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ANTI-WHISTLING AT REGIONAL ROAD RAIL CROSSINGS

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, April 18, 2007, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. An anti-whistling by-law at rail crossings on Regional roads not be considered at this time.
2. The Regional Chair be authorized to send a letter to the Minister of Transport Canada of the Federal government requesting that York Region rail crossings be included in ongoing pilot tests for the use of Automated Horn Systems intended to replace the train whistle.
3. The Regional Chair be authorized to send a letter requesting Transport Canada to accelerate the development of criteria and standards for the use of the Automated Horn System and that consideration be given to its application at Regional and local road rail crossings in York Region to reduce the noise impacts upon adjacent residential areas.

2. PURPOSE

The purpose of this report is to seek Council support to request the Federal Government, Transport Canada, to include a location in York Region to test the Automated Horn System and to request Transport Canada to accelerate the development of criteria and standards for the use of Automated Horn Systems in Canada.

3. BACKGROUND

Regional staff has received requests from local municipalities to investigate the possibility of eliminating the train whistle at certain crossings on Regional roads. These locations include the Wellington Street and St. John's Sideroad crossings in the Town of Aurora and 19th Avenue, 9th Line and Elgin Mills Road crossings in the Town of Markham.

In the past, Regional staff addressed each request on an individual basis. There is currently one location in Pepperlaw involving two low volume Regional roads where anti-

whistling has been implemented. This report proposes that any further anti-whistling by-laws at rail crossings on Regional roads not be supported at this time.

Currently, liability agreements are in place with Transport Canada, Canadian National Railways and GO Transit with either the local municipality where the crossing is on a local road or with the Region where the crossing intersects with a Regional road. These agreements are in accordance with Transport Canada Railway Safety Directorate and cover the operations of the rail owner, its employees, agents and contractors and name the rail owner as an additional insured. This insurance is intended to protect the road authority and the rail owner against third party claims for bodily injury and property damage.

Municipalities seeking relief from whistling at public crossings must now contact the pertinent railway company directly to discuss the matter. At the same time, the municipality must also notify the general public and all relevant organizations of its intention to pass a resolution forbidding the use of whistles in the area. Each crossing must also have safety measures in place such as:

- Flashing lights and bells
- Clear sight visibility
- Crossing gates

Full details of the required safety measures are included in *Attachment 1*.

Locomotive engineers are required, by law, to sound the train whistle one-quarter of a mile from every public crossing at grade until the crossing is fully occupied by the engine or cars. Full details of this requirement are included in *Attachment 2*.

Even with current safety measures, that include train whistling at rail crossings, there have been eight fatalities involving trains in the last five years, two at Regional and six at local municipal road crossings.

4. ANALYSIS AND OPTIONS

4.1 Anti-Whistling By-law Considerations

Municipalities considering anti-whistling by-laws at public crossings must now contact the affected railway company directly. At the same time, the municipality must also notify the general public and all relevant organizations of its intention to pass a by-law prohibiting the use of train whistles at the crossing. These organizations include the

Canadian Legislative Director, National Representative Canadian Auto Workers, and Vice-President of the Teamsters Canada Rail Conference.

It is a requirement that a crossing safety study be completed by an inspector from Transport Canada at the cost of the requesting organization. The conditions for crossings where relief from whistling is being sought are:

- Crossing must have Flashing lights, Bells and Gates
- Generally, whistling restrictions should be on a 24 hour basis. Under exceptional circumstances, and following consultation with Transport Canada, relief from whistling may be permitted between the hours of 2200 and 0700, local time. However the protection requirements should be the same as those required for a 24 hour whistling relief
- Rules, respecting the sounding of locomotive bells, should still apply
- Where a crossing has experienced two or more accidents in the past five years, even if the requirements laid out in Schedule A are met, the responsible authorities should undertake a thorough safety review

When considering an anti-whistling by-law a number of things must be considered.

1. speed of the train
2. number of tracks
3. pedestrian/bikeway crossing protection

Should a crossing location that is being considered for an anti-whistling by-law not have all the appropriate safety warning devices in place, the road authority would have to pay the cost for the installation of the necessary devices, which could include flashing lights and gates at an approximate cost of \$200,000. There is currently one location that has been identified on Regional roads that would require the installation of gates. This location is on the 9th Line in the Town of Markham.

On Regional roads, the Region is responsible for the Liability Insurance Agreement with the rail authority. Should there be an elimination of a train whistle at a crossing, the Region would have to enter into an additional agreement to assume more liability.

Currently, both Durham and Halton Regions have five rail crossings within their jurisdiction that have anti-whistling by-laws imposed. These crossings adhere to the Canadian Rail Operating Rules and Procedures with Liability Insurance Agreements in place.

While there would be no initial increased cost of insurance premiums for any additional limit of coverage, there would be direct costs incurred for handling, defending and paying of claims that arise as a result of the by-law. These costs would be paid directly by the Region through its insurance deductible. In addition, any increase in claims frequency or

severity would lead to increased premium costs in the future. It is highly likely that the creation of such a by-law by the Region would increase the risk of accidents at these crossings and the potential for claims against the Region.

4.2 Alternative Solution – Automated Horn System

Transport Canada is currently investigating the feasibility of implementing a system called an Automated Horn System at level crossings. This system is currently used in several cities throughout the United States, in particular, California and New Jersey.

The Automated Horn System is designed to provide an audible warning of approaching trains at level crossings. The system is activated remotely upon detection of an approaching train, and projects a recorded train horn along the vehicular approaches to the crossing. Any Automated Horn System failure, such as equipment damage, broken wires or any other situation which renders the system inactive, will result in the train engineer using the on-board train whistle. This provides vital, fail-safe operation of an audible warning indication.

The Automated Horn System provides a constant audible warning once a signal is received from the approaching train. With the sound speakers pointing directly at the lanes of traffic, this eliminates the requirement to sound the train whistle a minimum quarter mile (400 metres) in advance of the crossing. This system reduces noise pollution in neighbourhoods for more than half a mile along the rail corridor thus reducing the noise pollution by 98% to residential areas (*see Attachment 3*).

There are currently two locations in Saguenay, Quebec, that Transport Canada is testing the effectiveness of this technology. The project started in January 2005 and the final report was recently posted for public review.

The Automated Horn System Evaluation Project that was initiated for the Transportation Development Centre Transport Canada was conducted because there are currently no standards or guidelines for the Automated Horn System in Canada. Transport Canada and Canadian railways needed to be in a position to identify the characteristics of the Automated Horn System that are necessary to make them effective, or at least safety-neutral in comparison with the locomotive horns they would be replacing.

The study determined that the overall results of the Automated Horn System are an adequate alternative to the locomotive horn. Although this study has been completed, staff has been notified by Transport Canada that additional studies are required before Transport Canada will consider the use of the Automated Horn System. Warrant criteria, standards and cost sharing formulas need to be developed. Once this has been completed, staff would be able to apply the warrants at various crossings to determine if an Automated Horn System is possible and at what cost. Until then, it is proposed to maintain the status quo.

It is felt that the Automated Horn System would be beneficial to the residents of York Region while maintaining the safety of the crossings, thus eliminating the need for anti-whistling by-laws. Therefore, it is recommended that the Regional Chair be authorized to send a letter to Transport Canada to support the use of the Automated Horn System at Regional and local road crossings and request Transport Canada to accelerate the development of recommendations and create standards, warrants and guidelines for use in Canada.

5. FINANCIAL IMPLICATIONS

If an anti-whistling by-law were to be implemented at a rail crossing that falls under the jurisdiction of The Regional Municipality of York, the Region would assume an increased liability.

Due to this increase in liability to the Region, there would be direct costs incurred for handling, defending and paying of claims. These costs would be paid directly by the Region through our insurance deductible.

Should a crossing location that is being considered for an anti-whistling by-law not have all the appropriate safety warning devices in place, the governing road authority would be responsible for the full amount of the installation of the necessary devices, which could include flashing lights and gates at an approximate cost of \$200,000.

Should the Automated Horn System be approved for use by Transport Canada at York Region rail crossings, the cost for installation of these systems will more than likely be shared by the municipality requesting the anti-whistling by-law and the operating railway.

6. LOCAL MUNICIPAL IMPACT

This report proposes not to allow anti-whistling by-laws at Regional road rail crossings at this time, however, this report does not restrict the local municipalities from passing anti-whistling by-laws on local roads.

Should the use of the Automated Horn System be approved by Transport Canada, consideration will be given to implementing the system in York Region. It is expected that the whistling by the train would be eliminated with the use of the system and thus the amount of noise to residents living along railway tracks will be minimized.

7. CONCLUSION

This report is in response to local municipalities requesting York Region to consider the feasibility of implementing anti-whistling by-laws at certain locations for rail crossings on Regional roads.

After reviewing requested locations for anti-whistling by-laws in the past and a review of collisions involving trains, it is proposed that the Region not adopt an anti-whistling by-law on the Regional road network. Regional staff recommends that anti-whistling by-laws at rail crossings on Regional roads not be considered at this time because of the safety, liability, and financial concerns identified in this report.

Regional staff has recently become aware of emerging technology that appears to have the potential to significantly reduce the level of noise impact to residents along the railway tracks. However; there is no timeline as of yet with regards to an implementation plan.

Before Transport Canada decides to implement this technology, work is required to develop the standards, warrants and cost sharing that would allow the installation of the Automated Horn System at grade crossings.

To assist local municipalities addressing the concerns of residents living in close proximity of railway tracks, Regional staff proposes to revisit this issue once Transport Canada has completed a final review and adopted the use of the Automated Horn System. Therefore, it is suggested that the Regional Chair be authorized to send a letter to Transport Canada requesting consideration of the use of the Automated Horn System at Regional and local road rail crossings in York Region to reduce the noise impact upon residential areas in the vicinity of such crossings.

For more information on this report, contact Brian Harrison, Director, Operations, Roads Branch at extension 5205 in the Transportation and Works Department.

The Senior Management Group has reviewed this report.

(The attachments referred to in this clause are attached to this report.)