Pedestrian Treatments at Signalised Intersections

Axel Wilke and Susan Cambridge are proposing to discuss design philosophies for signalised intersections in terms of pedestrian treatments.

Axel through his employer City Design has been providing consultancy services to Transit New Zealand. He has developed a scheme plan for the SH75 intersection with Halswell Junction / Sparks / Kennedy's Bush Roads in the Christchurch suburb of Halswell.

Features of the intersection are three sliplanes at the signals and an additional sliproad into Kennedy's Bush Road. A shopping complex and a library are located next to the intersection, resulting in some pedestrian usage. A primary school some 500 m away further adds to the pedestrian demand. The land uses suggest that a number of very young and old pedestrians will be using the intersection.

In order to cater for pedestrians at the intersection, at least three different design philosophies could be followed:

- (1) Provide sliplanes as per the proposal shown.
- (2) Provide sliplanes with pedestrian crossings.
- (3) Do not provide sliplanes, but have motorists turning left at the traffic signals.

Case (1) requires pedestrians to yield to motorists, whereas case (2) gives pedestrians the right of way over motorists. In case (3), turning motorists would cross the pedestrian crosswalk.

All three cases have some problems associated with them. Some pedestrians, especially the more vulnerable ones, might have problems finding appropriate gaps in the stream of left turning vehicles (1). Motorists often fail to give way to pedestrians at pedestrian crossings (2) or when turning over a crosswalk (3).

Axel and Susan are not aware of any research undertaken in New Zealand regarding the appropriate treatment of signalised intersections in terms of pedestrians. They would appreciate feedback from other practitioners. Which philosophies do other road controlling authorities follow? Has research regarding crash rates been undertaken? Does everybody use the pedestrian warrant procedure for determining the appropriate treatment?

Feedback directly to the authors is also welcome:

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