

Staff Report



To	Committee of the Whole
Service Area	Infrastructure, Development and Environment
Date	Tuesday, March 4, 2025
Subject	Vision Zero Action Plan

Recommendation

1. That Vision Zero Guelph – Action Plan for Safe Streets, included as Attachment-1, to the Infrastructure, Development & Environment Report 2025-12, dated March 4, 2025, be approved.
 2. That the Community Safety Zone Policy, included as Attachment-3, to the Infrastructure, Development and Environment Services Report 2025-12, dated March 4, 2025, be approved and in effect as of July 1, 2025.
 3. That staff be directed to bring forward a revised Traffic By-law, including Community Safety Zones and speed limits in preparation for future automated enforcement programs, as outlined in report Infrastructure, Development and Environment 2025-12 dated March 4, 2025.
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Executive Summary

Purpose of Report

This report summarizes the Vision Zero Guelph - Action Plan for Safe Streets *Action Plan* containing 68 cross-departmental actions that support the City's goal of reaching zero serious injuries and fatalities on Guelph roads. This report also provides background information regarding the recommendation to advance specific Vision Zero actions, including the expansion of Community Safety Zones (CSZ) and the Automatic Speed Enforcement (ASE) camera program.

Key Findings

In 2022 through approval of the Transportation Master Plan, council endorsed Guelph adopting a Vision Zero policy. Vision Zero is prioritized in Guelph's Strategic Plan and Community Plan. Since council endorsement, staff have worked to create a Vision Zero team and associated Action Plan. The Action Plan identifies existing City of Guelph plans, policies, and guidelines, and lists emerging practices and initiatives which are guided by Vision Zero principles and a Safe System approach to support the City's goal of reaching zero serious injuries and fatalities on Guelph roads.

The Action Plan was developed by Transportation Engineering staff, with support from various City of Guelph departments and the City of Guelph's Vision Zero Steering Committee. The Action Plan also contains messages of support from the Medical Officer of Health from Wellington-Dufferin-Guelph Public Health, the Chief

of Police from Guelph Police Service, and the Ministry of Transportation's Public Outreach & Education Office.

The Action Plan uses the first municipal High-Risk Network in Canada to help identify where improvements are needed and describes 68 actions, of which one is to expand the CSZ designation, and another is to expand the ASE camera program based on proven effectiveness. It is recommended that the CSZ designation encompass all primary and secondary schools, post-secondary education centres, major health centres and hospitals, as well as roads identified as having a high risk of serious injuries and fatalities due to vehicle collision according to the High-Risk Network.

The province currently prohibits the use of ASE within areas that have Flashing 40 km/h speed limits. As part of the Action Plan, staff plan to replace Flashing 40 speed limits with static 40 km/h speed limits within school zones on arterial roads for these school zones to be eligible for ASE.

As the actions are delivered, staff will track improvements to road safety through a number of key performance indicators that will provide insight into future versions of the Action Plan.

Strategic Plan Alignment

The proposed Vision Zero Guelph – Action Plan for Safe Streets supports the make it easier to get around objective of the City Building theme of the Future Guelph Strategic Plan and specifically the *Support Vision Zero initiatives to enhance road safety* sub-objective.

Future Guelph Theme

City Building

Future Guelph Objectives

City Building: Make it easier to get around

Financial Implications

There are no direct financial implications associated with approval of the Action Plan. Capital investments in road safety are included in the confirmed 2025 capital budget and 2026 to 2034 capital forecast. The Transportation Reserve Fund #164 is used as a source of funding for these initiatives. The proposed expansion of the ASE program beginning in August 2025 continues to be budgeted to be revenue neutral. If any revenues in excess of costs are generated from the ASE program, they will be transferred to the Transportation Reserve Fund #164.

Report

[Vision Zero](#) is a road safety strategy to reduce the number of people killed and seriously injured on roads to zero. The City of Guelph endorsed Vision Zero as part of approving the [Transportation Master Plan](#) (TMP) in 2022, which supports the creation of a planning document that aligns with Vision Zero principles and builds upon the existing [Community Road Safety Strategy](#).

This planning document, named the Action Plan, seeks to introduce Vision Zero and its related Safe Systems approach, offers an overview of relevant and local collision and public health findings, and lists cross-departmental actions that the City of

Guelph will take to meet its commitment of reaching zero serious injuries and fatalities on its roads. The Action Plan is listed as Attachment-1 Vision Zero Guelph – Action Plan for Safe Streets.

The Action Plan begins with an overview of the current state of road safety in Guelph. Between 2018 and 2022, there were 89 serious injuries, and 12 fatalities reported on Guelph roads due to collisions with vehicles. During this same five-year period, there were 1,430 collisions causing injury in Guelph, resulting in \$460 million in societal costs. These societal costs include factors like healthcare, missed work, vehicle damage, and time and pollution due to traffic delays.

Vision Zero and the Safe System approach

The concept of Vision Zero was first introduced in Sweden in 1997 and has proven to be very successful in reducing collision-related deaths worldwide. Today, Vision Zero has been widely adopted around the globe and is endorsed by 25 cities across Canada. Vision Zero requires a change in how we think about road safety.

Vision Zero is built on these principles:

1. No loss of life is acceptable on our roads. Protecting people must take priority over all other aspects of our transportation system.
2. Deaths and serious injuries are preventable. We have the knowledge, expertise, and tools to anticipate and prevent all injury-causing collisions.
3. Everyone makes mistakes. Roads should be designed to account for human error and minimize harm.
4. People are vulnerable. Collisions may happen, but the impact should never exceed what our fragile human bodies can withstand.

Vision Zero is guided by the Safe System approach which directs our attention towards a new way of understanding and addressing road safety that accounts for all road users and proactively addresses risk.

Table 1- Traditional approach versus Safe System approach

Traditional approach	Safe System approach
Prevent collisions.	Prevent serious injuries and deaths.
Make driving safer.	Make transportation safer for all.
Improve human behaviour.	Design for human mistakes, limitations, and differences.
Control highest speeds.	Control impact.
React based on collision history.	Proactively address risk.
Individuals are responsible.	Shared responsibility.

Public health guidance

The Action Plan is guided by epidemiological relationships proposed by leading road safety and public health researchers:

- Globally, the rate of collision-related fatalities per capita tends to increase with the per capita rate of annual vehicle-kilometres travelled.
- Across North America, certain communities face higher levels of exposure to moving vehicles which increases their risk of collision-related injuries and fatalities. These include racialized groups, people with lower incomes, those who are unhoused, and people with disabilities.

- Vehicle speed predicts the survival rate of those impacted by a collision. If a person walking is struck by a person driving a vehicle at 30 km/h, they have a 90 per cent chance of survival. If the vehicle is moving at 50 km/h, the survival rate of the person walking drops dramatically to 15 per cent.
- Road safety actions are most effective if they reduce and prevent the transfer of kinetic energy to the greatest number of people in ways that require little or no individual effort. This public health framework is called the Safe Systems Pyramid.

Guelph data

- The Action Plan provides an in-depth analysis of Guelph’s collision data from a 5-year period between 2018 and 2022, while also noting other long-term data trends. As there can be lag between when a collision occurs and when it is recorded by City staff, data from 2023 was considered incomplete at the time of analysis. All 2023 and 2024 collision data are publicly available on the City’s [Vision Zero](#) webpage.
- Between 2018 and 2022, the total number of reported collisions was 9,392. The total number of people killed and seriously injured due to these collisions was 101, of which 83 per cent occurred on just 10 per cent of Guelph’s roads.
- Between 2002 and 2022, all injuries and fatalities due to collisions have decreased for drivers but have not shown the same reduction for other road users. While only 12 per cent of Guelph’s residents walk, bike, or use motorcycles for their daily commute, these modes account for 63 per cent of all serious injuries and deaths that occurred between 2018 and 2022.
- Most collision-related serious injuries occurred on arterial roads. Among collisions that involved people walking, 63 per cent happened on arterial roads, while these same roads made up only 23 per cent of Guelph’s road network.
- 72 per cent per cent of all collisions in Guelph happen at intersections, as do most collisions involving people who were walking, biking, or using a motorcycle. Half of all injuries to people who were walking occurred due to a vehicle making a left turn.
- The mortality rate for pedestrians and cyclists impacted by transportation-related injuries is highest among those aged 75 years and older.

Focus areas

The Action Plan names eight focus areas that contain a total of 68 cross-departmental road safety actions. The full list of actions, along with timelines and deliverables for each, are included in the Appendix section of Attachment-1.

The focus areas are as follows:

1. Plan better ways to grow
2. Identify risk
3. Protect vulnerable people
4. Design safe streets
5. Reduce speeds
6. Be data driven
7. Work together
8. Learn together

High-Risk Network

The Action Plan contains Guelph's High-Risk Network (Attachment-2), the first map of its kind in Canada. The High-Risk Network evaluates every kilometre of Guelph's street network according to risk factors that increase frequency and severity of collisions causing serious injuries and deaths. By doing so, the High-Risk Network can identify and address roads with the highest level of risk which will help to prevent collision-related injuries and fatalities. The High-Risk Network is described in more detail in Attachment-1. It helps direct 10 of the 68 actions in the Action Plan and is an integral component of the Community Safety Zone Policy described in this report.

Key Performance Indicators

While achieving zero serious injuries and deaths is the ultimate goal of the Action Plan, there are several other Key Performance Indicators that were chosen to measure the Action Plan's effectiveness and success:

- Annual number of people killed/seriously injured as a result of a motor vehicle collision per 100,000 population
- Percentage change in vehicle speeds along the High-Risk Network
- Number of road safety audits performed per year
- Number of safety improvements installed on the High-Risk Network per year
- Resident awareness of Vision Zero
- User perception of safety by modality

CSZ and ASE Background

In 1998, Bill 26 Highway Traffic Act Amendment was passed by the Ontario Legislature to promote public safety through the creation of CSZs. The amendment describes that the council of a municipality by-law designates a part of a highway under its jurisdiction as a CSZ, if in the Council's opinion, public safety is of special concern. In any highway designated as a CSZ, fines associated with HTA violations are doubled.

A school zone is an area of road close to a school; school zones are designated by municipal by-laws. Typically, there are reduced speed limits (either during certain times of the day or 24/7) within 150 metres of a school. In 2017, the province introduced Bill 65 Safer School Zones Act that allowed municipalities to designate area by-laws where the speed limit can be lower than 50 km/h. It also permitted municipalities to implement ASE programs in CSZs where the speed limit is less than 80 km/h and in designated school zones where a flashing 40 km/h speed limit is not in effect.

In 2022, in preparation for future ASE programs, Guelph City Council revised the Traffic By-law to include 57 CSZ designations overlaying every elementary school zone: 46 are with school zones of 30km/h; and 12 are school zones with a flashing signage of 40km/h. Due to provincial regulations ASE programs are unable to be implemented in flashing 40 km/h school zones.

In August 2023, ASE camera program began operating in four CSZ locations. Staff have determined that the presence of ASE cameras encouraged a positive change in drivers' behaviour, resulting in an average speed reduction of 20 per cent or 9 km/h. Therefore, as part of the action plan, staff will be working towards updates to

the Traffic By-law that removes flashing 40km/h school zones and replaces them with CSZs to allow for future ASE at these locations.

Community Safety Zone Policy

While the City of Guelph has directed the use of CSZ designations to encompass school zones, no policy identifies where public safety is of special concern outside of these areas. Accordingly, and following the endorsement of Vision Zero and its Safe System approach, a CSZ Policy was developed to systematically identify areas of special concern, namely the roads with a high risk of collision-related serious injuries and fatalities.

Collision-related serious injuries and fatalities due to vehicle collisions are consistently found outside of school zones, and as such, warrant consideration as CSZs. Based on the collision analysis performed in Guelph detailed in Attachment-1, the majority of these collisions occurred on arterial and collector roadways. These roads see high vehicle volumes and high vehicle speeds as compared to local residential roads – both proven risk factors which increase the likelihood of collision-related injuries and fatalities.

In addition, the collision analysis confirmed that there is a heightened risk for vulnerable road users, especially people who walk, cycle, use motorcycles, or use mobility aids, as well as older populations. However, no high volume or high vehicle speed roads, or roadways with a higher concentration of vulnerable road users listed, form part of Guelph's existing CSZs, and as such, none of its associated measures such as ASE cameras can be applied on these roads until a CSZ designation is approved by council.

In response to these needs, staff developed a Community Safety Zone Policy, Attachment-3, to identify criteria to establish CSZs outside of school zones while systematically prioritizing roads with a high risk of collision-related serious injuries and fatalities. In doing so, City of Guelph will be one of the first municipalities in Ontario to expand its CSZ designation outside school zones.

Guelph's CSZ Policy, guided by the High-Risk Network, establishes criteria to review all of Guelph's roads for the potential CSZ designation. A CSZ designation is now recommended for all primary and secondary schools, all educational institutions, and all major healthcare and hospitals. In addition, High-Risk roads according to the High-Risk Network, which are near to community facilities, such as community centres, will now be reviewed for potential CSZ designation according to the CSZ Policy.

Guelph's CSZ Policy was developed following a jurisdictional scan of 12 Ontario municipalities, and mirrors most closely the CSZ warrant criteria proposed by the City of Toronto and the Region of Waterloo. The City of Toronto CSZ warrant criteria, with its focus on identifying higher volume roads near community facilities, was seen as the most appropriate warrant criteria to match given the City of Guelph's goal of prioritizing and addressing roads with highest risk.

As a foundational policy, the impact of the CSZ Policy will be closely monitored and reviewed every 5 years.

Flashing 40 km/h Speed limits

There are 12 existing school zones with flashing 40 km/h speed limits in effect during school arrival and dismissal time. The Province of Ontario does not permit

ASE operation within these flashing 40 km/h zones. As these school zones are on arterial roadways, which have been proven to have higher risk, staff propose to convert all flashing 40 km/h zones to static (24 hours a day/7 days a week) 40km/h speed zones.

Once approved by Council, all flashing 40 km/h school zones will be converted to static 40km/h school zones during July and August 2025, while school is out. Staff will be given one full year to allow for driver behaviour changes before any of these zones will have ASE implemented. These zones will therefore be eligible for ASE beginning the 2026/2027 school year.

Automated Speed Enforcement Expansion

As part of the 2025 operating budget confirmation, the ASE program is expanding from four cameras to twelve cameras beginning August 1, 2025. Currently the City operates four mobile ASE cameras that rotate throughout existing community safety zones every three months. By the end of the 2024/2025 school year, an ASE will have been placed at each elementary school where it was feasible to do so.

For the 2025/2026 school year, the twelve ASE cameras will continue to rotate through elementary school zones on non-arterial roads either on a four- or six-month rotation.

In August 2026, locations that have a new CSZ or had the flashing 40km/h speed limit replaced with a static 40km/h speed limit will be eligible for ASE. Staff will use a combination of mobile, semi-permanent and permanent cameras.

- Mobile Cameras: Four mobile cameras will continue to rotate through elementary school zones on lower volume local and collector roadways on a four-month rotation.
- Semi-Permanent Cameras: Four cameras will rotate through eight CSZ fixed locations every six months. These locations will be within higher risk areas.
- Permanent Cameras: Four cameras will be installed at permanent, fixed locations within CSZ in areas of highest risk.

This deployment using a combination of camera types will broaden the coverage area of the city, thereby increasing the likelihood of drivers obeying posted speed limits.

Financial Implications

There are no direct financial implications associated with approval of the Action Plan. Capital investments in road safety are included in the confirmed 2025 capital budget and 2026 to 2034 capital forecast. The Transportation Reserve Fund #164 is used as a source of funding for these initiatives. The proposed expansion of the ASE program beginning in August 2025 continues to be budgeted to be revenue neutral. If any revenues in excess of costs are generated from the ASE program, they will be transferred to the Transportation Reserve Fund#164.

Consultations and Engagement

Staff created a public survey in order to inform appropriate Vision Zero actions and communication strategies. The survey asked Guelph residents to indicate their current awareness of Vision Zero, their feeling of safety by mode of travel and their attitudes toward road safety issues. In total, 1,021 survey responses were captured representing 600 telephone survey responses and 421 online survey responses. A

summary of the survey results is included in Attachment-4, Engagement Report – Vision Zero Survey.

Attachments

Attachment-1 Vision Zero Guelph – Action Plan for Safe Street

Attachment-2 High-Risk Network

Attachment-3 Community Safety Zone Policy

Attachment-4 Engagement Report – Vision Zero Survey

Attachment-5 Vision Zero Action Plan Presentation

Departmental Approval

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