
Innovative speed management and accident reduction: A75 route safety improvement schemes

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1 Abstract

The variation in accident risk on Scotland's strategic road network is of ongoing national concern – particularly in rural areas where strategic A-roads pass through small settlements and villages. The A75 from Stranraer to the M74 is a key route for HGV traffic from Ireland to both Central Scotland and England, with the proportion of HGV traffic being 17% as opposed to 2.8% over the remainder of the strategic road network. Casualties involving HGVs on the A75 are 600% higher than the national average and the speed of HGV traffic is a serious issue with haulier bodies claiming undue pressure to reduce time schedules and meet onward ferry connections. Thus the A75 has been the focus of safety initiatives and investigations since 2016. Scotland TranServ have been responsible for AIP throughout Dumfries and Galloway since 2013 and have focused both on key sites and on the route holistically with the broad objectives of raising awareness, and reducing casualties by influencing driver behaviour such that speeds are lowered throughout the route and specifically at locations of concern.

A range of innovative measures have been implemented over the last 2 years at a set of key locations. Vehicle Activated Signs - where a "slow-down" message is displayed alongside a relevant speed limit roundel, determined by the vehicles class, have been utilised with a trigger slightly in excess of the speed limit alongside more traditional signage. Variable signs in conjunction with underground vehicle detection have also been used to alert drivers to possible queuing ahead and prior to junctions. Further innovative junction treatment of solar studs have been implemented and a trial has been conducted into the effectiveness of reverse speed discrimination traffic signals (where a speeding vehicle will trigger traffic signals to turn to red – hence imposing a speed reduction).

This paper presents speed and accident trends over the route of the A75 and also at case study sites where specific innovative management measures have been used.

We will present

1. Impact of 6 sets of VS (speed) signs across the route,
2. Impact on queues and casualties of the queue warning system at the A701 Dumfries roundabout,
3. Impact of VS on turning incidents at Annan junction,
4. Community perception of solar studs at A751 to Palmuir,
5. Speed impact of VS at Crocketford and
6. Pilot study results from reverse discrimination traffic signals at Springholm. The final pilot scheme has prompted a policy review and probable change of TSRGD regulations.

The case studies will be discussed individually as to their local impacts and also as part of the entire route safety programme.

2 Presentation slides

For a copy of the presentation slides for this paper please contact: Vincent.Tait@scotlandtranserv.co.uk