

Chairperson and Community Board Members
WAIKANAE COMMUNITY BOARD

15 MAY 2012

Meeting Status: **Public**

Purpose of Report: For Decision

KAPANUI SCHOOL TRAVEL PLAN - NGARARA ROAD PEDESTRIAN IMPROVEMENTS

PURPOSE OF REPORT

- 1 This report seeks the Board's approval for the installation of traffic control measures as part of infrastructure improvements associated with continued development of the Kapanui School Travel Plan.
- 2 This matter was previously considered by the Board on 3rd April 2012 as part of report IS-12-494. The Board requested further information, the details of which are included in this report.

SIGNIFICANCE OF DECISION

- 3 The recommendations in this report do not trigger the Council's significance policy.

BACKGROUND

- 4 In November 2010 Kapanui School, in partnership with Kapiti Coast District Council and Greater Wellington Regional Council, began the School Travel Plan process. School Travel Plans are developed by school communities in order to develop safe, active and sustainable travel choices for students' trips to and from school. This process included a parent survey, a student survey, discussions with the school staff and a mapping exercise.
- 5 Ten Kapiti schools have completed the survey process and have developed a school travel plan. From the plans a wide range of infrastructural improvements have been implemented at schools, including courtesy, pedestrian and kea crossings, footpath improvements, intersection modification, car parks, kiss and drop off areas, bike lanes and other safety features. The travel plans also engage the school community in various volunteer activities, including crossing patrols, walking school bus drivers and cycle train leaders. Other initiatives include car pooling, walking groups and working with students via inquiry based learning methods.
- 6 At Kapanui School surveys were sent out to 360 student households and 254 were returned. This was a 70% return rate, the highest thus far in the school travel plan process.

- 7 Kapanui School had 57% of children being driven to school, higher than the Kapiti average of 50%. 100 parents cited that the reason that they drove their children to school was due to them being worried about their child's road safety round the school.
- 8 There were 434 walking trips to school and 337 cycling or scooting trips per week. Kapanui School has one patrolled crossing on Rimu Street and the previously approved, unsupervised, crossing outside the school's second entrance on Belvedere Avenue will be constructed shortly.
- 9 At present there is no formal crossing point across Ngarara Road. School children wishing to cross Ngarara Road to continue their journey along Ngarara Road to Te Moana Road and Park Avenue must either carefully cross the road at the Rimu Street intersection or walk north to the informal crossing point adjacent to the swimming pool.
- 10 In November 2011 the school participated in a re-survey via a week long class survey. Although Kapanui School is one of the most active schools in encouraging sustainable transport in the Kapiti region, the percentage of parents driving their children to school has remained stable. However, disappointingly, active travel is down; walking by 3% and cycle/scooting by 5%. This has been compensated for by an increase in bus travel and car pooling. The school feels it has done its part in encouraging active travel but is waiting for the infrastructural improvements outlined in this report. Parents have indicated that they would be more likely to let their children use active travel if the crossing on Ngarara Road was installed and the intersection of Rimu Street/Ngarara Road improved.
- 11 The proposed Ngarara Road crossing and improvements to the Rimu Street/Ngarara Road intersection would complement the pedestrian crossing improvements on Belvedere Avenue approved by Waikanae Community Board on 3 April 2012.

CONSIDERATIONS

- 12 After the School Travel Plan survey was completed Kapanui School made a commitment to develop safe and active travel to school.
- 13 Parents were very concerned about children crossing Ngarara Road, this was the predominant concern outlined in the School Travel Plan survey. The concerns can be assigned to three areas; no safe crossing point, the speed of cars travelling on Ngarara Road and the lack of visibility of children crossing. The solution advocated was for a pedestrian crossing to be installed on Ngarara Road. Parents also strongly advocated for measures to slow traffic down on Ngarara Road.
- 14 Parents were concerned about the design of the Rimu Street/Ngarara Road intersection. They commented that it was too wide for children to safely cross and cars entered and exited Rimu Street without slowing down.
- 15 Waikanae School has also requested that a pedestrian crossing be placed on Ngarara Road, as large groups of students cross Ngarara Road to use the swimming pool (Survey conducted November 2011).

- 16 Both Waikanae and Kapanui schools see the Waikanae pool, the sports grounds, the skateboard park and children's playground as major assets to their community, which are all frequently used by children who regularly walk across Ngarara Road to access them.
- 17 Several different types of crossing were considered for Ngarara Road:
- A "Courtesy crossing": this is a delineated crossing area featuring kerb build-outs but with no requirement for vehicles to stop to let pedestrians cross the road. Whilst this would provide a dedicated crossing point as opposed to the current situation where pedestrian cross with no protection, it was deemed inappropriate for a crossing facility primarily serving school-children who may not necessarily wait for cars to stop.
 - Kea crossing: as above but with a school crossing patrol, complete with swinging stop signs, at the start and close of the school day. Whilst this would be the preferred option for school children, it requires the school to provide adult supervision for the crossing patrol.
 - Zebra crossing: a zebra crossing would provide an overt crossing point giving priority to pedestrians crossing. The New Zealand Road Code states that when coming up to zebra-marked pedestrian crossings drivers shall:

Slow down and be ready to stop for any pedestrians stepping onto, or on the crossing. This also includes people obviously waiting to use the crossing. If there is no raised traffic island in the middle of the crossing, stop and give way to pedestrians on any part of the crossing. If there is a raised traffic island in the middle of the crossing, stop and give way to pedestrians on your half of the road. Wait until the pedestrian has crossed in front of you and is clear of your vehicle before you proceed.

Zebra crossings at locations with inconsistently intense usage can be problematic. In order to ensure that drivers remain aware of the need for caution outside of busy periods, additional complementary measures should also be implemented in advance of the crossing point. There is a school of thought that suggests that zebra crossings with low patronage become part of the streetscape and drivers, not used to stopping at them, start to ignore them. This results in the zebra crossing potentially providing a false sense of security for pedestrians crossing the road.

- 18 Whilst a kea crossing would provide a safe crossing point during school hours it would not suitably accommodate pedestrians wishing to access the swimming pool and playground at other times. It is considered that the benefits of installing a zebra crossing to provide a safe point for pedestrians to cross Ngarara Road outweigh the potential issues regarding low usage of the crossing. A zebra crossing at this location would also improve pedestrian connectivity to the Waikanae swimming pool and the playground, as well as the route to Te Moana and Park Avenue.
- 19 It is proposed to install a zebra crossing across Ngarara Road, to the north of Rimu Street. This is close to the desire line for school children wanting to cross

Ngarara Road and proceed down to Park Avenue. The proposed zebra crossing location is shown on Attachment 1.

- 20 Whilst Ngarara Road has a posted speed limit of 50 kph, the road is quite wide and doesn't encourage low vehicle speeds. After an engineering assessment it was deemed that additional vehicle speed control devices would be required on the approaches to the zebra crossing. These devices will also provide the necessary advance warning to ensure that driver approach the proposed crossing with caution outside of busy periods.
- 21 In order to keep vehicle speeds within the posted speed limit of 50kph, given that Ngarara Road is also 11m wide in some places, it is proposed to install a passive form of traffic calming at three locations in advance of the proposed Ngarara Road zebra crossing.
- 22 The proposed traffic calming devices consist of three pre-formed rubber cushions narrow enough for vehicle to pass over them with negligible effect. In order to negotiate the cushions, drivers need to correctly align their vehicles with the devices, encouraging a reduction in their speed. The cushions are placed in such a way to allow buses to drive over them without any contact. These devices are used internationally to encourage lowers vehicle speeds without punishing drivers complying with the posted speed limit or making bus journeys uncomfortable for the passengers and driver. This method of traffic calming does not compromise cycle safety, as the cushions are placed a sufficient distance from the channel to allow cyclists to pass by them without hindrance.
- 23 A similar arrangement to the Ngarara Road proposal has recently been approved by Paraparaumu/Raumati Community Board. Six rubber speed cushion arrangements are to be installed along Bluegum Road, Paraparaumu. Construction of this project is due to commence within the next six weeks.
- 24 A cross-section of the proposed Ngarara Road traffic calming cushion arrangement is shown as an inset on Attachment 2. A photograph of a similar rubber speed cushion arrangement is enclosed as attached 3.
- 25 It is proposed to place three sets of rubber traffic calming cushions on Ngarara Road. The first, in advance of the proposed zebra crossing, is located to the south of the Rimu Street intersection. The second, again in advance of the proposed zebra crossing, this time slowing cars coming the other way and located on the northern side of the Rimu Street intersection. The third set of traffic calming cushions is proposed to be placed adjacent to the bus stop near the swimming pool; at this location the speed cushions will encourage drivers to maintain a slow speed as they approach the existing informal crossing to the swimming pool entrance from the north and approach the parking area, if travelling from the south.
- 26 Alternatives to the proposed rubber speed cushions and their potential issues, if used to complement the proposed zebra crossing at this location in Ngarara Road, are listed below.

Kerb build-outs

- Permanent traffic calming feature. Expensive to adjust.
- Ineffective without additional traffic calming in wide road corridors.

- Obstructs cyclists, especially if road is suitably narrowed in order to make the device effective.
- Creates a potential conflict point between cyclists and vehicle by forcing them into the traffic lane.

Chicanes

- Expensive.
- Permanent traffic calming feature. Expensive to adjust.
- Presents an exciting challenge for young and/or adventurous drivers.
- Punishes drivers obeying the speed limit by making the route overly torturous.
- Creates a potential conflict point between cyclists and vehicles.

Road narrowing

- Expensive.
- Permanent traffic calming feature. Expensive to adjust.
- Creates a potential conflict between cyclists and vehicles by forcing them to share a narrowed lane.
- Drainage issues. Alterations would be required to the channel to ensure that surface water continued to flow.
- Reduce on-street parking. The narrowed area would have no space for vehicles to park.

Speed bumps (Watts profile or similar)

- Permanent traffic calming feature. Expensive to adjust.
- Designed for 30kph environments and not 50kph.
- Difficult to construct accurately (the resultant speed bump sometimes being too high or too low).
- Punishes drivers that would obey the speed limit by making the route overly torturous.
- Creates an obstruction for cyclists.

Additional signage and road markings

- Unlikely to encourage drivers to obey the speed limit.
- Additional clutter in the street.

27 The above alternative traffic calming devices were dismissed as inappropriate for Ngagara Road due to the likelihood of them being less effective than the rubber speed cushions, more expensive and creating a potential issue for cyclists; the reduced road width forcing them closer to motor vehicles.

28 The biggest influence on vehicle speeds is what drivers perceive to be the available road space for their vehicles; hence wide carriageways encourage higher speeds. For traffic calming to be effective the driver's perception of the road space must be altered. If this is not possible the only way to reduce speeds is by the provision of a vertical obstruction. The proposed rubber speed cushions provide both of these forms of traffic calming, in moderation; achieving a good calming effect without the discomfort. Drivers will be required to slow down to

the posted speed limit and align themselves to drive through the narrower wheel space and avoid running over the speed cushion.

- 29 It is proposed to reduce the width of the traffic lanes at the entrance into Rimu Street by installing a kerbed build-out and remarking the road. Whilst there is no footpath on the eastern side of Ngarara Road south of Rimu Street, this revised layout will encourage lower vehicle speeds when entering and exiting Rimu Street and make crossing on the eastern side of the intersection easier for those that wish to do so. The proposed layout is shown on Attachment 1.
- 30 The proposed works, as shown on attachment 1, have been independently audited by a certified road safety auditor in accordance with NZTA procedures. The safety auditor suggested some amendments to the no-parking areas, which have now been incorporated into the design. The safety auditor also recommended that extra speed cushions be placed in the parking spaces adjacent to the proposed traffic calming areas to stop drivers avoiding the devices via the parking spaces when cars are not parked there. These extra cushions may be added at a later date should this problem manifest. Once the works are complete, as is usual practice, a post-construction safety audit will be undertaken and any issues raised attended to.

Financial Considerations

- 31 The estimated cost of the pedestrian improvements to Rimu Street, the provision of traffic calming cushions and the zebra crossing along Ngarara Road is \$50,000.
- 32 These cost will be borne from the Council's minor improvements budget 2011/2012.

Legal Considerations

- 33 There are no legal considerations.

Delegation

- 34 The Waikanae Community Board has:

“Authority to approve or reject officer recommendations relating to all traffic control and signage matters, in relation to existing local roads within the community board's area, except for changes to speed restrictions on local roads. (The latter power has been delegated to the Regulatory Management Committee).”

Consultation

- 35 There has been ongoing dialogue between the school and Kāpiti Coast District Council officers regarding their pedestrian safety concerns along Belvedere Avenue and Ngarara Road. A survey was sent to every parent or caregiver (360 recipients) and 254 completed surveys were returned, a 70% return rate; the highest in the school travel plan process. The survey is both quantitative and qualitative which allowed parents to make specific comments about road safety.

Children were also interviewed and they also made comments about the risks they perceived at Belvedere Avenue and Ngarara Road.

- 36 Letters have been sent to the residents and owners of properties adjacent to the proposed works. The letters explained the need for the pedestrian crossings and included a plan of the proposals. We have received no objections from the resident and property owners.

Publicity Considerations

- 37 The public will be notified prior to works commencing on site and again once the improvements are complete.

Policy Implications.

- 38 There are no policy implications.

RECOMMENDATIONS

- 39 That the Waikanae Community Board approves the installation of a zebra crossing and associated traffic control devices across Ngarara Road to the north of the Rimu Street intersection and alterations to the width of the Ngarara Road/Rimu Street intersection, as shown on Attachment 1 to Report IS-12-550.

Report prepared by:

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ATTACHMENTS:

- Attachment 1: Drawing C012-203 Rev. D Ngarara Road Layout Plan
Attachment 2: Photograph of Rubber Speed Cushion Arrangement