



## **RSAC Report and Recommendation to Government on Lower Posted Speed Zones (less than 50km/h)**

### **ISSUE**

Provincial approval of speed limits lower than 50km/h on residential streets in Nova Scotia

### **BACKGROUND**

- Nova Scotia Department of Transportation and Infrastructure Renewal (TIR) has received several requests over the years from municipalities and private citizens to permit local traffic authorities to set speed limits below 50km/h in residential areas.
- Section 104 of the Motor Vehicle Act (MVA) states the Minister or a traffic authority with the approval of the Provincial Traffic Authority (PTA) may fix such maximum rates of speed as they may see fit (by erecting maximum speed limit signs).
- It is the longstanding practice of TIR not to support maximum posted speed limits lower than 50km/h, however there is nothing in the MVA that prohibits postings of speed limits lower than 50 km/hr. A number of internal TIR policies would need to be revised if speed limits lower than 50km/h were permitted. The School Zone portion of the MVA would need to be modernized to reflect what speed motorists would be required to drive if a school zone is located on a street with a posted speed of lower than 50km/hr.
- The purpose of RSAC is to provide advice to government to reduce death and injuries on Nova Scotia's roads. In 2013, Government asked RSAC to provide a recommendation on speed limits below 50km/h in residential areas.
- In 2013 the Low Posted Speed Limit Study, prepared by Dillon Consulting, recommended that the province allow posted speed limits lower than 50 km/h on its roads, but only if adherence is given to a warrant system it included for determining what road sections would be suitable candidates for lower speed limits.
- RSAC did not fully endorse the recommendation in the 2013 Dillon Study, due to the lack of definitive supporting evidence offered within the report.
- In 2013, based on the Dillon Study, RSAC recommended "to further study the issue by means of a pilot project which would evaluate several trial sections posted at 40 km/h to determine the effectiveness of lower speed limits on lowering 85<sup>th</sup> percentile

travel speeds. The pilot project would also help evaluate the warrant system suggested in the Dillon Study for determining what road sections would be suitable candidates for lower speed limits.

#### **2015 LOW POSTED SPEED PILOT STUDY**

- In 2015 GRIFFIN transportation group inc. was selected by the RSAC subcommittee to complete a Low Posted Speed Pilot Study (Pilot Study) and provided a draft report to TIR and RSAC May 2016.
- In consultation with the traffic authorities from TIR and Halifax Regional Municipality, 20 sites were selected and subjected to the 2013 low speed limit warrant process.
- A short list of 10 streets were selected, 5 streets that met the 2013 warrant, and 5 sites that did not. Police enforcement agencies were contacted, and over 1,000 notices were sent out to residents living on the selected streets. Shortly after, 1 street was removed from the study, at the request of HRM.
- Data was collected at 9 sites, at 5 time intervals (immediately before 40km/h signs were posted, 1 week after, 3 months after, 6 months after, and 12 months after) for a total of 45 speed surveys. Operating speed (85<sup>th</sup> percentile) and speed variability (percentage of vehicles in a 15 km/h pace) were quantified.

#### **PILOT STUDY OBJECTIVES AND FINDINGS**

- The pilot study objectives were to: assess suitability of the 2013 low speed warrant process from the 2013 Low Posted Speed Limit Study and to evaluate road sections with a 40 km/h speed limit to determine effectiveness over a 1-year time frame.
- Speed results (85<sup>th</sup> percentile) found that there was an average initial 2.4 km/h drop over the 9 sites, which diminished over time, perhaps due to the novelty effect.
- Variability results found that after 12 months, average speed variability increased slightly by 0.7%, but eliminating one outlier, average speed variability decreased by 1.2%
- Pilot study conclusion: speed limit reduction alone is not effective in reducing travel speeds. Changes in speed variability were negligible.

#### **CURRENT SITUATION**

The 2013 Dillon Study and the 2015 Pilot Study both provided information that concludes that speed limit reduction alone is not an effective method of lowering speeds. The warrant system outlined in the 2013 study did not appear to be an effective method of determining good candidate streets for lower speed limits during the Pilot Study, however the lack of successful speed reduction could quite possibly be due to the fact that no other speed reduction methods such as education, enforcement, or physical traffic calming tools were used in conjunction with the lower posted speed limit signs. Communication messaging was used to alert residents to the new temporary speed limit, but messages reminding drivers to slow down, or communication campaigns to promote safe and prudent driving were not used.

The physical environment of the roadway is often what impacts the speed of traffic, and physical changes to the roadway may be required to reduce travel speeds. This issue was discussed at length when reviewing the results of both the 2013 Study as well as the 2015 Pilot Study. Lowering a posted speed limit without making further changes to the environment does not have the intended impact of reducing motorists' speeds.

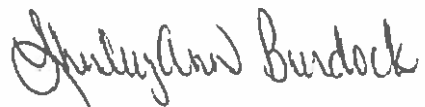
## RECOMMENDATIONS TO GOVERNMENT

Although studies recently completed for RSAC indicate simply posting a speed limit below 50km/h is not effective in lowering travel speeds, there are situations where the existing or planned physical road environment encourages lower travel speeds. In these situations, a speed limit lower than 50km/h may be appropriate. Lower speed limits may also be appropriate to ensure consistency on all streets within a specific area. Therefore, RSAC recommends that the Province:

1. Consider written requests from municipalities for speed limits below 50 km/h. This request must include a traffic study to support the request. Final decisions on requests for speed limits below 50km/h be made by the Provincial Traffic Authority (PTA).
2. Provide a guide or terms of reference to municipalities which includes criteria to be considered by the PTA when evaluating requests for speed limits below 50km/h. This would include acceptable methodology to be used when undertaking an engineering analysis, as well as suggestions on how to communicate this change to the public.
3. Consider requests for speed limits below 50km/h for new local residential streets, if they are designed for speeds less than 50km/h.
4. Review departmental policies to ensure that if some streets are reduced to less than 50km/h, departmental policies, regulations and legislation remain applicable and enforceable. This would include making necessary changes to the MVA to address the possibility of a school zone on a street with a speed limit lower than 50km/hr.
5. Continue to prioritize the issue of speed management when addressing road safety in Nova Scotia.

  
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