27. 10. 2011



24. REQUIRED WEIGHT RESTRICTIONS ON EARTHQUAKE DAMAGED ROAD BRIDGES

General Manager responsible:	General Manager City Environment, DDI 941-8608
Officer responsible:	Road Corridor Operations Manager, Transport and Greenspace
Author:	David McNaughton, Asset Engineer (Planning)

PURPOSE OF REPORT

1. The purpose of this report is to seek the Council's approval to impose legally enforceable weight and speed restrictions on certain Council road bridges that have been damaged post the 2010/11 earthquake events.

EXECUTIVE SUMMARY

2. Staff commissioned a consultant engineering company specialist in bridge design works to determine by structural computations the specific listing over all wards of the Council's earthquake damaged road bridges that require heavy vehicle weight and/or speed restrictions imposed in order that further damages through vehicle usage and that bridge elements stress levels are sustainable. The listing derived details as follows:

LISTING OF COUNCIL EARTHQUAKE DAMAGED ROAD BRIDGES REQUIRING WEIGHT/SPEED RESTRICTIONS								
			WEIGHT		SPEED			
				Max	Max			
			Gross Weight	Weight on	Speed			
Bridge			(Max Sum of	any one	Limited			
No.	Bridge Name	Name of Road	Axle Weights)	Axle	(km/h)			
R101	Bridge St	Bridge St	3500 kg	-	30			
R102	Pages Rd	Pages Rd	-	-	30			
R104	Avondale Rd	Avondale Rd	-	-	30			
R106	Gayhurst Rd	Gayhurst Rd	3500 kg	-	30			
R107	Swanns Rd	Swanns Rd	-	-	30			
R114	Colombo St (Avon River)	Colombo St	-	-	30			
R115*	Armagh St	Armagh St	-	-	30			
R118	Hereford St	Hereford St	-	-	30			
R124	Helmores Lane	Helmores Lane	Bridge closed to vehicle traffic					
R132	Kahu Rd East	Kahu Rd East	-	-	30			
R137	Poynder Ave	Poynder Ave	-	2000 kg	30			
R211	Bowenvale Ave	Bowenvale Ave	16000 kg	8200 kg	10			
R702	Moorhouse Ave overbridge	Moorhouse Ave	-	-	30			
R833	Scruttons Rd No. 2	Scruttons Rd	4500 kg	2250 kg	30			
R835	Van Asch St	Van Asch St	3500 kg	-	30			

^{*} Bridge No. R115 Armagh St traffic lanes reduced from existing two to one (other bridges listed above have no reductions to existing traffic lanes)

FINANCIAL IMPLICATIONS

3. The cost of effecting the weight and speed restrictions herein inclusive of Engineering and Legal fees, newspaper advertisement costs, the manufacturing and installation of signage at each bridge site is approximately \$25,000. There is no budget allocation within normal Council operating budgets for this work as it is a result of damage caused to the structures by the February earthquake. It is anticipated that funding will be sourced via insurance proceeds. If the costs can not be claimed via insurance proceeds existing Transport and Greenspace operating budgets will be used.

Do the Recommendations of this Report Align with 2009-19 LTCCP budgets?

4. The works herein are earthquake resultant. Accordingly, no LTCCP budget allocations have been set. It is anticipated that funding will be sourced via insurance proceeds.

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LEGAL CONSIDERATIONS

- Regulation 11(3) of the New Zealand Government Heavy Motor Vehicles Regulations 1974 empowers the Christchurch City Council to impose weight and speed restrictions on Council road bridges.
- 6. Regulation 11(13) of the New Zealand Government Heavy Motor Vehicles Regulations 1974 states that any weights or speeds limit fixed on a bridge by the road controlling authority shall remain in place (unless revoked or amended sooner) for no longer than is required and for a maximum period of 12 months.
- 7. The installation of any parking restriction signs and/or markings must comply with the Land Transport Rule: Traffic Control Devices 2004.
- 8. On adoption by the Council to impose the weight and speed restrictions herein on road bridges the steps to be followed thereafter are to:
 - (a) Per the Council's lawyers, inform Central Government via the New Zealand Transport Agency (NZTA) the details per a legal gazetting process;
 - (b) Newspaper advertise, in the Christchurch Press, to publicly notify details on two separate dates spaced not less than one week apart;
 - (c) On completion of (a) and (b), erect signage at each bridge site specifying details.

Have you considered the legal implications of the issue under consideration?

As above.

ALIGNMENT WITH LTCCP AND ACTIVITY MANAGEMENT PLANS

10. Not applicable (earthquake works).

Do the recommendations of this report support a level of service or project in the 2009-19 LTCCP?

11. Not applicable (earthquake works).

ALIGNMENT WITH STRATEGIES

12. Not applicable (earthquake works).

Do the recommendations align with the Council's strategies?

13. Not applicable (earthquake works).

CONSULTATION FULFILMENT

14. No consultation has been undertaken.

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STAFF RECOMMENDATION

It is recommended that the Council:

(a) adopts the weight and speed restrictions to the road bridges as outlined below:

LISTING OF COUNCIL EARTHQUAKE DAMAGED ROAD BRIDGES REQUIRING WEIGHT/SPEED RESTRICTIONS								
			WEIGHT		SPEED			
			Gross Weight	Max Weight on	Max Speed			
Bridge			(Max Sum of	any one	Limited			
No.	Bridge Name	Name of Road	Axle Weights)	Axle	(km/h)			
R101	Bridge St	Bridge St	3500 kg	-	30			
R102	Pages Rd	Pages Rd	-	-	30			
R104	Avondale Rd	Avondale Rd	-	-	30			
R106	Gayhurst Rd	Gayhurst Rd	3500 kg	-	30			
R107	Swanns Rd	Swanns Rd	-	-	30			
R114	Colombo St (Avon River)	Colombo St	-	-	30			
R115*	Armagh St	Armagh St	-	-	30			
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