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VARIABLE SPEED LIMITS OUTSIDE SCHOOLS: PILOT SCHEMES IN THE REPUBLIC OF IRELAND

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A pilot scheme involving periodic time based speed limits outside schools was undertaken in the Republic of Ireland in 2006. This paper outlines the key results of the scheme.

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THE USE OF VARIABLE SPEED LIMITS OUTSIDE SCHOOLS – REPUBLIC OF IRELAND CASE STUDY

BACKGROUND

Section 9(5) of the Road Traffic Act 2004 introduced the concept that provided that speed limits may be deployed at selected restricted times.

*“The Act introduced powers to local authorities which allowed for the adoption of separate speed limits on different carriageways and lanes on roads, the application of special speed limits for particular periods and in particular circumstances”.*¹

Guidelines for the application of special speed limits were subsequently issued by the Minister for Transport to all local authorities in Ireland in April 2005.

The guidelines state that great care should be exercised in relation to the use of this facility and note that the use of reduced speed limits may not necessarily be the correct response to every road safety issue. It does however, note the suitability of locations such as the approaches to schools when children are coming to or leaving the building.

Local Authorities can therefore apply to the National Roads Authority (NRA) for funding towards the cost of special speed limit signs, poles and controllers and the installation of the signs. Once the equipment is installed, its upkeep is the responsibility of the Local Authority.

THE PILOT SCHEME

The NRA carried out two pilot schemes using periodic time based speed limits outside schools in 2006. The primary conclusions of the pilot are shown below.²

Members may wish to note the following statistics when considering the results.

- It is estimated that for every 1 mph reduction in average speed, accident frequency is reduced by 5%.³
- Stopping distances are reduced from 240ft(73m) for 60mph (96kph) to 175ft(53m) for 50mph (80kph).⁴ This equates to a reduction from 18 car lengths to 13 car lengths.

¹ Department of Transport, *Road Traffic Act 2004 Section 9(9), Guidelines for the Application of Special Speed Limits*, April 2005.
<http://monitor.isa/586148452/536325832T0804221147493095281.txt.binXMysM0dapplication/mswordXsysM0dhttp://www.transport.ie/upload/general/6589-0.doc>

² National Roads Authority, *Periodic Speed Limits for Ballytarsna and Derrycreigh Schools*, 2006.

³ Department for Transport, *Speed: Know your limits*, 2004.

⁴ DoE, *Highway Code*, http://www.roadsafetyni.gov.uk/tso_highway_code_text.pdf
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Ballytarsna School, Tipperary

Ballytarsna is situated on the N8, north of Cashel in Tipperary. The school is located just off a National Road which is a single carriageway with a narrow hard shoulder. The full time speed limit at this location is 100kph (62mph). Following discussions, it was decided to install an 80kph (50mph) speed limit outside the school at drop off and pick up times.

Speed counters were installed at a number of points which included 200m prior to the speed limit, at the proposed speed limit location and at the school. Before and after speeds were recorded at 9am, lunch time and 3pm. Mean speeds and 85th percentile speeds were recorded. The 85th percentile is the speed at which 85 out of 100 vehicles travel at and is internationally recognised as a method of setting appropriate speed limits. Key findings are as follows:

- There was evidence that the signs produced speed reductions. Observed reductions in average speed were in the range of 0-10kph (0-6.25mph) with an average reduction of 5.5kph (3.44mph).
- It is clear that in terms of compliance, while speed reductions were being achieved, in absolute terms, drivers were not reducing their speeds enough to observe part time limits.
- The percentage of drivers not adhering to the 80kph speed limit ranged between 8.7% and 55% with an average of 29.34%.
- Speed reductions at the 85th percentile⁵ also showed a range of speed reductions between 0.53kph (0.33mph) and 10.76kph (6.72mph) with an average reduction of 5.07kph (3.17mph).

Derrycreigh School, Co. Cork

The second pilot site was Derrycreigh School, N71 between Bantry and Glengarriff, Co. Cork. The school is located on a National Secondary Route with no hard shoulder and a 100kph speed limit. It was decided that 80kph limit should be adopted and a similar survey was undertaken to that of above.

Before and after speeds were taken at three different sites including the school and approaches to the school. The results showed that:

- On the east bound approach to the school mean speeds actually increased by 2.6kph (1.56mph). The 85th percentile speed decreased by 2.5kph (1.6mph).
- At the school, both mean speeds and 85th percentile speeds increased. Mean speed increased by 10.3kph (6.4mph) and 85% speed increased by 7.2kph (4.5mph).

⁵ The 85th percentile is the speed at which 85 out of 100 vehicles travel at and is internationally recognised as a method of setting appropriate speed limits.

- At the westbound approach to the school mean speeds were reduced by 1.9kph (1.2mph) and 85th percentile speeds were also reduced by 3.7 kph (2.3 mph).
- No compliance levels were available.

Whilst the NRA recognise the limitations of the data and note that this information could not solely be relied upon for any policy decision, it has been decided to use periodic speed limits outside schools that are subject to identified speeding problems.