

Traffic Note 21

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Signs and Markings for Passing Lanes - Information

1 Purpose

Transit New Zealand (Transit) in consultation with the Land Transport Safety Authority (LTSA) has decided to adopt some changes to the signs and markings used for passing lanes. These changes arose through public concern about aspects of their design and use, discussions at Traffic Management Workshops and analysis of overseas practices. This Note describes the nature of the changes in broad terms and some issues that arose during the development of the final proposal.

2 Markings

The most significant marking change is to install a continuity line in the diverge area. This marking should encourage motorists to use the left-hand lane and passing motorists to signal their intention to move into the right-hand lane. Trial markings in the Wellington area demonstrated the need for careful application of the continuity line to ensure the marking achieves its purpose. The 1.0 m/sec sideways movement suggested for establishing the taper is a desirable minimum. Judgement is required in determining the start point and the taper shape relative to the centre- and edge-lines.

3 Signs

A range of new signs and a clear specification for location of existing signs has been developed.

Passing Lane xxx Ahead

Signs indicating a passing lane ahead are suggested at 2km and 400m distances in advance with additional signs at 5, 4, 3 or 1km as appropriate. These information signs are in a new format using black lettering on white background.

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Road Narrows Ahead Sign (PW-43.2)

Passing lanes have Road Narrows Ahead (PW-43.2) signs erected on both sides of the highway at varying distances from the point where the passing lane terminates. The distances on the supplementary board varied according to operating speeds and in practice ranged from 130 to 280 metres. Motorists have difficulty judging such precise distances and a fixed distance should provide more value. It has been decided to erect PW-43.2 signs 200 metres in advance of the lane line termination.

A Road Narrows (PW-43) sign will be located at each side of the highway at the point where the lane terminates unlike the previous range of positions depending on speed.

Keep Left Unless Passing

A new sign KEEP LEFT UNLESS PASSING has been approved (*NZ Gazette* 17 Feb 2000, No 13, page 322) as a substitute for USE LEFT LANE UNLESS PASSING. Road controlling authorities should use the new sign for new passing lanes and consider a replacement process for existing signs.



4 Sign Design and Positioning

It was originally intended the USE LEFT LANE UNLESS PASSING wording would be used but with new formatting of black legend on a white reflectorised background compared to the existing white on black sign. The lettering height for rural speeds for the new sign was set at 160mm. A number of concerns were raised about the proposed design and these were confirmed with a trial sign placed at a highway site.

The sign layout meant there were large areas of white reflectorised 'space' and this, along with the narrow stroke width adopted for the lettering and the ensuing halation effect, created difficulties in clearly reading the message at night. The new sign, having three lines instead of four and using Modified E Series lettering with wider stroke widths overcame these problems of the original design.

This experience highlights the need for signs using black lettering on reflectorised backgrounds to be carefully designed to ensure they are legible. Close attention to the specifications of sign design is necessary.

Attention must also be given to careful placement of reflectorised signs to avoid possible and undesirable specular reflection. This has become more important as higher grades of reflective material and more reflectorised white backgrounds are installed. Section 1.10 of the *Manual of Traffic Signs and Markings* (MOTSAM) details desirable orientation of reflectorised signs.

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5 MOTSAM Updates

The full details of the passing lane signs and markings will be contained in a future update of MOTSAM. In the meantime those who need to have a copy of the full details should write to: *Traffic and Design Section, Transit New Zealand, PO Box 5084, WELLINGTON*. Alternatively, the March 2000 *Signs and markings for passing lanes* amendment to the MOTSAM manual can be downloaded from the Transit NZ website:

www.transit.govt.nz/technical_information/index.html.

Click on 'Manuals & Amendments' then *Manual of Traffic Signs and Markings*.

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