Greater Christchurch Public Transport Joint Committee

General Information

Agenda item number	8.	**Date**	17 May 2017
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DASH Rail

Purpose

1. Members will recall that, at the March 2017 Joint Committee meeting, Tane Apanui introduced DASH Rail's commuter rail concept using the existing Christchurch rail corridor and available rolling stock from Auckland.

2. Following the deputation from Mr Apanui, the committee asked that staff meet with him to compare the findings of his proposal with the 2014 Aurecon report *Rapid Assessment of the Northern Corridor* [1i]. This report was commissioned as part of a joint response from partners to the Northern Christchurch congestion and access problems being experienced post-earthquake.

Recommendations

That the Greater Christchurch Public Transport Joint Committee:

1. Notes that the limitations in terms of infrastructure and accessibility, and the costs of overcoming these limitations, preclude the immediate introduction of rail on the existing Christchurch corridor

2. Acknowledges that rail may play a role in future public transport for Christchurch

3. Agrees that the public transport discussion currently facing greater Christchurch should focus on meeting customer and potential customer needs to ensure network outcomes are met

4. Agrees that the Future Public Transport Business Case will include consideration of all modal solutions including rail.

Background

3. DASH rail presented a proposal to purchase retired rolling stock from Auckland Transport and utilise it on the existing Christchurch rail network to provide limited peak commuter services from Rolleston to Waipara.

4. A number of previous studies of the feasibility of using commuter rail on the existing network in greater Christchurch have been undertaken by UDS partners as part of work on establishing improvements to public transport services. These studies include:

    - *Christchurch Rolleston and Environs Transportation Study* (Connell Wagner, 2007) which identified future transportation in the southwest and south of Christchurch to 2021. The study addressed the potential for commuter rail services in the study area based on probable patronage.
    - The *Public Transport Futures Study* (Parsons and Brinckerhoff, 2008) indicated that there is no ideal, single rapid transport mode and discussions on public transport systems should focus on the "function". Selecting the most appropriate mode should be based on identifying the function and characteristics of the public transport 'task'.
    - The *Rapid Assessment of the Northern Corridor* (Aurecon, 2014) considered the feasibility and indicative costs of providing a short-term passenger rail service between Christchurch and Rangiora to ease the immediate peak congestion issues on the northern corridor. The report was a high level assessment based on a desktop study of land holdings and basic infrastructure requirements

5. The conclusions from these studies is that rail can be a viable future mode choice option for Christchurch, but rather than identifying a specific type of mode to carry customers the immediate discussion should focus on selecting the most appropriate service types to meet the need of customers and potential customers.

6. Using the rolling stock suggested in the DASH Rail concept is feasible on the Christchurch rail corridor, however a number of issues remain, notably:

    - Limited line infrastructure (single track north of Belfast with signalling limitations, no direct access through Tower Junction to central city, lack of marshalling capacity at the Middleton yards) *Aurecon 2014,* Greater Christchurch Northern Rail Rapid Assessment, *pp 11-12, 13-14, 35-36*

    - Limited accessibility to the lines – platforms and stations would need building or re-instating at a number of key locations *Aurecon 2014,* Greater Christchurch Northern Rail Rapid Assessment, *pp 17-19*, 36

    - Proposed equipment is old and access to spares is limited – 50 year old rolling stock may create reliability issues when breakdowns occur, which would have an impact on customers and the operation of pre-existing freight services on the rail corridor

    - Traffic modelling shows that destinations within Christchurch are varied. Feeder bus services would be required to support travel to key destinations, involving multiple mode-shifts to complete a journey *Aurecon 2014,* Greater Christchurch Northern Rail Rapid Assessment, *pp 12-13, 20, 35-36*

7. Significant investment would be required in new infrastructure to support a commuter rail service on the existing lines.

8. In addition to this, the Greater Christchurch UDSIC has recently voted to support investment for a third south bound lane on the Waimakariri bridge. This will be a HOV (high occupancy vehicle) lane suitable for rapid public transport services. This investment, along with improved public transport services combining frequency and rapid/express services, is seen as a more viable investment in the short to medium term.

9. The long-term future of public transport may include rail. This should be a modern and comfortable service built upon proven demand. The limitations of the DASH Rail proposal and the need for significant investment preclude this from being a feasible current alternative for greater Christchurch.

10. The Joint Committee is currently considering a proposal to complete a *Future Christchurch Public Transport Business Case*. This process will provide the opportunity to fully consider modal development, including if rail options can play their part.

Attachments

- Basic capital expenditure update of 2014 Aurecon report

References:

1. Copy of the 2014 Aurecon "Greater Christchurch Northern Rail Rapid Assessment Report" can be found online at https://static.stuff.co.nz/files/RapidAssessmentReport.pdf

Capital costs (update from Aurecon 2014, Greater Christchurch Northern Rail Rapid Assessment pp 32)

Aspect	Option	Estimated Cost	Comment
Basic Upgrade	Rangiora Station (resurfacing)	$30,150	Cost for infrastructure varies across stations. Investment will be required to improve condition and safety
	Kaiapoi Station (new platform)	$590,000	
	Papanui Station (resurfacing)	$22,725	
	Mona Vale	$720,000	
	Belfast	$270,000	
Land Purchase	Addington - City Connection (reinstatement of deviation)	$7,750,000	
	Land Lease option or purchase Turners Site		Cost will depend on option
	Moorhouse Station (Colombo St overbridge location)	$5,001,000	Station access via Moorhouse Ave
	Mona Vale (Riccarton Station)		No cost assuming sufficient land for station exists
Signals			Cannot be estimated without further information
Operational Costs	Feeder bus services	$637,152 p.a.	Additional feeder buses (based on 6 services)
	Labour costs	$585,000 p.a.	Based on 3 drivers and 3 guards @ $75 for five hours per day, 5 days a week, 52 weeks.

Note: does not include costs of purchasing rail rolling stock, spares or operating costs should they be required.