

Traffic Engineering and Road Safety

March 20, 2015

Colette Smith, President
Velo Cape Breton
PO Box 485
Sydney, NS B1P 6H4

Dear Ms. Colette:

Re: Rumble Strips on Major Highways of Cape Breton Island

Thank you for your letter to Minister MacLellan regarding the Department's rumble strip policy. I've been asked to respond on his behalf. I can advise that a revised policy for the installation of shoulder and centerline rumble strips was implemented by the Department in August of 2014. This policy does take into account comments and concerns previously raised by Velo Cape Breton. In order to ensure adequate paved shoulders for cyclists Directive # 9 in the policy indicates shoulder rumble strips shall only be installed where the paved shoulder is a minimum of 2 metres wide. A copy of the Department's "Continuous Shoulder & Centre Line Rumble Strip Policy" is attached for your information.

Thank you for your interest in road safety related to cyclists. If you have any questions or would like additional information please contact me.

Sincerely,



Mike Croft, P.Eng.
Manager Traffic Engineering and Road Safety
Michael.croft@novascotia.ca

cc Minister, Public Affairs

Continuous Shoulder & Centre Line Rumble Strip Policy

Policy Statement

Continuous shoulder and centre line rumble strips will be placed on 100 Series Highways in accordance with the following policy.

Rationale

Continuous rumble strips are intended to alert a driver, through sound and vibration that their vehicle is leaving their lane and that corrective steering action may be required.

Continuous rumble strips have proven to be an inexpensive, cost effective countermeasure in reducing the frequency of run off the road vehicle collisions (shoulder rumble strips) and cross centre line collisions (centre line rumble strips).

Studies have shown that a significant reduction in collisions can be expected when these counter measures are employed. Centre line rumble strips have shown to reduce collisions anywhere from 17% to 30% while shoulder rumble strips have experienced from 20% to 60% reductions.

Continuous rumble strips are most effective where driver inattention, distraction, fatigue, glare or adverse weather are factors in the vehicle crossing the centre line or leaving the road.

Policy Objectives

To provide for the consistent application of continuous shoulder and / or centre line rumble strips.

Application

This policy applies to all those responsible for provincially owned and maintained 100 Series Highways. The policy refers to shoulder rumble strips, centre line rumble strips or both shoulder and centre line rumble strips as noted within the document.

Accountability

Construction Managers, Project Engineers and Area Managers or those acting on their behalf are responsible for complying with this policy.

Monitoring

District Directors shall monitor the implementation of this policy. Traffic Engineering and Road Safety will monitor the effectiveness of continuous rumble strips in reducing vehicle collisions.

Directives

1. Continuous rumble strips shall be installed and funded as part of all contracts for the repaving, upgrading or new construction of 100 Series Highways as per the guidelines and directives.
2. The width of continuous rumble strips will be as follows:
 - a. Centre line rumble strips shall be the width of a double painted centre line; typically 300mm.
 - b. The preferred width of shoulder rumble strips is 400mm. A width of 300mm may be acceptable in some circumstances based on the recommendation of Traffic Engineering and Road Safety.
3. Continuous rumble strips shall not be installed on bridge structures. Rumble strips will terminate 30 metres prior to the structure and resume 30 metres after the structure.
4. Continuous rumble strips will be discontinued through intersections but will continue past median cross overs, driveways and woods road entrances. Centre line rumble strips will "mirror" the painted centre line markings at an intersection. Shoulder rumble strips will parallel the painted edge line at intersections until the edge line terminates or curves onto the intersecting road.
5. Continuous rumble strips shall only be installed on 100 Series Highways with a posted speed limit greater than 70 km/h.

6. Centre line rumble strips shall be installed in both "passing" and "no passing" zones on undivided highways.
7. Centre line rumble strips may be discontinued in residential areas, where noise may be a factor, at the discretion of the District Directors.
8. Painted centre line markings shall be placed on the highway after centre line rumble strips have been installed.
9. Shoulder rumble strips shall only be installed on an undivided highway where the paved shoulder is a minimum of two (2) metres wide.
10. On a divided highway shoulder rumble strips shall only be installed where the outside shoulder is a minimum of two (2) metres wide and where the median shoulder is a minimum of one (1) metre wide.
11. Shoulder rumble strips will not be installed on "Minor Arterial 100 Series Highways" with an AADT less than 5,000 vehicles per day, unless otherwise approved by the Chief Engineer.
12. Shoulder rumble strips are to be terminated 30 metres prior to the start of an interchange ramp taper and resume 30 metres from the end of the taper.
13. Shoulder rumble strips may be offset from the edge line a distance of up to 300mm in residential areas at the discretion of the District Director in an effort to reduce noise issues.

Guidelines

In addition to 100 Series Highway repaving, upgrading or new construction projects, continuous rumble strips may be installed on 100 Series Highways, and other roads as determined by Traffic Engineering and Road Safety as funding and scheduling permit. It is not recommended that rumble strips be installed on highways that are scheduled to be repaved or upgraded the following construction season.

References

"Best Practices for the Implementation of Shoulder and Centre Line Rumble Strips", TAC Publication, 2001.

Enquiries

Road Safety Engineer

Appendices

Appendix A – Continuous Centre Line Rumble Strips
Appendix B – Continuous Shoulder Rumble Strips