

Low Posted Speed Limit Study
REPORT & RECOMMENDATION
TO THE
DEPUTY MINISTER'S STEERING COMMITTEE ON ROAD SAFETY

ISSUE

In the summer of 2012, Transportation and Infrastructure Renewal (TIR) received a request to approve the posting of a speed limit lower than 50km/h on a street in a residential area.

It is TIR's practice to not post or permit municipalities to post speed limits below 50km/h. This has been a long standing practice and was supported by recommendations from a 2003 study which found posting speed limits lower than 50km/h did not result in lower travel speeds.

However, TIR continues to get requests to set speed limits lower than 50 km/h. Given these requests and that the previous study was conducted a decade ago, TIR believed that this would be an opportune time to revisit this issue to determine if there is any new evidence with respect to the effectiveness of posted speed limits that are less than 50 km/h.

BACKGROUND

The Motor Vehicle Act (MVA) is the governing piece of legislation with respect to speed limits on Nova Scotia Highways. It currently specifies that where a highway does not have a posted speed limit, the maximum speed on the highway is 80km/h, except where the highway is within a business or residence district, in which case the maximum speed is 50km/h.

The MVA also permits the Minister or a Traffic Authority, with the approval of the Provincial Traffic Authority (PTA), to fix maximum rates of speed as they see fit. It has long been TIR's position that the Minister or PTA approve only maximum speed limits between 50km/h and 110km/h.

At this time, other jurisdictions in Canada and around the world have implemented lower posted and/or statutory speed limits with the goal of lowering the number and severity of collisions between vehicles and vulnerable road users as well as making communities more "liveable". In order to make an informed decision with respect to the applicability of speed limits less than 50km/h, TIR moved forward to have a new study completed.

In conjunction with the Road Safety Advisory Committee (RSAC), TIR, and a representative from the Halifax Regional Municipality (HRM), a Request For Proposal (RFP) was issued to three consulting firms for a study in order to determine if posted speed limits below 50km/h should be considered and if so, to determine best implementation practices. Dillon Consulting was awarded the contract and began work in March of 2013.

A steering committee comprised of volunteers from RSAC, TIR and HRM was created to oversee the work of the Consultant. Throughout the process, updates were provided to RSAC, the former Minister of TIR (Maurice Smith), the Deputy Minister of TIR, Paul LaFleche, as well

as to the citizen who initiated the request for the study.

The study looked at the following components around posting speed limits: the physical environment, the issue of safety versus security, posting of a lower speed limit sign to result in a lower travel speed, along with a review of current literature, research, and guidelines. Additionally, a survey of Canadian municipalities and their approach to setting speed limits was conducted, and detailed analysis of five Canadian municipalities (Montreal, Edmonton, Stratford (PE), Ottawa, Winnipeg) were reviewed to understand their experiences with posting speed limits lower than 50km/h.

RESEARCH AND ANALYSIS

Based on the research and analysis, four key findings were highlighted in the study:

1. Posting of speed limit signs alone will not reduce vehicle operating speed. Only the physical environment will have a marked effect on the speeds that drivers choose to drive.
2. Speed limits set too low for the physical characteristic of the road can produce an environment where users feel more secure, when they are, in actuality, no safer than at the previously posted speed. Education on the differences between safety and security is critical to increasing safety for all road users.
3. Consistent use of engineering practices backed by national and international research, such as Transportation Association of Canada's (TAC) Canadian Guidelines for Establishing Posted Speed Limits, in combination with reasoned engineering judgment will result in a safer roadway environment (i.e. design considerations).
4. Road safety is a shared responsibility.

Along with the above key findings, a step by step warrant procedure was presented to be used to evaluate requests to lower the speed limit below 50km/h. Individual traffic authorities would hold the responsibility for performing this evaluation and determining if a lower speed limit should be set on a street within their jurisdiction. RSAC is concerned that at this time, not all Traffic Authorities within the province would have the necessary resources, skill set or expertise to administer all phases of the warrant procedure.

Examples of jurisdictions that had implemented speed limits lower than 50km/h were provided in the report. However, there was no concrete evidence provided that posting a speed limit lower than 50km/h would lead to a reduction of travel speeds. This, combined with a lack of outcome and impact evaluation from jurisdictions who have implemented speed limits lower than 50km/h gave RSAC cause for concern. In contrast though, it was noted that TAC currently has set out guidelines for establishing posted speed limits as low as 40 km/h, provided the physical features of the roadway meet certain criteria.

Overall, the report provides minimal evidence that supports the recommendation to allow lower posted speed limits as a method of reducing travel speed and collisions. The research and evidence provided within the report led RSAC to the following conclusions:

1. Physical characteristics and road design are key factors which influence travel speed.
2. Signage alone does not lead to compliance or behavior change.
3. Education and enforcement are required to support and promote compliance.

RECOMMENDATIONS

The Low Posted Speed Limit Study recommends that the province allow posted speed limits lower than 50km/h on its highways, but only if adherence is given to sound engineering, education, and enforcement. RSAC does not fully endorse the recommendation due to the lack of definitive supporting evidence offered within the report.

Therefore, RSAC recommends:

To further study the issue by means of a pilot project which would evaluate several trial sections posted at 40km/h to determine the effectiveness of lower speed limits on lowering 85th percentile travel speeds. The pilot project would also help evaluate the warrant system suggested in the report for determining what road sections would be suitable candidates for lower speed limits.

The above two recommendations will allow RSAC to collect data within a Nova Scotia context in order to provide the province with evidence based research to be used to inform decisions around lowering posted speed limits below 50km/h.

RSAC is in a position to take the lead on the pilot project in partnership with engineering experts within TIR. It is also recommended that a representative from the municipal level be engaged throughout the process. Any and all resources and expertise required to begin the process of developing the above pilot projects can be found at the RSAC table or within TIR. It is expected that a pilot project evaluation would take one to two years to complete.