



REPORT

REPORT TO: Mayor Bonnette and Members of Council

REPORT FROM: Matt Roj, Traffic Coordinator

DATE: May 28, 2021

REPORT NO.: TPW-2021-0008

RE: Railway Grade Crossing Safety Assessments and Whistle Cessation Review – CN and Metrolinx Crossings

RECOMMENDATION:

THAT Report No. TPW-2021-0008, dated May 28, 2021, Railway Grade Crossing Safety Assessments and Whistle Cessation Review – CN and Metrolinx Crossings, be received;

AND FURTHER THAT Staff undertake the mandated improvements identified through the Railway Safety Assessment at nine (9) railway crossings;

AND FURTHER THAT Staff recommend that whistle cessation is not implemented at the railway crossings on roads under the jurisdiction of the Town;

AND FURTHER THAT Staff forward Report No. TPW-2021-0008 to Halton Region, Ministry of Transportation of Ontario (MTO), Canadian National Railway (CN) and Metrolinx for their information.

BACKGROUND:

Transport Canada introduced new Grade Crossing regulations on November 21, 2014 to improve safety at all federally regulated railway crossings. Railway companies and road authorities were given until November 28, 2021 to share information and upgrade the existing crossings to meet the new regulations identified in the Railway Safety Act and Grade Crossing Regulations and Standards.

To comply with the federal regulations and assess train whistling concerns raised by the public in rural areas, the Town completed the safety assessments of four (4) at-grade railway crossings on the Halton-Subdivision line in 2017. Report No. P&I-2017-0071

provided a summary of the required improvements. All four (4) railway crossings would be considered eligible for the whistle cessation option subject to Council approval once the identified improvements identified in the assessments had been completed.

As indicated in Report No. P&I-2017-0071, train whistling is a crucial safety measure that provides motorists, cyclists and pedestrians with advance warning of an approaching train. Council endorsed Staff's recommendation to not implement whistle cessation at any of the four (4) CN at-grade railway crossings.

It should be noted that in November 1990, the Town passed the By-law No. 90-155 to prohibit the sounding of engine whistles at the 17 Side Road and Trafalgar Road at-grade railway crossings on the CN's Halton-Subdivision line. However, since the enactment of that By-law, additional information has become available that reinforces the necessity for train whistles at at-grade crossings and the enhanced safety it provides for all road users.

COMMENTS:

In September 2019, the Town retained CIMA Canada Inc. (CIMA+), to conduct railway safety assessments at the Town's remaining nine (9) at-grade crossings. Two (2) of the railway crossings are located on the Canadian National Railway's (CN) Halton-Subdivision line and seven (7) on Metrolinx's Kitchener line.

CIMA+ were also required to review and outline the potential safety requirements that would need to be implemented should whistle cessation be considered and provide recommendations on the potential adoption of whistle cessation at these railway crossings.

The at-grade railway crossing safety assessments included the following locations:

- 17 Side Road at 25.43 mile (CN)
- 15 Side Road at 26.63 mile (CN)
- Fourth Line at 33.54 mile (Metrolinx)
- Third Line at 34.25 mile (Metrolinx)
- Halton Region's Acton Wastewater Treatment Facility at 34.85 mile (Metrolinx)
- Eastern Avenue at 35.48 mile (Metrolinx)
- Mill Street East (Hwy 7) at 35.69 mile (Metrolinx)
- Main Street North at 36.20 mile (Metrolinx)
- Dublin Line at 37.20 mile (Metrolinx)

The at-grade railway crossings located on roads under the Town's jurisdiction are currently equipped with railway crossing signs, flashers, bells and barrier gates. The Halton Region's Acton Wastewater Treatment Facility railway crossing is equipped with crossing signs and stop signs.

On December 3, 2019 and December 6, 2019 CIMA+ conducted field inspections to collect the required data for the safety assessments.

The Town's required safety improvements are categorized into the following five priority levels:

- 1) **Ongoing** – maintenance work required on a regular basis.
- 2) **Immediate Mandatory** – safety improvements that require immediate implementation.
- 3) **2021 Mandatory** – safety improvements that must be completed by November 28, 2021, as per Grade Crossing Regulations.
- 4) **2021 Recommended** – safety improvements for the Town to consider, but not required as per Grade Crossing Regulations. These improvements represent nonconformities with the Manual of Uniform Traffic Control Devices Canada (MUTCDC) and/or represent potential safety concerns.
- 5) **Additional** – safety improvements not required by Grade Crossing Regulations but have the potential to improve overall safety. This category also includes the required improvements for whistle cessation.

A full list of improvements for each railway crossing is provided in Attachment 1.

The total estimated cost for the mandatory improvements to meet Transport Canada's regulations by November 28, 2021 is \$10,000 for the CN's Halton-Subdivision and \$157,500 for the Metrolinx's Kitchener Line.

The Town's share of the costs are \$5,250 and \$92,600 for CN and Metrolinx crossings, respectively.

Whistle Cessation Review Process

In the past several years, the Town received several complaints from area residents regarding the noise pollution generated by train whistling and the possibility of implementing whistle cessation at the Town's crossings. These requests are anticipated to increase in the future with the implementation of two-way/all-day GO Train service on Metrolinx's Kitchener Line.

Notwithstanding noise pollution concerns, train whistles are safety devices that give advance warning to motorists, cyclists, pedestrians, farm vehicles and other road users about the approaching trains at the at-grade railway crossing locations.

Train whistling requirements are controlled through the Canadian Rail Operating Rules (CROR) as prescribed under the Railway Safety Act of Canada. Section 14 of the CROC outlines in Rule 14(l) (i) when train whistling must be sounded at public at-grade railway-roadway crossings.

To pursue whistle cessation, the responsible municipality or road authority (municipality) acts as the proponent for train whistle exemptions and is responsible for initiating the process. This procedure is consistent with the requirements in Section 23.1 of the

Railway Safety Act (RSA), Section 104 of the new Grade Crossings Regulations and the safety requirements within the Grade Crossings Standards (GCS).

If a municipality requests to eliminate whistling at public at-grade crossings, the following steps are required:

- 1) Interest in whistling cessation is expressed.
- 2) Municipality consults with the railway company.
- 3) Municipality issues notifications and public notice.
- 4) Municipality and the railway company assess the crossing(s) in accordance with the Grade Crossing Regulations (GCR) and Grade Crossing Standards (GCS).
- 5) Municipality and the railway company agree that the prescribed requirements are met at the crossing(s). The municipality and the railway company may request a final decision from Transport Canada.
- 6) Municipality passes a resolution declaring that it agrees that train whistling should not be used at the crossing(s).
- 7) Railway company notifies Transport Canada and informs the municipality within 30 days that it has arranged to have train whistling ceased at the crossing(s).
- 8) Municipality and the railway company share the responsibility for monitoring and maintaining the safety conditions that support the cessation of train whistling at the crossing(s).

As part of this process, a detailed safety assessment of the at-grade railway crossings is required by Transport Canada and forms the critical component for whistle cessation consideration.

Whistle Cessation Documentation and Safety Review

CIMA+ reviewed the following documentation and safety impacts concerning whistle cessation:

- Federal Railroad Administration – Nationwide Study of Train Whistle Bans (April 1995)
- Town of New Tecumseth – Train Whistle at Public Crossings (November 7, 2016)
- The Municipality of Clarington – Train Whistling at Bennet Road and Cobblehill Road (May 29, 2017)
- City of Markham – Anti-whistling on Stouffville GO Line and Anti-Whistling By-Laws and Associated Liability (October 2, 2015)
- City of Markham – Train Anti-Whistling (2019)

Based on the review, the following is a list of the most common findings, issues, safety impacts and liability/insurance implications associated with whistle cessation implementation at at-grade crossings.

- Approximately 50% of vehicle/train collisions occur at crossings with active warning devices (barrier gates, flashers, bells), indicating the need for the additional measure to reduce accident rates (i.e., train whistling).
- Without train whistling, motorists, cyclists, pedestrians, farm vehicles and other road users may be unaware of the proximity of trains, or the direction of the train's travel.
- Common accidents at crossings with whistle cessation involve vehicles going around or through grade crossing gates or failing to clear the crossing before the train's arrival.
- Based on the Federal Railroad Administration's Nation Study of Train Whistle Bans that included 1,222 crossings, during a 5-year period (1989 to 1993), the crossings with whistle cessation implemented experienced 84% more accidents than crossings without whistle cessation.

Whistle Cessation Liability and Insurance Implications

- Based on current requirements by the railway authorities, the Town will be required to enter into insurance and indemnity agreements with the railway authority and obtain liability insurance to protect both the Town and the railway company against third party claims for bodily injury and property damage resulting from or connected with whistle cessation at the affected crossing(s).
- The Town is liable for any possible incidents within the railway corridor located within municipal boundaries, where the whistle cessation is in effect.
- The Town will incur additional costs to defend any allegations of liability for all incidents in the railway corridor where the whistle cessation is in effect.
- Claims that arise from railway incidents associated with whistle cessation will have a negative impact on the Town's claims record and future negotiations of the Town's Liability Insurance premiums.

Implementation Cost of Whistle Cessation

CIMA+ has indicated that if a decision is made to pursue whistle cessation, the Town should implement all improvements (including those identified as "Recommended" and "Additional") as presented in Attachment 1. Major improvements required include, but may not be limited to the following:

15 Side Road at 26.63 mile (CN):

- Install a warning system with barrier gates on the Sixth Line approach.
- Reconstruct the road to flatten the grades of road approaches.

Fourth Line at 33.54 mile (Metrolinx)

- Reconstruct the road to flatten the grades of road approaches.

Halton Region's Acton Wastewater Treatment Facility at 34.85 mile (Metrolinx)

- Install a warning system with barrier gates. If the Town pursues whistle cessation, the Town will be responsible for the cost of the installation of the warning system and barrier gates.

Eastern Avenue at 35.48 mile (Metrolinx)

- Install a sidewalk with maze barriers.

Main Street North at 36.20 mile (Metrolinx)

- Interconnect the future traffic signal (MTO) with the warning system.

Trespassing is a major issue along the Metrolinx's Kitchener line. The review by CIMA+ included areas located 0.4 km on each side of the railway crossings. During the site visits, clear evidence of trespassing was identified near Eastern Avenue, Mill Street East (Hwy 7) and Main Street North. In addition, staff have identified other established trespassing locations in both Acton and Limehouse using the Town's GIS aerial photos.

As per Section 104 (c) of the Grade Crossing Regulations, the area within the railway right-of-way and 0.4 km on each side of the crossing surface must not have repeated incidents of unauthorized access within the rail corridor.

Based on the initial review and assessment, the total estimated cost for the identified improvements required to implement the whistle cessation is \$405,000 for CN's Halton-Subdivision and \$1,827,000 for Metrolinx's Kitchener Line.

The Town's share of the estimated costs is approximately \$285,000 and \$1,562,000 for the CN and Metrolinx improvements, respectively. It is anticipated that the annual operating cost to monitor, inspect and repair the additional infrastructure will be approximately \$150,000 (excluding any potential insurance premium increases).

The costs presented above are based on the initial assessments. Additional improvements may be required and/or warranted based on the final, detailed assessments that would be required by Transport Canada and the risk tolerance of the Town. Cost estimates for the required improvements associated with whistle cessation are conceptual and will require further revision based on future assessments, engineering designs and negotiations between the Town and railway authorities.

Whistle Cessation Consideration at Town's Railway Crossings

Whistle cessation reduces road safety at the railway crossings traversing the Town's roads for motorists, cyclists, pedestrians, farm vehicles and other road users. Although the minimum requirement to provide safety measures for trespassing is 400 metres on each side of the railway crossing. It is evident that the trespassing issues extend well

beyond that distance and the majority of the railway crossings will require improvements to be completed at the Town's cost, should whistle cessation be considered.

Based on the information presented in this Report including the initial assessments, estimated costs and additional liabilities, Staff do not recommend pursuing the implementation of the whistle cessation at any at-grade railway crossings on roadways under the jurisdiction of the Town at this time.

RELATIONSHIP TO STRATEGIC PLAN:

The recommendations of this Report support the Strategic Plan priority area of Transportation and the focus area of Traffic Safety.

FINANCIAL IMPACT:

The cost to implement the mandated improvements to conform to the Transport Canada's Grade Crossing Regulations and Guidelines is approximately \$167,500 (\$97,850 Town's share). Sufficient funding to complete these works have been included within the Town's Operating and Capital Budget. All Mandatory works will be completed by November 2021.

Should Council decide to implement Whistle Cessation, the Town's share of the estimated construction cost is approximately \$1,850,000. It is anticipated that the annual operating cost to monitor, inspect and repair the required infrastructure will be approximately \$150,000 (excluding any potential insurance premium increases).

CONSULTATION:

The Acting CAO, Commissioner of Transportation and Public Works, Staff within Corporate Services, and the Town's external legal Counsel and Insurer were consulted in the preparation of this Report.

PUBLIC ENGAGEMENT:

The Report will be posted on the Town's website.

SUSTAINABILITY IMPLICATIONS:

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life.

The Report's recommendations advance the Strategy's implementation.

This Report supports the Social Well-being pillar of Sustainability and in summary the alignment of this Report with the Integrated Community Sustainability Strategy is very good.

COMMUNICATIONS:

Staff will inform Canadian National Railway (CN), Metrolinx, Halton Region and the Ministry of Transportation of Ontario (MTO) with regard to the Transport Canada's requirements within their respective right-of-ways.

CONCLUSION:

Based on the detailed safety assessment completed by CIMA+, Staff will continue to implement the required safety improvements to meet the Transport Canada requirements as indicated in Attachment 1, by the November 28, 2021 deadline.

With regard to whistle cessation, Staff is of the opinion that the cessation of whistling reduces road safety at the railway crossings traversing the Town's roads for motorists, cyclists, pedestrians, farm vehicles and other road users. The trespassing issues identified outside of the crossing study areas pose significant issues.

Staff are recommending to Council that the Town does not implement whistle cessation on any railway crossings within the Town's jurisdiction due to road safety, trespassing issues, insurance and liability risks.

Reviewed and Approved by,



Maureen Van Ravens, Director of Transportation



Bill Andrews, Commissioner of Transportation and Public Works



Chris Mills, Acting Chief Administrative Officer