

Petone to Melling Walking & Cycling Link - Price Level Adjustment

Commercially sensitive

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Purpose

This paper seeks Board approval for a Price Level Adjustment (PLA) to complete the Petone to Melling Walking & Cycling Link project.

Recommendations

It is recommended the Committee recommends the Board:

- **Approves** a funding increase to Waka Kotahi NZ Transport Agency of \$24.51M (P95) for the Petone to Melling Walking & Cycling Link project at a 100% FAR (\$24.51M out of the NLTF) from the Walking & Cycling Activity Class, raising the total approved funding from \$38.65M to \$63.16M (P95).
- **Notes** this PLA changes the BCR from 1.2 to 0.6 for the Petone to Melling project. This project forms one section of the Wellington to Hutt Valley corridor (W2HV); the updated BCR for the entire Wellington to Hutt Valley corridor is 0.9, a decrease from 1.0.

Strategic relevance

The Petone to Melling Walking & Cycling Link (the project) will deliver on the key objectives in the Government Policy Statement on Land Transport 2018, which aims to create a multi-modal transport system that reduces deaths and serious injuries and improves social and environmental outcomes. As the requested project cost allocation exceeds \$50M, and as the BCR will fall below 1, Board approval is required for this funding increase.

Background

This project will connect the RiverLink project at Melling and the southern two legs of the W2HV cycleway – Te Ara Tupua (Attachment 1), resulting in improved safety, increased capacity and

improved mode choice. The project has received support from Mana Whenua, local councils, key stakeholders, walking and cycling groups and the wider public.

Key milestones for the project are:

- *August 2017* - Initial funding of \$17.2M approved based on initial Detailed Business Case (DBC) estimates. This was before the detailed design was completed and erroneously no allowance was made for costs associated with Management, Surveillance and Quality Assurance (MSQA), KiwiRail, Waka Kotahi managed costs and risk contingency.
- *February 2018* - § 9(2)(b)(ii) A PLA was put forward to cover the funding gap but rejected as further information was required to understand the BCR of the entire W2HV corridor. The project was put on hold.
- *December 2018* - The Board endorsed the seaward side option for the Ngauranga to Petone section to progress to pre-implementation, which enabled the Petone to Melling section to progress given the BCR of the W2HV corridor.
- *February 2019* - A PLA was approved which increased the funding to \$33.26M (subsequently increased to \$38.65M to account for revised admin and overhead rates). The PLA included an estimate for MSQA, KiwiRail, Waka Kotahi managed costs, escalation and P50 contingency of \$2.8M for five specific identified risks.

Key issues

Additional funding is required to complete the project

Since the current funding allocation was confirmed, construction of the cycleway has commenced, revealing additional costs largely due to ground conditions within the narrow corridor, unidentified services, associated delays, redesign and KiwiRail costs. These have resulted in the need for additional funding to complete the project.

There had been no access to the corridor to complete investigations prior to tendering, and incorrect assumptions made in the cost estimation were not sufficiently allowed for in the contingency, i.e. assumptions of minimal services and minimal contaminated land (\$500k allowance in the contingency). § 9(2)(g)(i)

A breakdown of items making up the requested Price Level Adjustment is provided in a table as **Attachment 2**.

Value Engineering

With ground conditions being the main driver of increased costs there are few opportunities to reduce cost. However, the following opportunities are being implemented which impact on urban design but do not reduce expected benefits of the project:

- Replacement of pre-cast fascia panels from the underpass ramp walls at Normandale with a shotcrete finish ~\$250k
- Cost savings on innovating streets style crossing at Marsden St ~\$100k

These savings have already been deducted from the funding request put forward.

There are further opportunities totalling ~\$450k being explored with the projected cost outcomes included in the modelling of the contingency value.

Alternative options considered

A number of alternative options were considered:

- Continue with the current scope (i.e. without value engineering opportunities taken). This would increase the total project cost by circa \$0.5M to \$63.7M.
- Stop the project. No benefits would be realised and the sunk cost is \$41M.
- Delay project completion; this would reduce the immediate funding requirement to circa \$3M, however no benefits would be realised until the project is completed. This option would also attract additional costs of at least \$10M when compared with completing the project now.

The preferred option is to seek approval for the PLA.

Investment assurance

Based on the requested PLA, the adjusted BCR for the Petone to Melling cycleway is 0.6, whereas the updated BCR for the entire W2HV Corridor is now 0.9.

An IQA has been completed, and proceeding with the project was the preferred option for the following reasons:

- Stopping the project would realise no benefits.
- The majority of the risks have now been realised and the project team is confident that the remaining scope can be delivered within the proposed funding.

Affordability

The Petone to Melling Walking & Cycling Link is a priority project for the Walking and Cycling activity class.

Attachment 3 represents the current funding position of the activity class. Should the current cost escalation trends in the Activity Class continue, without some project delays or deferrals (e.g. moving out beyond the 2021-24 NLTP period) it is likely there will be an overspend/breach of the Board approved investment target of \$618M for the 2021-24 period.

Several more PLAs of a similar scale are expected in this activity class over the next year, including in response to COVID-related cost pressures. For example, Auckland Transport has identified ~\$17M of PLAs within the Activity Class to be progressed this calendar year.

Risks

As the implementation has progressed many of the risks have already been encountered, assumptions tested, and overall cost uncertainty reduced. A contingency of \$4.6M included in the funding request has been calculated in accordance with Waka Kotahi process for projects over \$50M and endorsed by our commercial team. This incorporates the P95 expected outcome of risks in the risk register and a \$1.25M allowance for unknown risks, which gives confidence that the proposed new funding is sufficient to complete the project and no further request will be submitted.

However, no allowance has been made for COVID-related costs (previous claims have been funded external to the project budget), including extraordinary escalation above historic inflation indices.

Significant risks remaining are:

- **Reduction in KiwiRail corridor safety stand over resource.** The project has struggled to obtain sufficient KiwiRail resourcing to meet programme demands and there is a probable risk of existing resources being diverted to other projects. This has not been solved at an operational level and will be escalated to obtain a recommitment from KiwiRail to support project outcomes as per the KiwiRail Project Agreement.
- **Lack of property agreement with Greater Wellington Regional Council (GWRC).** Without a property agreement in place the programme is at risk of delays in starting construction at Petone Station. GWRC has agreed to surrender the carparks needed in return for a lease of replacement carparks on Waka Kotahi-owned land nearby. Our Transport Property team has confirmed that we can hold the proposed land for a public work, and a draft Agreement to Lease is being prepared for GWRC.

Lessons learned

Lessons have been captured will be assessed as part of the continuous improvement work underway in Transport Services to identify any further opportunities for improvement. Corrective actions are to be reported on.

- **Alternative procurement options for high-risk projects which have a limited work corridor and are unable to complete detailed survey work.** Possible use of a mobilisation contract to relocate services or an Early Contractor Involvement contract. This would allow a decision to be made before full site establishment about whether to continue with the design philosophy, revisit earlier options, or take a different design approach, e.g. retaining walls and lighting on spread footings instead of piles. This would also reduce delay and disruption claims from land access delays.
- **Ensure rigorous cost estimation practices are followed.** Cost estimation of the Feb 2019 PLA was not in accordance with our standards. Only five specific risks were captured in the contingency, and no contingency was allocated for unidentified risks, particularly important in a project with a high degree of uncertainty and long duration.

Health & safety, customer/stakeholder & environmental impact

The impact of this decision is considered by Waka Kotahi to be positive in terms of health and safety, the public and other stakeholders, and the environment.

Related Documents

Wellington to Hutt Valley Walking and Cycling Link Programme Approval to Proceed, December 2018 Board paper

Attachments

- Attachment 1** Project Map
- Attachment 2** Breakdown of the PLA
- Attachment 3** Activity Class Funding Position

Attachment 1

Project Map



Released under the Official Information Act 1982

Attachment 2

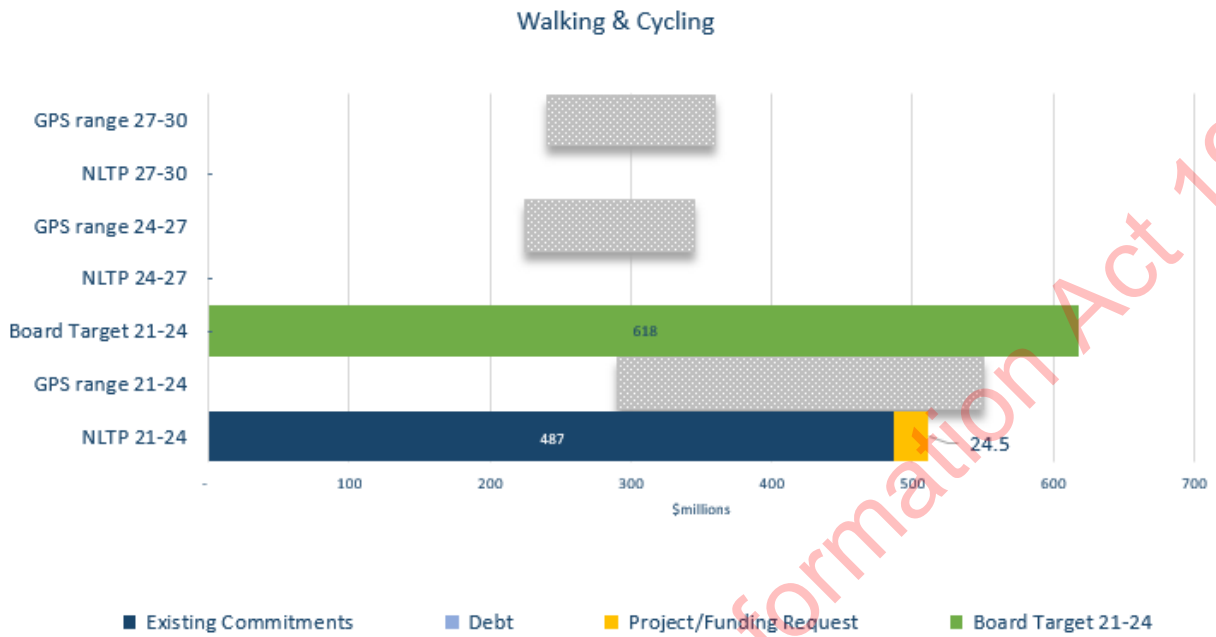
Breakdown of the PLA

Petone to Melling Walking & Cycling Link – PLA Summary		
Implementation Estimate (P50) – Feb 2019		\$33.3M
Utility service clashes	Multiple unidentified utilities present in the rail corridor resulted in increased service detection/relocation, redesign costs and a change in scheduled quantities and materials such as low depth foundations and retaining walls. This has also resulted in a loss of productivity in the form of delay and disruption claims of \$2.6M .	\$8.3M
Design components not identified	Contaminated land disposal \$4.5M, CCTV and lighting of a compensation carpark for lost carparks at Petone Station (GWRC), advertising hoardings, retaining wall to fence connection.	\$5.8M
KiwiRail approvals and processes	Delays in engineering approvals meant the contractor was unable to continue works resulting in \$2.6M delay and disruption claims. Stand over and professional services costs from Kiwirail. Traction pole replacement programme.	\$4.2M
Escalation in tendered price and increase in Measure & Value quantities	Due to the project being put on hold while the BCR of the W2HV corridor was evaluated, the contract price was renegotiated at an increase of \$1.4M . There has also been an increase in M&V quantities.	\$4.0M
Procurement Method	An independent MSQA consultant (WSP) was appointed. However, AECOM own the design model and due to the amount of service clashes have had to redesign many components and have still been heavily involved in the project.	\$1.8M
Scope Change	Dowse Interchange connection (+\$0.4M), less value engineering (-\$0.8M).	(\$0.4M)
Other	Increase in admin costs (\$3.6M), contingency (\$1.8M), MSQA (\$1.0M - due to project duration increase), other physical works costs (\$0.6M), managed costs (\$0.2M) and a Hutt City Council capital contribution (-\$1.0M).	\$6.2M
Project Cost Total		\$63.2M
Less Current Project Allocation		(\$38.7M)
Funding Required		\$24.5M

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Attachment 3

Activity Class Funding Position



Existing commitments are \$487M, within the Board target range. However, including probable activities yet to be funded, the NLTF forecast for the Activity Class is at \$643M (before this PLA is applied).

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