

Appendix 1: Ramp metering signal trial

Purpose of trial

Transit New Zealand must optimise traffic movement on the motorway network in the Auckland area to provide high levels of efficiency and safety. Overseas experience suggested ramp metering on critical on-ramps provided opportunities to maintain smoother and higher traffic flow.

Experience with an experimental form of ramp metering on the northern motorway in the 1970s demonstrated the potential of the system. Recent experience in Melbourne also showed how ramp metering might operate but used a significantly different form of signal display from that used elsewhere.

Land Transport Safety Authority, with support from its National Traffic Signals Committee, had recommended in the proposed *Land Transport Rule: Traffic control devices* that ramp metering be permitted. The trial proposed by Transit New Zealand would enable the testing of a number of new approaches to signal and sign displays. Consequently the trial received approval from the Director of Land Transport Safety (Director) by notice in the *NZ Gazette* on 8 January 2004. (See attached copy).

Need for approval

The ramp metering trial required approval to evaluate possible changes to traffic law. The Director was required to approve a non-conforming regulatory sign 'One Vehicle Per Green Each Lane', a number of advisory signs and other features but, more particularly, allow yellow aspect signal displays of less than the mandatory three second minimum.

Results and action

The trial demonstrated positive gains in motorway efficiency and promising safety benefits. The Director was satisfied ramp metering in the form described should be incorporated into the *Land Transport Rule: Traffic Control Devices*, and this has now occurred.

Contact details

Leon Wee, Phone 09 368 2000 e-mail leon.wee@transit.govt.nz
Transit New Zealand, PO Box 1459, Auckland