

STAFF REPORT

TO: Chairman and Members, Engineering Services Committee

FROM: Steve Elkington Road Asset Engineer

REFERENCE: T601

DATE: 30 January 2007

SUBJECT: **TRANSIT NEW ZEALAND SPEED LIMIT PROPOSAL - APPLEBY HIGHWAY (SH60)**

1. PURPOSE

To recommend that Council supports Transit New Zealand's proposal to lower the current speed limit on State Highway 60 from the Appleby over-bridge to the western side of McShane/Pugh Roads intersection.

2. BACKGROUND

A scheme assessment report was completed for Transit NZ by its consultant last year which investigated and recommended the installation of a painted flush median from the old railway overbridge to the McShane/Pugh Roads intersection. The report also recommended a major upgrade of the McShane/Pugh Roads intersection with left turn lanes and right turn bays as well as changes to the speed restriction.

The design of the Appleby Flush Median has been completed and construction is awaiting the alteration of the designation and finalising the land purchase required. If all approvals are obtained then construction is likely to commence shortly.

State Highway 60 carries 8150 vehicles per day with 8% Heavy Commercial Vehicles.

Pugh Road has a traffic volume of 630 vehicles per day.

McShane Road has a traffic volume of 860 vehicles per day. Currently approval has been granted for the expansion of the Appleby Village (tourist/craft) development and there is also a proposal for a major subdivision further along McShane Road. These developments will increase the traffic volume significantly over the next few years.

2.1 Proposed Speed Restriction

The proposal is in two parts and extends over a distance of approximately 1.6km from the old railway overbridge to a point on the western side of the intersection of State Highway 60 and McShane/Pugh Roads:

- a) Relocate the 50km/h threshold from the summit of the railway overbridge to a point about 250m further west. This will mean the whole of the railway overbridge and the last of the urban houses will be included in the 50km/h zone.

The railway overbridge has limited side clearance and fairly short vertical curves as the highway climbs up and across the overbridge. The 50 km/h threshold would be situated near the Borcks Creek culvert. The proposal would be to install large green threshold signs at this location.

- b) Implement an 80km/h speed restriction from the 50km/h threshold along State Highway 60 to a point about 200m west of the intersection of State Highway 60 and McShane/Pugh Roads. This would place the 80/100 km/h change at the western approach to the intersection where the kerb and channel, turning lanes and intersection lighting will commence. The full length of the proposed 80km/h zone will cover the new intersection layout and the proposed flush median.

2.2 Speed Warrant Survey

Speed limits in New Zealand are set in accordance with the Land Transport NZ Guidelines for Setting Speed Limits.

Proposed 50km/h Zone – The rating on the first 100m section meets the Land Transport required rating of 11 but the next three 100m sections fail to meet this requirement. The average rating for the whole proposed 50km/h zone extension is **5**. Although this is below the normally required rating, the presence of the overbridge and its approaches makes it sensible.

Proposed 80km/h Zone – This zone covers a length of 1140m. Over this length six of the 100m sections meet the Land Transport rating of 3 however the remaining six fail to achieve this rating. The average rating over the whole proposed length of 80 km/h is right on the rating of **3** and therefore meets the requirement for 80km/h.

2.3 Crash Analysis

In 2004 the mid block crash rate for the section of State Highway 60 from Three Brothers Corner to Redwood Road (6.6km) was 13.5 (crashes per 100 million vehicle km travelled).

An analysis of the proposed 80km/h section of State Highway 60 provided the following results for mid block injury crashes:

5yr period 2001 to 2005	Crash rate	18
2yr period 2004 to 2005	Crash rate	29*

For comparison typical crash rates are as follows:

Tasman rural State Highways	Crash rate	22
Similar style rural State Highways	Crash rate	16
All NZ rural State Highways	Crash rate	16

(* This is over a short period of time and a relatively short distance)

The recent mid block injury crash rate (last 2 years) over the section of highway in question is high when compared to typical crash rates. The proposal is to address this issue by a combination of major intersection upgrade, a painted flush median supported by a speed reduction.

3. COMMENT

It is not envisaged that Transit's proposed lower speed limit on the Appleby Highway (SH60) will have any significant impact on local roads. This is due firstly to Council's recent intention to extend the existing 70kph speed limit on Queen Street to the MDF Plant, which is on the western side of McShane Road intersection and secondly, the majority of users of both local roads and state highways choose the route which best suits their travel plan. The amount of traffic travelling down Pugh, McShane and Bartlett Roads is relatively low compared to Queen Street and SH60. Traffic counts on these roads are regularly undertaken therefore any appreciable increase in traffic on these routes will be monitored.

4. RECOMMENDATION

THAT a letter be sent supporting Transit New Zealand's proposal to lower the speed limit on SH60 between the old railway over-bridge and a point on the western side of the intersection with McShane/Pugh Roads.

Steve Elkington
Road Asset Engineer