Appendix D Workshop Minutes

Meeting Notes

Investment Logic Mapping Workshop

Ashburton North-South Connectivity Business Case

Date/Time:	03 December 2020, 1430-1530
Place:	Ashburton District Council (ADC)
Next Meeting:	TBC
Attendees:	Crissie Drummond, Brian Fauth, Ian Hyde, Neil McCann (ADC) Matt Soper (Stantec)
Apologies:	-
Distribution:	As above

Item:	Action
General The purpose of the meeting was to review the draft long-list that had been developed internally by Stantec (provided on the 1st December 2020).	-
Discussion points • Resilience was one of the main reasons why a second bridge close to the current SH1 bridge alignment was not preferred, • The long-list evaluation process will look to build upon previous analysis, reconfirm, with a focus around the strength to which option meets the Investment Objectives. • Clip-ons to the existing bridge have been considered by ADC as a potential short-term intervention. However, these would be short in length and in a few isolated locations, rather than along the entire length of the SH1 bridge. The intent is to provide areas where cyclists can bypass one another. • The subdivisions in Tinwald are progressing ahead, with parts already under construction (or consented). • The submissions for the walking/cycling plan have just been received (consultation closed on the 30th November). These will be reviewed, and the cycle action plan will be updated as necessary. Recommendations from the action plan will inform ADC's next long-term plan. • Kiwirail were previously opposed to any bridge options which went over the railway bridge, or between the two bridges. • A key capacity constraint, and a key reason for unreliable travel times in the southbound direction, relates to the merge before the bridge at the SH1 / South Street signals. A solution here would provide good short-term benefits. • K-mart (off South Street) is currently under construction, as is some development at Lake Hood. • The Ashburton Business Park is growing at a faster than expected rate. Much of the demand for a second bridge would relate to trips between Tinwald/Lake Hood and the business park. Future connectivity to this employment hub is important – and was a key part of the rationale for the NOR preferred option of Chalmers Avenue. • Recent developments have actually seen cycle parking being removed and more car parks put in. • Ansco is a large local employer. They may have available information around where staff live, and how they travel to work. • The business case will need to demonstrate that options which seek to 'get the most out of existing assets' have been fully explored. Options which align with GPS priorities, and focus on freight movement and active modes will also be important to Waka Kotahi. • The preferred option might rather be a preferred, and staged, programme of interventions.	• Crissie to follow up with Ansco around travel demands/planning

Item:	Action
Potential additional options • 'Timaru style' on-demand community bus • William Street bridge would be a potential alternative, which would help alleviate some of the K-Mart demand. • Planning framework – e.g. maximum parking standards • 'Fix the South Street' intersection – explore options	• Crissie to direct Stantec towards previous optioneering for South Street • Stantec to review travel time data to better understand the South Street issues • Stantec to obtain SCATS data for the South Street intersection
Next steps • Explore potential 'South Street signals' options • Update the long-list • Assessment of the long-list • Long-List to short-List memo for ADC review	

Meeting Notes

Investment Logic Mapping Workshop

Ashburton North-South Connectivity Business Case

Date/Time:	05 August 2020, 1300 - 1515
Place:	Ashburton District Council (ADC)
Next Meeting:	TBC
Attendees:	**Facilitation / Presenting:** Matt Soper, Chris Rossiter (Stantec) **Participants:** Cr Stuart Wilson & Cr Diane Rawlinson Crissie Drummond, Brian Fauth, Ian Hyde, Neil McCann (ADC) Peter Livingstone (Tinwald School) Jim Crouchley (NZ Road Transport Association) John Skevington (AA) Jason Adamson (Mountain Bike Ashburton) Rob Hooper (Tinwald Cycle Club/NZ Police) Heather Keele (St Johns Ambulance) **Observers:** Andrew Washington, John Keenan (Waka Kotahi) Bryan Peters (Stantec)
Apologies:	-
Distribution:	As above

Item:

Project Overview

- Neil McCann (NM) gave an overview of the project and the desired outcomes from the day.
- The role of people attending the workshop were noted:
    - Matt Soper (MS) as facilitator.
    - NM as project sponsor.
    - Other Stantec attendees' as observers.
    - Everyone else has direct knowledge of problems and issues and are contributors.
- MS noted that the project name was changed to the 'Ashburton North-South Connectivity Project' to better reflect the desired outcomes of the business case.
- MS provided an overview of the business case process and project history.

Outcome Statement

- A draft outcome statement was presented to attendees, which read "Improved multi-modal access to community facilities across Ashburton District".
- Feedback was that the statement should capture "safety" and "social/economic opportunities".
- The revised outcome statement is:
    - Delivering safe access to key social & economic opportunities across Ashburton District.

Reviewing the evidence base

For context, Chris Rossiter (CR) provided an overview of the evidence gathered to date. The purpose was to help inform the "issues" discussion that was to follow.

Information provided by stakeholders which will help with the development of the strategic case:

- There are overlapping school zones in Ashburton.
- TomTom data could be used to understand the proportion of regional trips passing through Ashburton.
- Weekend and holiday traffic can also be problematic.

Item:

- The Ministry of Education would have information relating to where school children live and which school they go to (noting this information may not be available). The MoE may also have information around early childhood centres in Tinwald and Ashburton.
- Rail freight cannot be easily used to transport agricultural produce (a growing and important regional industry south of the river)
- ACC data may be available to better understand the potential level of unreported accidents which involved pedestrians and cyclists.
- Census data could be used to understand where people are going to and from for work trips.
- Pearsons Coachlines could be contacted to better understand issues they have turning onto SH1.
- Bevan @ Fire and Emergency can be contacted to better understand some issues around response times.

Identifying themes

The following key themes were identified from a review of previous work and the Business Case Point of Entry:

- Congestion
- Social Connectivity
- Safety
- Travel Choice

Following a group discussion, '*economic impact*' was a sub-theme that emerged.

Once the problems had been unpacked, stakeholders collectively agreed that congestion was a consequence of issues relating to the other themes (rather than an issue in its own right).

The final themes were therefore:

- Social Connectivity
- Economy
- Safety
- Travel Choice

Collating the issues

An interactive whiteboard session was undertaken to establish key issues. For ease they have been grouped into themes (noting that some issues would fit across multiple themes):

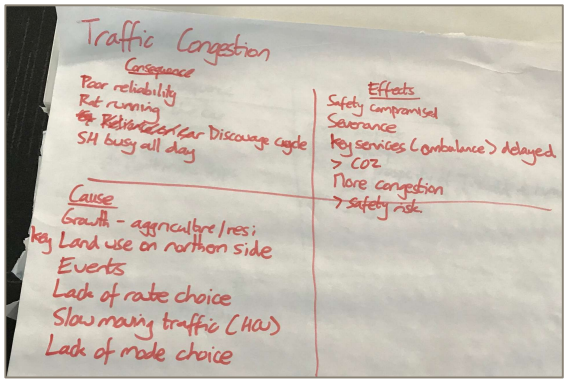
- Safety:
    - High volume of traffic on SH1 during peak periods
    - High volume of heavy vehicles (trucks, tractors, and agricultural equipment)
    - High inter-regional traffic
    - High weekend and holiday peak demands
    - Slow moving trucks (and pilot vehicles)
    - Oversize loads travelling in peak times
    - Proximity of train tracks / crossing barriers
    - Northern approach lane geometry
- Social Connectivity
    - Land use - education and workplace activities not local to either Tinwald / Ashburton
    - Key amenities on the northern side of Ashburton River
    - Early childhood centres near places of work, rather than residence
- Economy
    - Agricultural and residential development growth
    - Land use development south of the river (Lake Hood, West Tinwald)
    - Growing number of retirees and retirement villages and active retirees
    - Lack of route choice
- Travel Choice
    - Active mode provisions are limited or of poor quality on local roads
    - Narrow width of the SH1 bridge
    - Lack of physical separation between traffic and cyclists

Item:
○ Poor surface on bridge shared paths ○ Narrow footpath on existing SH1 bridge ○ No public bus or on-demand transport (e.g. Uber) ○ Poor lighting on SH1

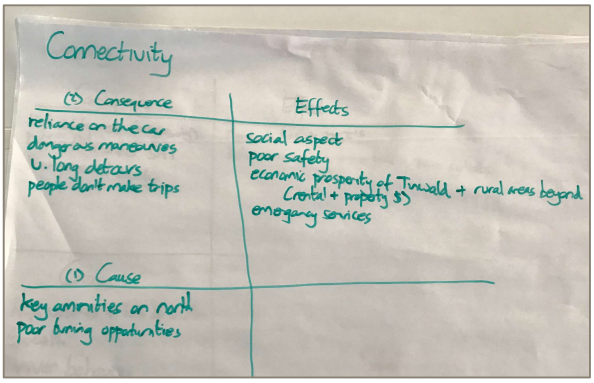
Unpacking the Problems

Each of the issues were 'unpacked' to identify root causes. These root causes can then help understand potential opportunities to solve the problems.

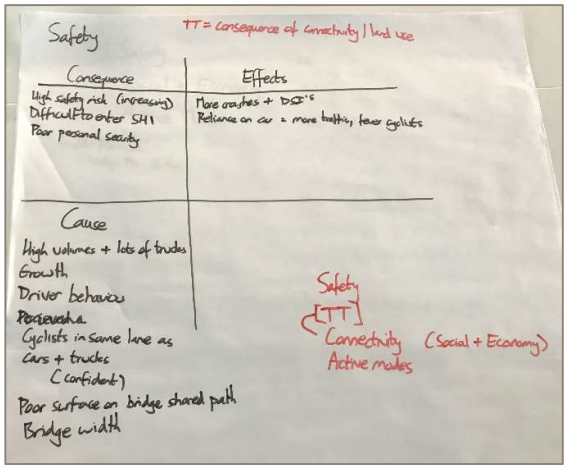
Theme 1: Congestion



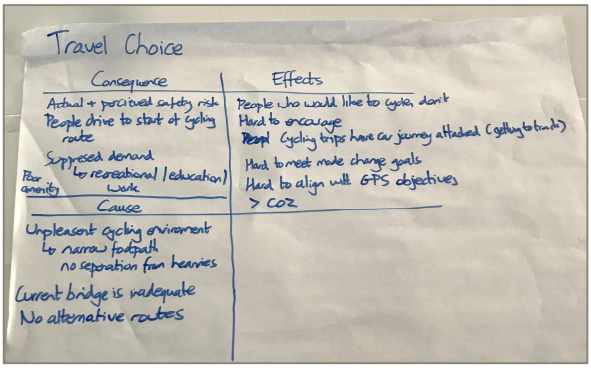
Theme 2: Connectivity



Theme 3: Safety



Theme 4: Travel Choice



Following the workshop, the causes, effects, and consequences of each problem theme were reorganised into the following table, colour coded by theme (black = safety, purple = economy, blue = travel choice; green = social connectivity).

Cause	Effect	Consequence
• High volume of traffic on SH1 during peak periods • High volume of heavy vehicles (trucks, tractors, and agricultural equipment) • High inter-regional traffic • High weekend and holiday peak demands • Slow moving trucks (and pilot vehicles)	• SH1 is busy all day • Slow travel speeds • Poor travel time / reliability • Difficulty entering the SH for heavy vehicles • Difficult to merge (crash risk) • Difficult to cross SH1 • Poor driver behaviour (e.g. merging like a zip)	• **Economic** (productivity) impact • **Economic** (land value) impact for East Tinwald (rental and property $) • Emergency services are delayed • Increased likeliness of crashes (particularly rear end) • Increased safety risk (actual and perceived)

Item:		
• Oversize loads travelling in peak times • Proximity of train tracks / crossing barriers • Northern approach lane geometry • Agricultural and residential development growth • Land use development south of the river (Lake Hood, West Tinwald) • Growing number of retirees and retirement villages and active retirees • Lack of route choice • Land use - education and workplace activities not local to either Tinwald / Ashburton • Key amenities on the northern side of the Ashburton river • Early childhood centre near places of work, rather than residence • Active mode provisions are limited or of poor quality on local roads • Narrow width of the SH1 bridge • Lack of physical separation between traffic and cyclists • Poor surface on bridge shared path • Narrow footpath on existing SH1 bridge • No public bus or on-demand transport (e.g. Uber) • Poor lighting on SH1	• Increased tendency for drivers to make dangerous manoeuvres • Increasing traffic volumes • Limited capacity on the State Highway • More congestion • Long detour in event of bridge closure – impact to emergency services • Unpleasant existing river crossing for pedestrian/cyclists • Cycling is unappealing • On-road cyclists tend only to be very confident • Cyclists share the road with traffic (and large trucks) • Less confident people drive to the start of popular recreational tracks (so a car journey becomes part of a cycling trip) • Personal security when crossing the bridge is compromised • Reliance on the car for most journeys • People don't make trips that would otherwise want to.	• Hard to align with GPS objectives • Difficult to encourage the younger generation to use active modes • Suppressed cycling demand • Increased motor vehicle travel • Increased emissions • Social disconnect • Community severance (both north-south, and east-west)

This process allowed for draft problem statements to be more easily created. These are presented within the draft ILM in **Attachment A.**

Problem Weightings

Stakeholder agree that based on knowledge of existing issues, that *social/economy* was the highest priority problem to address. The agreed weightings in the workshop were:

- Social and economy – 50%
- Travel choice – 30%
- Safety – 20%

Following the workshop, draft problem statements were formed based around the themes and identified causes, consequences, and effects. The process of developing the problem statements established that it was appropriate to separate social and economy into separate themes – as the economic benefits are quite distinct to the social ones.

To this end, the following weightings were identified (with themes adjusted slightly to align with government/business case terminology):

- Inclusive access – 40%
- Economic prosperity – 10%

Item:
• Travel choice – 30% • Safety – 20%
Next Steps • Finalise Investment Logic Map • Update Evidence Base • Draft Part A for ADC / Waka Kotahi Review • Progress to Options Assessment (Part B of the DBC) if there is agreement that there is a strong case for change

Attachments

A) Draft Investment Logic Map
B) ILM Presentation

Meeting Notes

ATC Emerging Programme Workshop

Ashburton North-South Connectivity Business Case

Date/Time:	15 April 2021, 1000 - 1200
Place:	Ashburton District Council (ADC)
Next Meeting:	TBC
Attendees:	**Facilitation / Presenting:** Matt Soper, Chris Rossiter (Stantec) **Participants:** Cr Stuart Wilson & Cr Diane Rawlinson Crissie Drummond, Brian Fauth, Ian Hyde, Neil McCann (ADC) Jim Crouchley (NZ Road Transport Association) John Skevington (AA) Heather Keele (St Johns Ambulance)
Apologies:	Peter Livingstone (Tinwald School), Andrew Washington (Waka Kotahi), Jason Adamson (Mountain Bike Ashburton), Rob Hooper (Tinwald Cycle Club/NZ Police)
Distribution:	As above

Item:	Actions:
Workshop Purpose The purpose of the workshop was to review the long list to short list process, and to establish: • Were any potential options missing from the long list? • Was the assessment of the long list appropriate? Were there any other options that should have been brought forward to the short list for more detailed evaluation? • Review the Multi-Criteria Assessment (MCA) of the short-listed options, including a review of criteria and weightings. • Feedback on the emerging preferred programme. • Is there anything new that the project team should be aware of?	-
Presentation Stantec provided a presentation (included as **Attachment A**), which provided a recap of the strategic case, the option development process and long and short-list assessments.	
Long List review The long list of options was presented to the group. These options were identified based on previous studies, feedback from Workshop No.1 and input from ADC. <u>Bypass options</u> • Attendees agreed with the assessment – i.e. that the bypass options should be excluded from further assessment due to high-cost implications (local road upgrades) and the poor alignment with the Investment Objectives. It was agreed that the options would do little to address social connectivity between Tinwald and Ashburton. The bypass options would also come with significantly high cost to upgrading local road connections. • Attendees agreed that bypass options should be discounted. <u>All vehicle bridge options</u> • All previous options that were considered in previous studies were brought into the long list, and then independently evaluated. Whilst no new alignments were identified, consideration was given to whether new bridges could be for 'active modes only'. • A new West Street option was considered.	• ADC to provide the project team with the recent State Highway traffic count data

Item:	Actions:

• ADC commented that there is existing community group that have expressed a strong view that duplication of the SH1 bridge would be the most desirable option.
• All the 'new bridge' options would likely require significant investment in the local road network to support a new route. Roading upgrades along SH1 may be required even if a new bridge is not constructed (i.e. to support growth and improve safety).
• The following options were discounted at the long-list stage:
  o Option 3 = discounted as being a poor urban connection. Similar rationale was provided for Options 5 and 6.
  o Options 10/11 = no longer practical with the new retirement village in the path of the proposed alignment.
  o Option 18 = not physically possible with bridge structure. Would need to totally replace the bridge.
  o Option 22 = discounted at the NoR option. No change to the rationale presented in that assessment.
<u>Active mode only bridge options</u>
• Only the 'Chalmer Street active modes only' bridge was discounted. This is because, if a bridge were to be constructed at this location, it should be for all modes.	

General comments during the long-list discussion • Consensus amongst the group was that heavy vehicles travelling through Ashburton and Tinwald should remain on the state highway. ADC noted that there is a current community concern around potentially more trucks going through local roads (if a Chalmers Street bridge is preferred); but mitigation (such as HMPV limitations) could be available to address such concern. • There was consensus amongst the group that the long list captured all reasonable possible options, covering both physical infrastructure and demand management alternatives. • Was agreed that the identified short-list was appropriate.	• ADC to provide update, once received, regarding any changes to the emerging preferred programme for the Tinwald Improvements SSBC.

Short list
• Stantec presented the MCA for the short-list, and rationale behind the choice of weightings and criteria. Attendees agreed that the criteria, which align with the requirements of Waka Kotahi's MCA guidelines, were appropriate and cover the key areas of risk. Sensitivity tests were also undertaken to establish the relative ranking of options if response to changes to weightings.
• Stantec noted that the MCA was only one tool for establishing a preferred programme. It is however a very useful tool for helping to narrow down the field of alternatives if some options present high technical challenges/cost or have a weak alignment against the Investment Objectives.
• The group identified a potential inconsistency between Chalmers Street option and where the Tinwald signals are going. Truck drivers will keep to the shortest route.
  o Desire from the group to understand the local vs through traffic on SH1 on weekends compared to weekdays. Similarly, there was a desire to have a breakdown of local vs through traffic for light and heavy vehicles.
  o Noted that Tally's Group Ashburton has expressed desire for a Chalmers Bridge to use it for trucks. However, it is unclear whether they specifically want a Chalmers Street Bridge, or more generally, a second vehicle bridge.
• An emerging preferred programme was presented which included:
	• Stantec to update the MCA assessment based on any feedback received from the workshop. This includes assessment of the 'clip-ons' option, where since the draft MCA an indicative cost estimate for that option has been undertaken (which will change the scoring).

Item:	Actions:
o Upgrade to the South Street / SH1 intersection to improve the departure lanes and merge operation(short-term) o New active mode bridge (short to medium term). The Tarbottons option at this stage is seen as the option that would present the best benefits, but further assessment of this option, and the 'SH1 clip ons' option, is required. Recommended that both options are brought forward to Stage Three of the project. o New all vehicles bridge (medium to long term). Recommended to progress the 'Duplication of SH1' and 'Chalmers Street' options for further investigation in Stage Three. • The 'Duplication of SH1' bridge option may require an extension of the four lanes provided by the bridge duplication (two northbound and two southbound lanes) through to Mitre10 to avoid simply moving the bottleneck to another location such as the railway crossing.	
Traffic modelling • Stantec presented an overview of the modelling that informed the NoR and highlighted that some key factors, which would influence demands across a future Chalmers Street bridge have since changed. For example: o The model has several roads coded with 60kph speed limits. The Chalmers Street bridge was coded with a 70kph speed. It would be more appropriate for Tinwald/Ashburton wide 50kph speeds to be coded (in line with existing conditions). o The Chalmer Street bridge option coded in the model, includes an additional connection (not identified in the NoR) which provided a direct connection to the state highway. As above, this would make a Chalmers Street option more desirable. o The model does not include the South Street signals or the signals proposed at Walnut Avenue and the Lagmhor / Agnes intersection o The model is now relatively out of date and informed by outdated census and land use data. Census 2018 is now available. o There are significant difference between the anticipated 2026 land-use in the model compared with what has occurred. ADC noted that they are currently undertaking a housing and building assessment, which would provide vital information for any new model development. • Stakeholders agreed that there was a clear need to update the model to provide robust evidence around the benefits of the 'SH1 duplication' and 'Chalmers Street' all vehicle bridge options.	• ADC to provide Stantec with future year land use projections once prepared (est. 1-2 months away). • Stantec to discuss potential future modelling approach with ADC.
Next Steps • Stantec to contact those who were unable to attend the meeting and provide an overview of the workshop and seek any feedback on the emerging preferred programme. • ADC to work with Stantec to establish a suitable way forward regarding a traffic model update. • Drafting of the 'Part B' of the business case and completion of Stage Two of the project. To be provided to ADC for review prior to being submitted to Waka Kotahi.	

Attachments
A) Presentation

Meeting Notes

Emerging Programme Review

Ashburton North-South Connectivity Business Case

Date/Time:	14 June 2021, 1030 - 1130
Place:	Ashburton District Council (ADC) / Zoom
Next Meeting:	Two weeks' time (recurring appointment / check-in)
Attendees:	Hamish Riach (ADC, CEO) Neil McCann (ADC, Group Manager Infrastructure Services) Brian Fauth (ADC, Roading Manager) Andrew Washington (Waka Kotahi, Principal Advisor Partnership Investments) Richard Osborne (Waka Kotahi, Regional Manager - System Design) Chad Barker (Waka Kotahi, Regional Principal Transport Planner) Ian Duncan (Waka Kotahi, South Island Regional Relationship Manager) Matt Soper (Transport Planner, Stantec) Chris Rossiter (Transportation Engineer, Stantec)
Apologies:	-
Distribution:	As above

Item:

Overview

The purpose of the meeting was to clarify the status of the business case, gain feedback on the emerging preferred programme and work through the next steps. The business case as it stands is a working draft, and essentially represents Parts A and B of an indicative business case.

Following the delivery of the draft business case, a major flood event occurred which resulted in the temporary closure of the SH1 bridge. The bridge is still subject to temporary speed restrictions. This event has brought into focus the resilience issue.

Presentation

Stantec provided a presentation (included as **Attachment A**), aimed at providing attendees who have not been involved with the project an overview of the process taken to get to an emerging option.

The draft emerging preferred programme includes:

- Short term – increase the length of the merge heading onto the bridge at the South Street merge.
- Short-to-medium term – new walking/cycling bridge.
- Medium term – new second vehicle bridge. Two options have been short-listed – 1) Chalmers Avenue (as per the NoR); 2) duplication of the SH1 bridge.

<u>Feedback</u>

- Hamish expressed the view that the business case as it stands does not provide sufficient assurance around the long-term solution. The business case will need to be updated to provide a clear recommendation around where and when a second vehicle bridge is required.
    - The draft business case as it stands highlights a key evidence gap – around traffic modelling – that will need to be addressed to finalise the preferred programme.
- Hamish commented that unless the business case has a clear recommendation in terms of location and timing, for a future second vehicle bridge, significant push-back from the community and local politicians would be expected. A separate walking/cycling bridge would be beneficial but should supplement another new vehicle bridge. There should be a clear message that a second vehicle bridge is in the future plans with or without a separate walking/cycling bridge.
- In light of recent events, the evidence base can now be updated to better demonstrate the scale of the impact of any major event (e.g. flood or earthquake) that results in closure. The business case as it stands provides a theoretical monetised impact of closure for one day – however, we will now be able to reference the actual impacts. It is likely that the actual impacts of the recent event would have far exceeded the previously calculated theoretical impact.
    - WK suggested that the wider 'South Island connectivity' consequences are brought into the picture.

Item:

- WK commented that the business case as it stands does provide ADC with some assurance around:
  a) the scale of the problems;
  b) the need to address the problem; and,
  c) that a long-term solution is the construction of a second bridge.

Traffic modelling

All attendees agreed that the development of a traffic model is an urgent task. It will be essential for answering:

1) Which bridge alignment is most suitable?
2) When is the bridge required? What is the trigger point? (i.e. amount of growth in local population or traffic on the existing SH1 bridge)
3) What other upgrades would be required to support the second vehicle bridge?

Stantec will bring together a draft offer of service (OOS) for this work for ADC review.

The timeframe for delivering the updated business case (Part A/B of the IBC) will be extended by 3 months to allow time for the modeling to be completed.

Next steps

1. Stantec to provide an OOS for the traffic modelling task.
2. Stantec to setup fortnightly 'check-in' sessions, to include all attendees of this meeting.
3. Stantec to progress with the traffic modelling. The key first step will be the commissioning of traffic surveys. These surveys should be undertaken once the temporary speed restrictions on SH1 are lifted, and outside of school holiday periods.

Attachments
A) Presentation

Ashburton North-South Connectivity Business Case

Emerging Preferred Programme

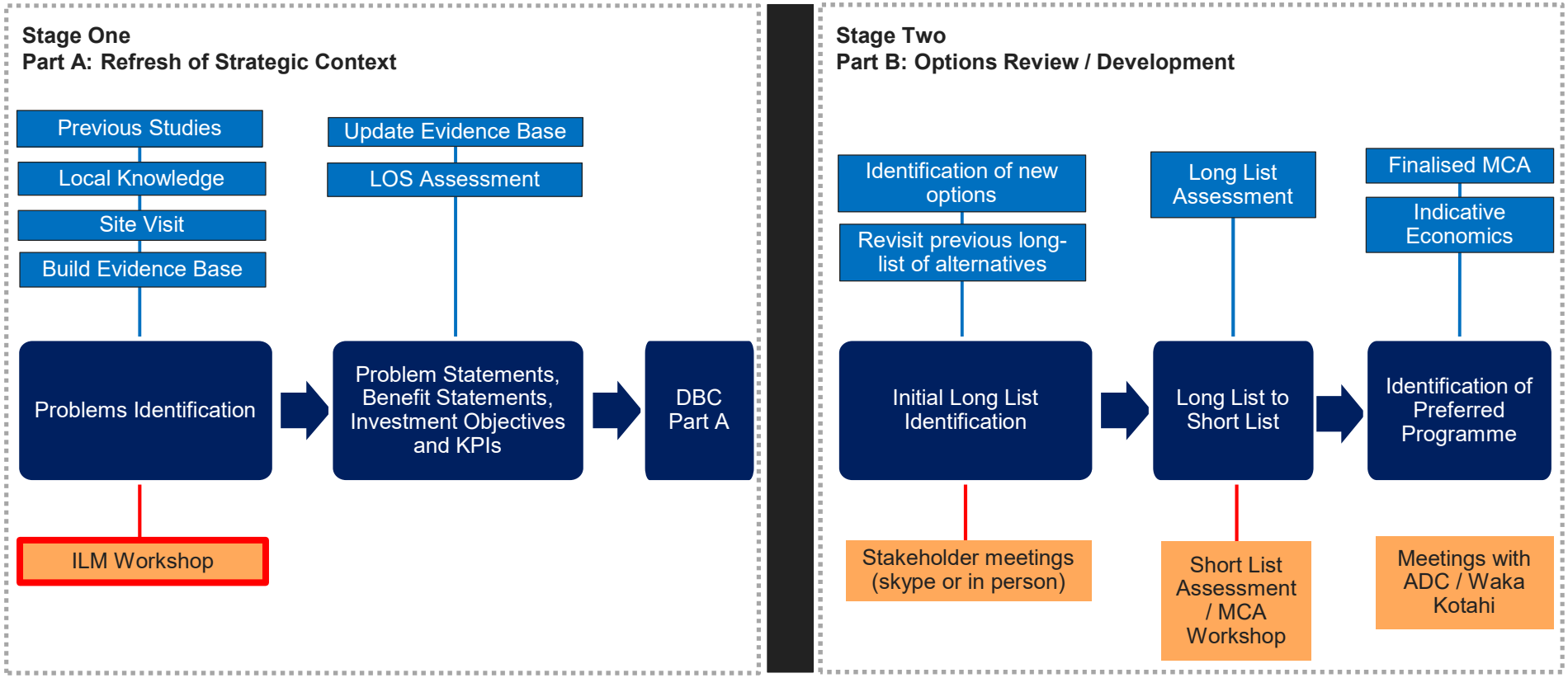
14th June 2021

Stantec

Introductions

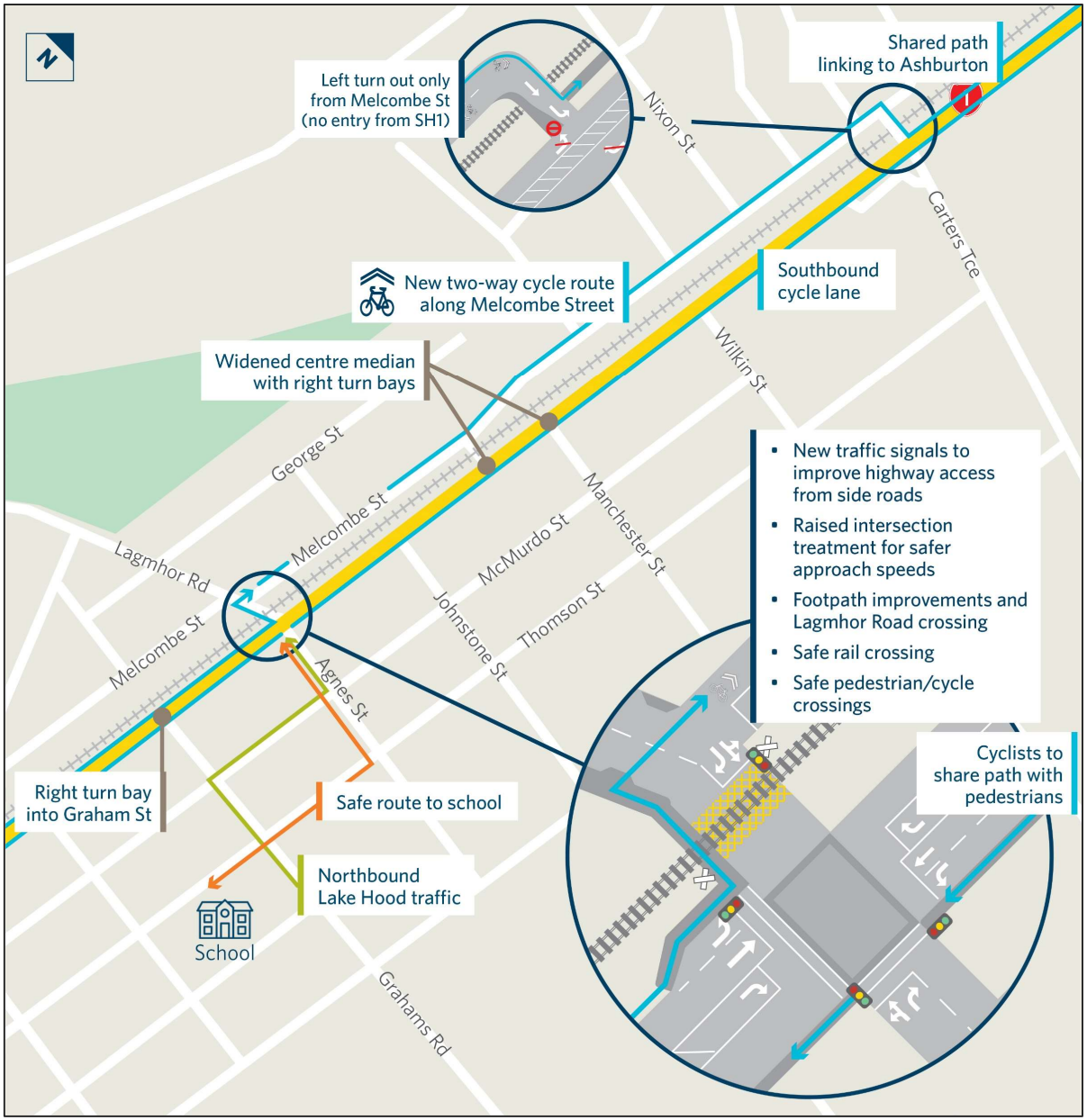
Context

Business Case Process



Project area

Tinwald Corridor Improvements



Context

Outcome statement

Improved multi-modal access to community facilities across Ashburton District

Context

Problem statements

Social Connectivity (40%)

An absence of route choice contributes to more traffic on SH1. This discourages people from making journeys they otherwise would, creating social disconnect and lack of a ‘one community’ feeling.

Note: resilience was captured under this problem statement.

Travel Choice (30%)

Limited (or poor quality) facilities for sustainable modes makes it difficult to achieve long-term environmental and liveability objectives.

Safety (20%)

High traffic volumes make it difficult for people to travel along, across, or onto SH1. This increases the likelihood of injury crashes and delays emergency services.

Economic Prosperity (10%)

Increasing traffic and constrained capacity on SH1 results in worsening travel time reliability between Tinwald and Ashburton. This impacts freight connections and economic prosperity.

Options

Long List

Walking/cycling only

All modes

Other options:

- Bypass (x3 alternatives)
- South Street intersection upgrade (extend merges)
- Bus services
- Clip ons

Short List

MCA results

- Infrastructure improvements had highest scores
  - Improve merge at South Street
  - Provide clip-ons
- Improving active mode network with a new bridge forms a second cluster of scores
  - Preferred option is dependent upon the preferred vehicle bridge option
- Chalmers Street and Duplicate Bridge Options were the highest scoring vehicle bridge options
  - Duplicating the SH1 Bridge is likely to be less expensive as no new roads or land purchase is required
  - Proximity to SH1 bridge will increase the technical difficulty of the duplicate bridge option

Emerging Programme

Emerging programme

Short term

Extension to the merge areas at the SH1 / South Street signals

Short to medium term

- A new walking/cycling bridge (or improved connection), with an upstream location that aligns with Tarbottons Road currently the preferred option.
- On demand bus service (pending review of the success of the Timaru service)

Medium to long term (timeframe TBC)

Construction of a new vehicle bridge – with duplication of the SH1 bridge and Chalmers Street bridge the options to be considered. To include walking/cycling connection.

The development of a traffic model will be essential for answering:

1) Which alignment is most suitable?
2) When to construct? What is the trigger point? (i.e. amount of growth in local population or traffic on the existing SH1 bridge)
3) What other upgrades would be required to support the second vehicle bridge?

Stantec

Meeting Notes

Value engineering and 'Part C' discussions

Ashburton North-South Connectivity Business Case

Date/Time:	2 June 2022
Place:	Online
Next Meeting:	TBC
Attendees:	ADC, Waka Kotahi and Stantec
Distribution:	As above

Item:	Action
Purpose of meeting The purpose of this meeting was to: • Provide an update regarding the project and design • Discuss opportunities to reduce the project expected cost, without substantially reducing the benefits that investment would seek to deliver – 'value engineering' • Discussion around a potential staged approach to delivery of the project, and the need for incremental analysis • Discuss the financial case – and potential funding avenues • Discuss the commercial case and management case	-

Value engineering – bridge
• Opportunity to reduce the bridge length from the current prelim length of 420m.
  o Existing Kiwirail and Waka Kotahi bridges are 340m long
  o Flood water levels of Tinwald side are generally 1m less than the Ashburton side because of the restriction created by the dense scrub and trees, effectively providing a barrier between the Ashburton River and the secondary channel along the Tinwald plateau.
  o A reduction in bridge length would save costs associated with piers and structure, but additional cost associated with increasing the length of the approach embankments and carriageway. Approximately $1.6m saving per span – therefore reducing the length by 2 spans (60m) to 360m long would save approx. $3.2m saving (excluding the additional cost of the longer approach embankments).
• ADC question re. suitability of shortening the bridge structure.
  o Stantec to undertake a site visit next week and rerun the hydraulic model and test for various flood scenarios (inc. May 2021 flood, a 250-year event) to confirm that the bridge length can be reduced from the initial plans.
• Stantec are holding discussions with a specialist contractor (Concrete Structures), who built the similar Ashley Cones bridge, Rangiora, to understand current market contract rates. Stantec will still consider market variability and feedback from Concrete Structures when updating the unit rates for the bridge construction.
• Stantec recommendation not to reduce the bridge cross-section, at this stage, as the bridge has an expected lifespan of 100 years plus, and the project is looking to ensure future needs are met (i.e. not repeat the issues present with the existing narrow SH1 bridge). Increasing the bridge width later on is a difficult and expensive exercise
  o ADC agreed to leave the bridge cross-section as it is.
• Risk of wholesale tree removal on Butterick Land as this could compromise (to some extent) Tinwald flood protection (ADC follow up) due to providing an improved connection between the Ashburton River and Tinwald. Stantec commented that if they are given permission to log the land, then conditions should be set to encourage revegetation to help with flood protection.
	• Stantec to confirm viability of shortening the bridge structure post site visit and modelling
	• ADC to confirm the potential plans for the Butterick Property and highlight risk of removing trees (i.e. flood protection)

Value engineering – road **Cross-section**	• Stantec to add addendum to the RSA re.

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• Stantec commented that a single-sided shared path would save about $300k in project cost; however, would be a reduction in level of service for pedestrians and cyclists. Furthermore, cyclists may end up simply riding on the footpath.
  o ADC stated their view was that shared paths on both sides should be retained.
• Question around whether gravel path rather than concrete shared path could be provided (similar to that along Grahams Road)
  o ADC stated that a full shared path needs to be delivered, in line with the wider cycling strategy and again to provide higher benefit/amenity.
  o A gravel path in an urban environment needs to be remote from any areas where tracking of unsealed materials may cause an issue.
• Stantec recommended that the proposed flush median should be retained as it will enable turning movements, better presents a slower speed environment by allowing slightly narrower than standard lane widths, and matches the future expected Collector Road hierarchy.
• ADC agreed that the flush median should be retained
  o Overall, no plans to change the road (or bridge) cross-section from the one that was developed in the previous workshop
Roundabouts
• Stantec provided the challenge around whether roundabouts are required at all intersections – in particular at Johnstone Street, Wilkin Street and Carters Terrace. Johnstone Street and Carters Terrace in particular have low turning volumes, and the safety benefit for roundabouts at these intersections are expected to be relatively low.
• Each additional roundabout would cost approximately $700k more than a give-way /stop priority controlled intersection
  o ADC agreed that there is clear rationale for not introducing roundabouts at Carters Terrace and Johnstone Street given the additional cost, minimal safety benefits (due to low turning volumes) and implications to travel time along the corridor. Priority controlled intersection present higher risks, but these can largely be mitigated through design and signage.
  o If required in the future, roundabouts at these intersections could be introduced, with the design footprint confirmed by the current design effort.
• The roundabouts have been designed with generally the minimum footprint (to deliver cost efficiency), whilst ensuring standard large vehicles (and limited over dimension vehicles) can safely and easily manoeuvre around the roundabouts. The designs will be tested with the wider stakeholder group.
Utilities and wastewater provisions
• There is roughly a $4m cost associated with utilities, including streetlights. There is little opportunity to reduce this cost.
• $4m is associated with water supply and wastewater provisions.
  o Waka Kotahi stated that the extension of the 3 waters network would not be funded by WK, and effectively would be subject to a 0% FAR. Modifications of the existing network due to the new road however would attract the agreed FAR.
  o Council would need to fund this through a different means.
	removing the roundabout – and will brief Urban Connection and ask for commentary around option to adopt 3, rather than 5, roundabouts

Incremental assessment • Stantec raised the option of a staged roll-out of the project that would seek to optimise value for money. This option would be to initially construct the bridge and road up to Wilkin Street then at a later (development driven date) construct the section between Wilkin Street and Grahams Road. • Waka Kotahi stated that given the funding deficit of the project and the potentially high cost, that the business case would very likely need to go to the Ministry of Transport (MoT) and then the Minister for addition funding. MoT would likely require an incremental assessment of this nature to be undertaken in order to understand 'the minimum viable product'. • The DBC will need to go to MoT and Minister by November 2022.	• Stantec to undertake incremental economic assessment for a staged solution. This includes additional traffic modelling.

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• Waka Kotahi stated that the minimum viable product would be to connect to Carters Terrace. As such, the following options should be presented, and incremental economics undertaken:
  o South Street (Ashburton) to Carters Terrace (Tinwald)
  ▪ This would not include any upgrade of Carters Terrace, acknowledging that this would see some safety compromise.
  o South Street (Ashburton) to Wilkin Street (Tinwald)
  o South Street (Ashburton) to Grahams Road (Tinwald)
• Waka Kotahi stated that the MoT are focused on transport outcomes, and funding would be directed in that manner (i.e. not to support future housing). Potential Kainga Ora funding avenue to help facilitate the housing development (Carters/Wilkin to Grahams).
• The project might not necessarily be staged as such (i.e. construction at different times) but rather '**funded by different parties**'.
• Waka Kotahi recommend that ADC should start discussions as soon as possible with the Ministry of Transport (Richard Manning).
• The economic case and appraisal summary tables will need to present the benefits (inc. non quantifiable) for construction of the road between Carters Terrace and Grahams Road. It would likely be a Ministerial decision around whether additional funding would be provided for the Carters Terrace to Grahams Road section.
	• ADC to begin discussions with the MoT.
	• Stantec to provide cost estimates for each potential stage.

Financial case
• The current position of WK is that a 51% FAR contribution would be made. This contribution could be increased if the business case can demonstrate additional direct benefits for the state highway – such as:
  o Reduced crash risk for the state highway – what is the cost benefit for that ($economics)
  o Extending the asset life of the existing bridge
  o Reduction or change in maintenance regimes.
  o Resilience benefit
  ▪ This has been captured through the Merit analysis that has already been undertaken. A pro-rata approach would be needed, as the analysis is for a 7-day closure, when the May 2021 event generated a 3-day restriction for goods movement.
• Potential funding avenue for part of the project through the Infrastructure Acceleration Fund (IAF).
• ADC have not been able to source any documentation regarding previous agreements around a 20:80 split of funding between ADC and Waka Kotahi respectively.
• Waka Kotahi stated that obtaining a higher 'bespoke' FAR is likely to be challenging for ADC, as deprivation is not an issue for Ashburton.
• There may be an opportunity for the shared path cost to be funded through the climate change emergency fund.
• Waka Kotahi will contribute to property that has already been purchased at the final agreed FAR rate. They will contribute based on the cost that was paid when the property was purchased (e.g. 5 years ago) and what appeared on the balance sheet (not adjusted for inflation).
• Waka Kotahi will not commit to funding until all other funding sources have been confirmed.
• Council will need to confirm how much they are committing to the project prior to the DBC being presented to Waka Kotahi.
  ▪ Council will make this decision at the August board meeting following completion of Version 1 of the DBC.
	• Stantec to report and quantity the additional benefits for the state highway.
	• Stantec to explore opportunity for funding through the IAF or climate emergency fund.
	• Council to confirm the amount previously paid for property.

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▪ Version 2 of the DBC will include this committed funding figure, and then be presented to Waka Kotahi. Procurement opportunity • Potentially there is opportunity to reduce cost via the procurement approach – for example, if the bridge contractor was a sub-contractor to the main roading contract, then an additional 10-15% might be being applied. Potentially some saving can be achieved by managing two separate contracts – but this is partly dependent on the scope of the final approved (and funded) project and any staged approach.	
Management case • How do iwi want to be involved in future phases? o ADC will approach iwi and ask how they would like to be involved. Ongoing engagement suggests this could be providing design input into landscaping/planting and providing naming rights. o ADC to explore opportunities for some physical works (during pre-implementation) for local maori companies to be involve. • ADC unlikely to have resources to manage the delivery of the pre-implementation and construction. Likely a consultant would be used to assist on the client side. o Waka Kotahi would be supportive of assisting on the client side – future opportunity for partnership to deliver between WK/ADC. • During pre-implementation and detailed design, a contractor should be brought in to help aid the design (but without guarantees regarding being awarded the construction contract) • Property acquisition strategy o How do council intend to go about acquiring those remaining properties? ▪ Report has been prepared to council to approach the remaining two properties to purchase remaining land. Process is ongoing. ▪ ADC believe that funding is available to purchase the remaining land to fully deliver the project. o ADC confirmed that a property strategy is not required. • Are there any access right/easements we need to be aware of? o Some property accesses will need minor changes o Access for ECan to the river • What type of procurement models should be considered? o Any model should simply align with ADC's and WK procurement strategies. o Potentially the road and bridge would be split apart (unless the Do Minimum is adopted) • What is the cost risk mitigation strategy? o A robust P95 will need to be developed during both the DBC and pre-implementation phases. • Delivery of other local road improvements that were identified within the NoR (further along Chalmers Avenue) o LCLR improvements to be included as part of the councils' 24-27 programme o Any wider network changes required as part of the staged approach.	• Stantec to assist ADC with conversations (Colin McKay at WK) re. resources availability at the time to help out ADC (as partners) • ADC to follow up regarding the process for obtaining the final properties. • Assessment of different procurement options to be summarised summarise in the DBC – simple summary. • Stantec to update the consenting strategy to capture any implications of a staged approach to delivery being adopted.
Commercial case • Procurement strategy – recommendation that procurement of design and build should allow for alternative designs (e.g. beam configuration), within certain design parameters. • Additional community consultation will only take place if the project is funded.	
Next steps • Design challenge and engagement with immediately effected parties. Scheduled for the 20th June • RSA and peer reviews/parallel cost estimate	

Item:	Action
• Draft the DBC	