weaknesses of this arrangement. A **straight extension to Sussex Street** (over westbound SH1) with at-grade signalised junction where the extension meets the eastbound SH1 was considered. This reduces the impacts of elevated structures but requires more land take. Agreed to assess this option against our design principles. The detail of this assessment is presented in Appendix 1. **Agreed** to develop the last option further for possible inclusion in the draft RPI. Workshop planned for Thursday 12 July to agree proposal to be taken forward in RPI.		
2.4	**Further work on straight extension proposal** Issues for further investigations • Effect on Vivian St – if no westbound access to SH1 from Kent Terrace, what is the effect on Vivian St in terms of traffic volumes • Relationship to Taranaki interchange – what movements are provided for and what is the effect on the wider network eg do we need a northbound on-ramp or will this compromise LRT on Taranaki • Future-proofing for PT – what provision for future PT can be weaved into the option • Access to St Mark's School – do we need an underpass to provide safe access between the church car park (used as drop-off point by parents) and school • Full walking and cycling provision – are all movements catered for • Creche location – what is the best outcome from a heritage perspective • Oversize route – do we need a route through the Basin from north to south		
3.0	**Review Te Aro realignment in light of Basin discussion**		

	Issues for further investigations • LRT integration • Consider on and off ramps along the cut and cover – test removal of Taranaki ramps and effects on wider network • Effect of location of cordon – eg Brooklyn traffic should be able to exit SH1 and avoid charge		
4.0	**Basin at-grade improvements**		
	Need to reconsider early improvements now that wider RPI is known – are they compatible, do they still represent value for money, do they create difficulties for delivering the RPI later on? Need specific set of principles to assess early improvements – consistent with the strategic direction of the RPI. Improvements appear to prioritise vehicle access over other objectives – need to look at all early improvements to find the right balance. Need to consider efficacy of doing two lots of changes at the Basin. Timing and agreement of grade-separation changes may impact on when/if at-grade changes are done. **Agree** to reassess early improvements in a workshop against principles.		

Appendix 1 – Initial assessment of Sussex St straight extension proposal against design principles

Objective	Pros	Cons
Liveability	• Minimise structures • Reintroduces block structure • Enhance viewshaft • Built form Kent & Cambridge • Enhances walking access to Basin • Moves impacts away from Basin • Reduces footprint to the SE • Potential water sensitive design	• Private property take • Overall footprint increased to NW (but potential for development)
Efficient and reliable access	• Safer access to schools • Maintains hospital access • Enhances access to airport • Maintains access to CBD • Improved opportunities for walking and cyclists • Improved walking and PT access to the Basin	• No westbound access to SH1 from Kent Terrace – requires Vivian St to be two-way (test whether this results in more traffic on Vivian St)
Reduced reliance on private vehicles	• Only works with pricing and wider network improvements	• No dedicated PT lanes (depends on number of lanes across short bridge)
Safety for walking and cycling	• Improved for schools and access to Basin through high-quality separated facilities	• Loss of at-grade facilities / connectivity (pedestrian underpasses below SH1 could address this issue – one to provide access to Basin and one for access to school)
Network resilience		• Flooding potential of pedestrian underpass • If no Taranaki off-ramps, fewer links to hospital (need two major routes)
Cost effectiveness	• Similar to angled bridge option	
Deliverability	• Elements can be built off-line	• Requires lowering of Arras Tunnel approach / ramp • Constructing over SH1 is risky.