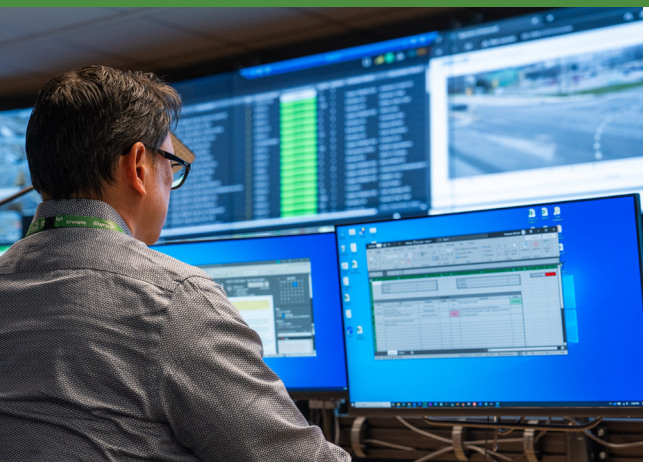

# 2024

## Halton Region
# Transportation Progress Report

Halton Region

# Executive Summary

Halton Region is committed to strategic investments that enhance transportation options and ensure infrastructure remains in optimal condition. The 2024 Transportation Progress Report provides an overview of activities related to the operation and maintenance of the Regional Transportation System. The Comprehensive Road Safety Action Plan (CROSAP), Drive SAFE (Safety Awareness For Everyone) initiative and other safety programs and initiatives continue to provide improvements for all road users. In comparison to previous years, traffic volumes rose in 2024 but Regional road infrastructure growth and traffic signal optimization work helped us provide consistent service levels.

Halton Region continues to follow Provincially regulated maintenance standards and reviews pavement and traffic conditions regularly to support a safe and efficient travel experience across the Regional Road Network. While the overall system functions well, it is recognized that certain key corridors may experience localized congestion and operational challenges during peak hours. These areas remain a focus for ongoing monitoring, improvement planning, and strategic investment to meet the needs of the growing Halton community.


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# 1. Introduction

## 1.1 Purpose

The Region's Road Operations team continues to review the performance of Halton's Road network to:

- maintain a safe and efficient road system;
- identify existing and future capacity issues;
- identify opportunities for improvement to safety and service levels; and
- evaluate state-of-good repair requirements.

Halton completes annual programs to ensure Regional Roads are operating in the safest, most efficient manner possible, and that the service life of Halton's infrastructure is optimized. Consistent with these objectives, staff consistently monitor the overall performance of the Regional Road Network and to provide annual updates to Regional Council.

The purpose of the annual Transportation Progress Report is to provide a summary of the network's performance and highlight key achievements in the operations and maintenance of the network. Key performance indicators provided in the report will facilitate tracking of the overall condition of the Regional Road Network to be tracked and measured over time.

Continued monitoring of the transportation network will support informed decisions on future improvements and when they should be implemented.

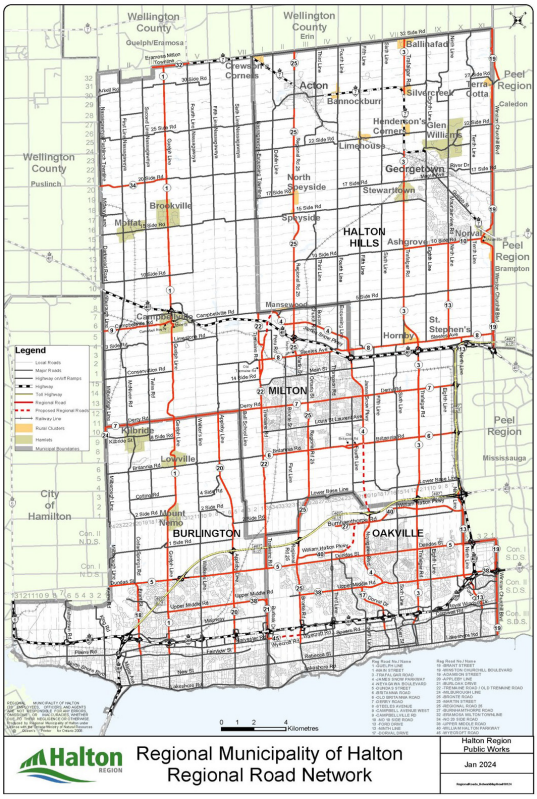
## 1.2 Background

The 2024 Transportation Progress Report provides an update and summary of the activities completed to ensure the Regional Road Network operates safely and efficiently.

## 1.3 System Profile

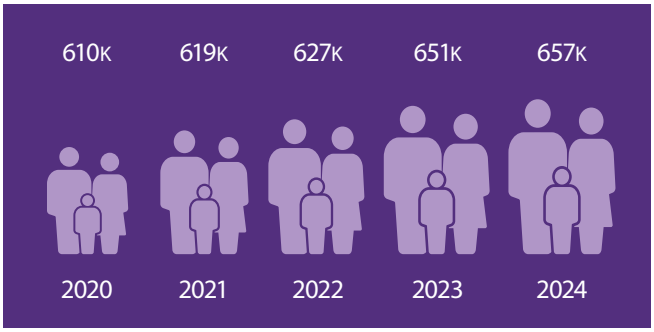
The Regional Road Network in Halton (2024) is shown in Figure 1 below.

**Figure 1 - The 2024 Regional Road Network (See Appendix A for more detail)**




# 2. Halton Region 2024 statistics

## Population

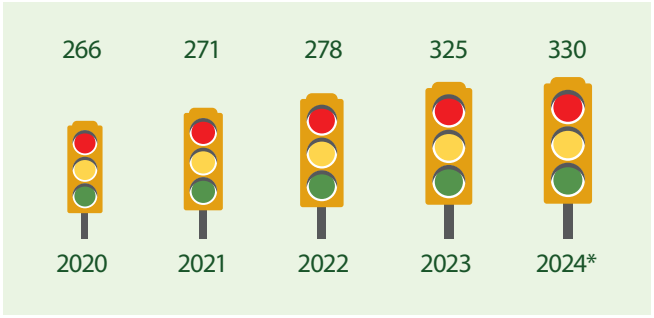



## Lane-km

1,154 1,159 1,159 1,171 1,209

2020 2021 2022 2023 2024

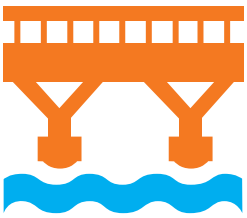
## Signalized Intersections on Regional Roads




*287 Signalized intersections are Regionally owned

## Surface area (sq km)

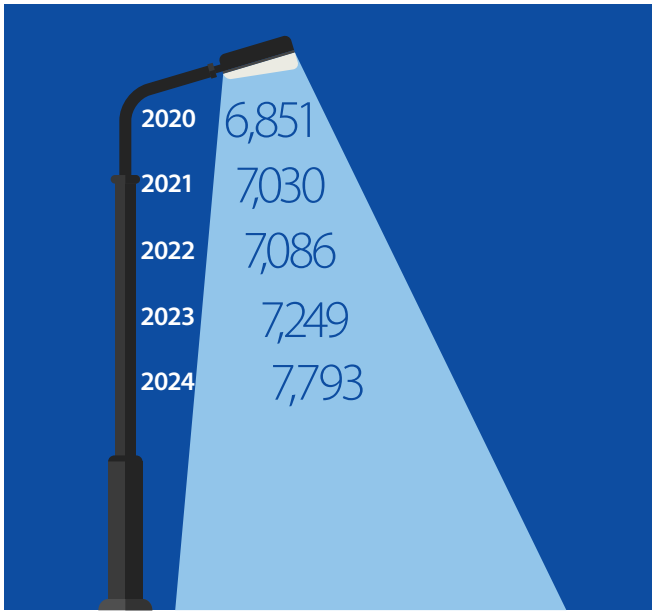
969 km$^2$



## Bridges/Major Culvert Structures (greater than 3m)

183

## Street lights




## On road active transportation facilities (km)

**93** Lane km of **ON-ROAD DEDICATED BIKE LANES**

**148** Lane km of **OFF-ROAD MULTI-USE TRAILS**

**226** Lane km of **ON-ROAD PAVED SHOULDERS**

**148** Lane km of **OFF-ROAD SIDEWALKS**

# 3. Road Safety

The Regional Road Network consists of major and minor arterial roads. These arterial roads facilitate through-traffic and have limited driveway access. They typically carry high traffic volumes and accommodate all types of vehicles, including bicycles, passenger cars, and heavy trucks. Traffic flow on arterial roads is designed to be mostly uninterrupted, with stops only at traffic signals and crosswalks.

A key goal in managing this network is ensuring traffic moves safely. This section outlines the Region's road safety programs, projects, and initiatives.

Halton's Traffic Operations and Safety team continuously monitors the Regional Road Network to promote the safe and efficient movement of people and goods. They focus on ongoing maintenance and improvements, regularly assessing road performance to enhance safety and reduce delays.

For over 20 years, Halton has actively implemented numerous measures to maintain and improve the safety and efficiency of transportation across the region.

## 3.1 Halton Region's Road Safety Strategy

Halton Region has adopted an enhanced, evidence-based road safety program designed to reduce the risk of fatal and serious injury collisions on Regional roads. This proactive strategy reflects our commitment to continuous improvement and supports the development of a safe, efficient, and well-managed transportation network.

The following graphic outlines the key components of Halton's comprehensive road safety program:

- Comprehensive Road Safety Action Plan (CROSAP)
- Red Light Camera
- Drive SAFE public awareness program
- Safe System Engineering

**The Comprehensive Road Safety Action Plan (CROSAP)** is a three-step process used to improve road safety in the Region:

1. **Network Screening:** Intersections and road segments are analyzed and ranked using a "Potential for Safety Improvement" (PSI) index, which is based on collision history, traffic volume, and updated safety performance models developed in 2023.
2. **Diagnostic Review:** The highest risk locations are reviewed through detailed safety assessment, and potential solutions are identified and e valuated using cost-benefit analysis.
3. **Implementation of Solutions:** Feasible safety improvements are implemented, often alongside planned infrastructure upgrades, to maximize impact and cost efficiency. Funding is provided through the Regional capital budget.

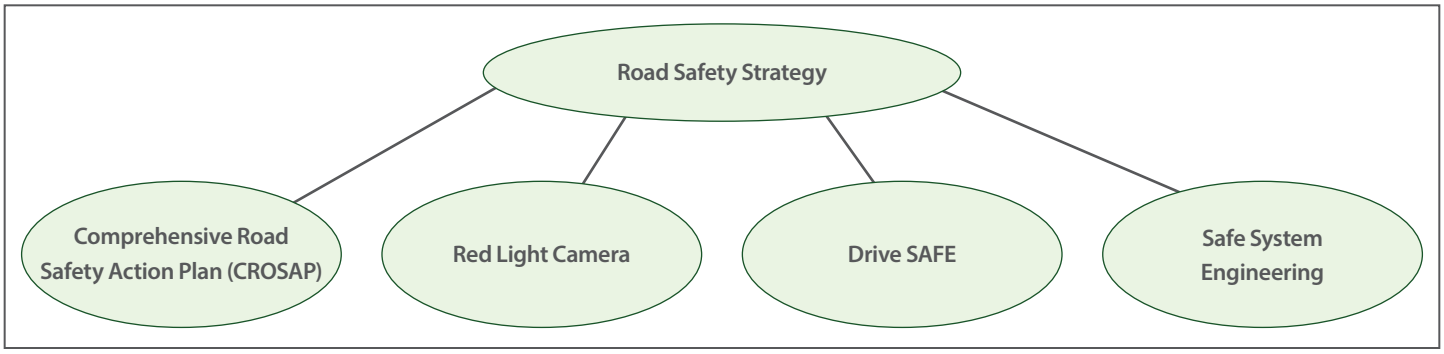
**Red Light Camera Program** is an automated enforcement system installed at intersections to detect and photograph vehicles that enter the intersection after the traffic signal has turned red. The system captures images of the vehicle's license plate, date, time, and location of the violation. These details are used to issue a ticket to the registered owner of the vehicle.

Red light cameras aim to improve road safety by discouraging drivers from running red lights, a common cause of serious collisions at intersections. They operate continuously helping to enforce traffic laws even when police officers are not present.

Halton Region has participated in the provincial **Red Light Camera Program** since 2012 and has 23 red light cameras operating at Regional signalized intersections.

**Drive SAFE (Safety Awareness for Everyone)** is Halton Region's public awareness initiative focused on addressing speeding, aggressive driving, and other unsafe behaviours on our roads. The program promotes safe driving habits through a variety of outreach tools and communications, including:

- Media publications
- Social media messaging
- Campaigns in partnership with Halton Regional Police



- Speed feedback signs
- Portable variable message sign (PVMS) trailers

**Safe System Engineering** Across the transportation sector, there has been a growing shift toward holistic road safety strategies that recognize the need to design systems that protect people , which aims to eliminate fatal and serious injury collisions by prioritizing human life and acknowledging human fallibility.

Building on these foundational principles, Halton Region has adopted an enhanced, evidence-based approach tailored to our local context. This includes Safe System Engineering - a design philosophy that embeds safety into every aspect of the transportation network, rather than relying solely on individual driver behaviour or enforcement.

This approach focuses on:

- Reducing the risk of crashes by designing safer roads and intersections
- Minimizing harm when collisions do occur
- Managing vehicle speeds to match the level of protection offered by road infrastructure
- Separating users like drivers, cyclists, and pedestrians where appropriate
- Promoting predictability and clarity through signage, signal design, and layout

Together with our **Comprehensive Road Safety Action Plan (CROSAP**) and a suite of other safety programs, Halton's strategy offers a practical and progressive framework for delivering a safer and more resilient Regional Road Network.

The table below illustrates how Halton Region's current strategy aligns with modern safety best practices.

## Figure 2 – Halton Region's Road Safety Strategy

| Previous Industry Practices | Halton Region Programs - CROSAP & Other Safety Programs |
|---|---|
| Responsibility to prevent crashes, injuries and deaths rests with individuals. | Halton Region seeks to prevent crashes, injuries, and death by addressing the root causes with the transportation system design and recommends changes to the existing design as needed. Road design incorporates features such as high friction pavement, guiderails, and left-turn offsets. |
| Focuses on what causes 'accidents'. | Through a combination of Education, Engineering, and Enforcement, Halton seeks to affect driver behaviour to encourage safe driving. |
| Allows individual errors to kill and harm. | Fatal and serious injury collisions are investigated if individual failures in the road system contributed to the collision and to determine measures to eliminate failure. |
| Majority of the problem is people and not driver error. | Halton seeks to prevent crashes, injuries and death by addressing root causes with transportation system design and recommends change to the existing design as needed. Speed limits are reviewed annually and monthly enforcem ent is coordinated with Halton Regional Police. |
| Studies the effects of single road safety interventions one at a time. | As part of the Regional Traffic Operations and Safety Study, Halton undertook a Region-wide visual inspection of deficiencies that are programmed for upgrades as part of upcoming capital works. Halton undertook a Region-wide review of vulnerable land uses to designate over a dozen Community Safety Zones. |
| Can only justify making improvements based on a cost-benefit analysis. | Halton recognizes motor vehicles are being manufactured with increased safety features. Halton also recognizes and continues to make continued improvements to the road system. |
| Only works on problems with large number of collisions. | Improvements to enhance safety are considered during routine operating maintenance and capital construction projects. Routine road patrol identifies and remove risks to the Regional road network as they emerge. |
| Believes in the need for further "study" - waits for crashes and coroner report to identify problems. | The Region-wide visual inspection was a proactive review to identify and recommend corrective action to deficiencies. |
| Ignores exposure to the motor vehicle as an injury risk factor. Ignores the carbon and pollution by-products of transportation. | Halton Region considers and incorporates active transportation facilities in road construction projects. These improvements include multi-use paths/trails, on-street cycling facilities, and enhanced separation between the sidewalk and road. |

## 3.2 Halton Region's Road Safety Strategy Performance

Halton Region has made significant investments in road safety over the past two decades, including improvements to signage, pavement markings, traffic signal operations, roadway design, and roadside safety features. More recently enhancements such as pedestrian crossovers, rumble strips, and smart right-turn channels (a right-turn channel designed with a sharper angle of entry to slow vehicles) have been integrated into new capital construction projects to further improve safety and accessibility for all road users. These ongoing efforts are delivering measurable results.

Despite growing traffic volumes driven by rapid population and business growth, collision trends on Regional Roads have steadily declined - a clear indication that the network is becoming safer and more efficient over time.

Figures 3 and 4 below highlight this trend, showing a steady increase in vehicle travel (measured in vehicle kilometres traveled) alongside a consistent decrease in injury and fatal collisions on Regional Roads between 2004 and 2024. This is to show the long term trend of injury & fatal collisions from 2004 to 2024 as decreasing. Although there is fluctuation and increases year over year, the long term linear regression analysis shows collisions are decreasing.

**Figure 3 - Total number of injury and fatal collisions vs. average annual daily vehicle km travelled**

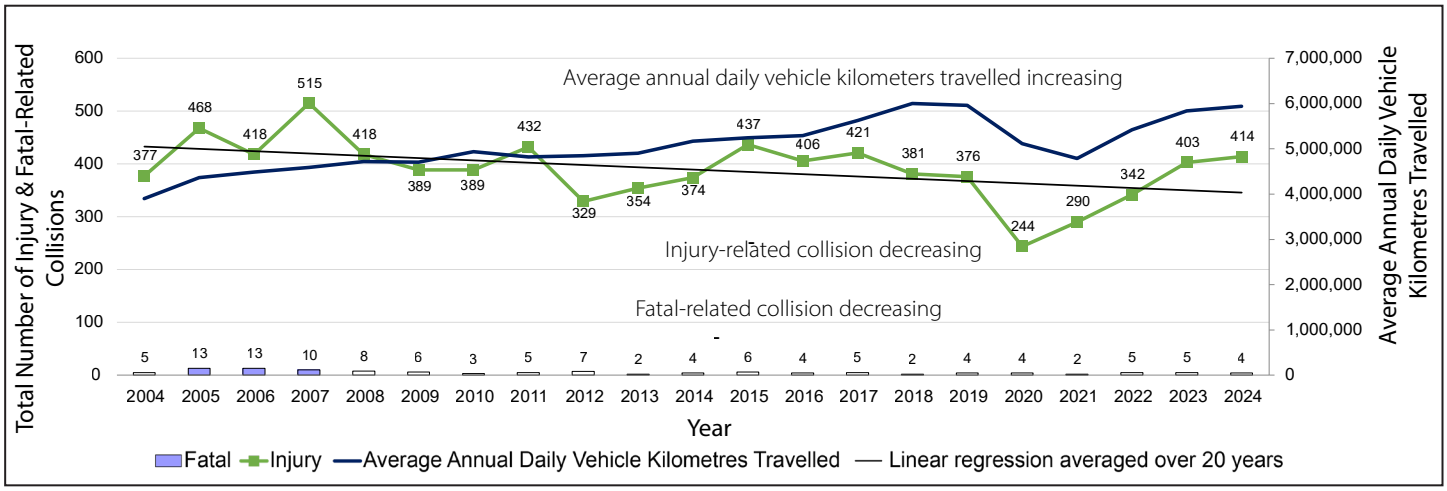
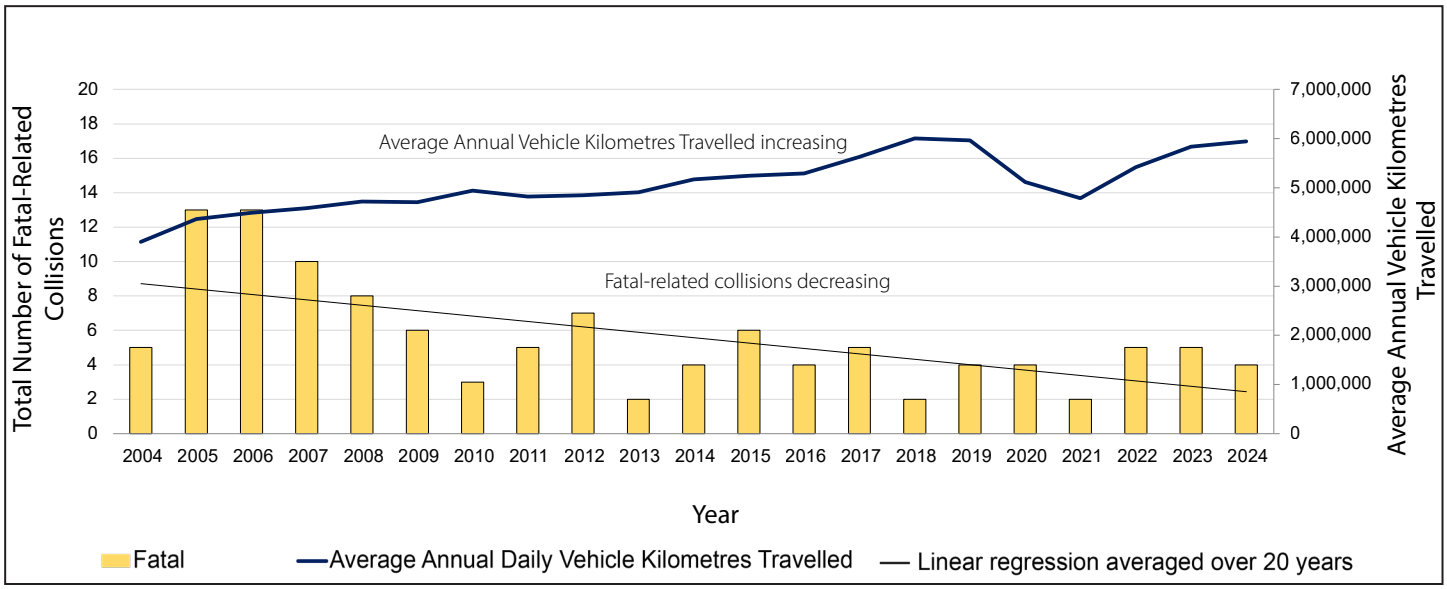



**Figure 4 - Total number of fatal collisions vs. average annual daily vehicle km travelled**



## 3.3 2024 Collision Trends on Regional Roads

In 2024, there were 3,549 reported collisions on Halton's Regional roads - an increase compared to 2023. While this reflects a return to pre-pandemic travel patterns, it's important to view the data in context.

Figure 5 compares key collision indicators from 2019 to 2024. The years 2020 and 2021 are highlighted due to the unusual traffic conditions during the COVID-19 pandemic. When comparing 2024 to 2019 - the last pre-pandemic baseline year - the total number of collisions has risen by 8%. Over the same period, Halton's population grew by 10%, while average annual vehicle kilometres travelled (VKT) across the Regional network decreased slightly by 0.3%.

**Figure 5 – Comparison of collisions, 2019 to 2024**

| Year | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Change (2023 - 2024) |
|---|---|---|---|---|---|---|---|
| Number of Collisions | 3272 | 1998 | 2057 | 2787 | 3267 | 3549 | 10.2% |
| Number of Fatal Collisions | 4 | 4 | 2 | 5 | 5 | 4 | -20% |
| Number of Injury Collisions | 376 | 244 | 290 | 342 | 403 | 414 | 2.7% |
| Number of Property Damage Only or Non Reportable Collisions | 2892 | 1750 | 1765 | 2440 | 2859 | 3131 | 9.5% |
| Number of Collisions Involving Pedestrians | 26 | 19 | 14 | 13 | 25 | 26 [1] | 4.0% |
| Percentage of Collisions Involving Pedestrians Injuries or Fatalities | 77% | 89% | 79% | 85% | 92% | 86% [2] | -6.5% |
| Number of Collisions Involving Cyclists | 29 | 36 | 23 | 25 | 32 | 37 | 12.5% |
| Percentage of Collisions Involving Cyclists Injuries or Fatalities | 66% | 67% | 70% | 56% | 59% | 81% [3] | 37.3% |
| Collision Rate Per 100,000 Population | 566 | 340 | 345 | 456 | 502 | 540 | 7.6% |
| Fatal Collision Rate Per 100,000 Population | 0.692 | 0.68 | 0.335 | 0.797 | 0.768 | 0.609 | -20.7% |
| Day With Highest Number of Collisions | Friday | Friday | Friday | Friday | Wednesday | Wednesday | - |
| Month With Highest Number of Collisions | January | February | November | November | November | December | - |
| Hour With Highest Number of Collisions | 4 to 5 pm | 5 to 6 pm | 4 to 5 pm | 3 to 4 pm | 5 to 6pm | 5 to 6pm | - |
| Most Common Collision Type | Rear End | Rear End | Rear End | Rear End | Rear End | Rear End | - |
| Most Frequently Recorded Improper Driving Action | Following Too Close | Following Too Close | Following Too Close | Following Too Close | Following Too Close | Following Too Close | - |
| Intersection with the Highest Number of Collisions | Brant Street and North Service Road | Guelph Line and Fairview Street | Dundas Street and Appleby Line | Guelph Line and Fairview Street | Upper Middle Road and Appleby Line | Guelph Line and Fairview Street | - |
| Midblock with the Highest Number of Collisions | Britannia Road between Fifth Line and Sixth Line | Regional Road 25 between Britannia Road and Etheridge Avenue | Steeles Avenue between Wilson Drive and Thompson Road | Trafalgar Road between Britannia Road and Derry Road | Trafalgar Road between Leighland Avenue/ Iroquois Shore Road and White Oaks Boulevard, and Trafalgar Road between 5 Side Road and 10 Side Road | Brant Street, between North Service Road and Mount Forest Drive | - |
| Percentage of Collisions Occurring at Intersections | 76% | 79% | 78% | 75% | 73% | 74% | 1% |
| Percentage of Collisions Occurring at Midblocks | 24% | 21% | 22% | 25% | 27% | 26% | -3.7% |
| Percentage of Collisions Occurring During Winter Driving (Snow / Ice Road Surface) Conditions | 11% | 8% | 4% | 7% | 5% | 6% | 20% |
| Population | 597,000 | 610,000 | 619,000 | 627,000 | 651,000 | 657,000 | 0.92% |

## Figure 5 – Comparison of collisions, 2019 to 2024

*[1]Three of 26 collisions were E-scooters.*

*[2] There was 22 pedestrian collisions with non-fatal injuries resulting in two major injuries; 13 in minor injuries; and seven in minimal injuries.*

*[3] There was 30 cyclist collisions with non-fatal injuries resulting in one major injury; 17 in minor injuries; and 12 in minimal injuries.*

*The MTO has three classifications of non-fatal injuries: minimal, minor, and major. A minimal injury collision includes minor abrasions and bruises, which does not necessitate the injured person to go to hospital. A minor injury collision requires medical treatment at a hospital emergency room but does not require hospitalization. A major injury typically involves fractures and internal injuries which requires admission to hospital.*

Figure 5 provides a year-over-year summary of reported collisions on Regional roads from 2019 to 2024, highlighting trends by collision type and severity. This comparison helps illustrate how both collision frequency and severity have evolved over time, while also accounting for the impacts of shifting traffic patterns during and after the pandemic.

To support this analysis, collisions are grouped into three categories based on severity:

- **Property damage only (PDO) and non-reportable (NR) collisions** are the least severe and involve no bodily injuries. These are grouped together for reporting purposes, though NR collisions are typically self-reported at a collision reporting centre, while PDO collisions involve police attendance.
- **Non-fatal injury collisions**, which involve one or more individuals sustaining bodily harm.
- **Fatal collisions**, which are the most severe and result in loss of life.

In 2024, the vast majority of collisions on Regional roads - 3,131 incidents or 88.2% - fell into the PDO/NR category. This was followed by 414 non-fatal injury collisions and 4 fatal collisions. These figures reinforce the importance of the Region's ongoing road safety efforts, which aim to reduce not just the number of collisions, but more critically, the severity of outcomes when incidents occur.

### Figure 6 – Comparison of collision severity by municipality, 2024

| Municipality | Fatal | Non-Fatal Injury | Property Damage Only & Non-Reportable | Total |
|---|---|---|---|---|
| Oakville | 0 | 108 | 1094 | 1202 |
| Burlington | 2 | 131 | 944 | 1077 |
| Milton | 2 | 133 | 830 | 965 |
| Halton Hills | 0 | 42 | 263 | 305 |
| Total | 4 | 414 | 3131 | 3549 |

## Collisions by Municipality

Collision data for 2024 also varies by local municipality. As shown in Figure 6, the Town of Oakville recorded the highest number of collisions on Regional roads, with 1,202 total incidents, including 108 non-fatal injuries. The City of Burlington followed closely with 1,077 collisions, which included two fatalities and 131 non-fatal injuries. In the Town of Milton, there were 965 collisions, also with two fatalities and 133 non-fatal injuries. The Town of Halton Hills experienced the fewest incidents, reporting 305 total collisions and 42 non-fatal injuries, with no fatal collisions reported in 2024.

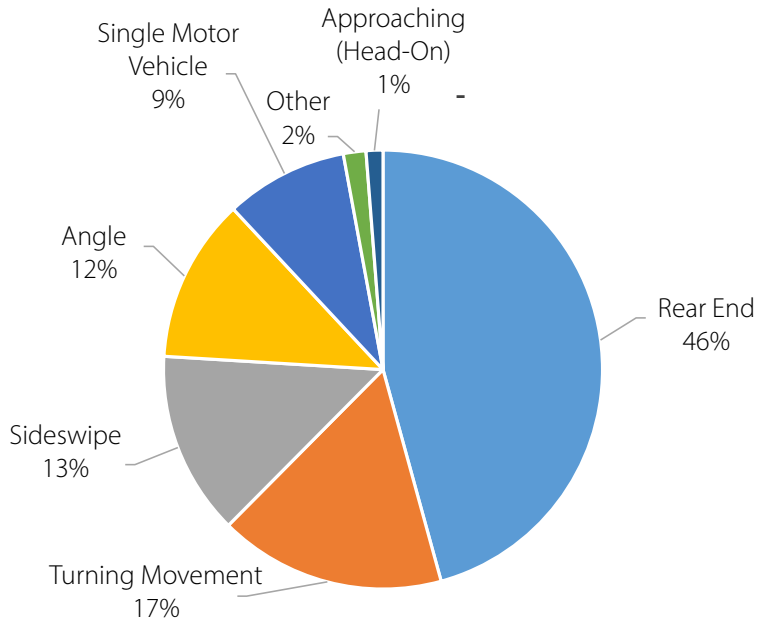
These localized insights help guide targeted safety improvements and support data-driven planning for future road safety investments across the Region.

When comparing collision data with vehicle activity, a clear relationship emerges between the number of collisions and the Average Annual Vehicle Kilometres Travelled (AAVKT) within each municipality. As illustrated in Figure 7, the Town of Oakville, which accounts for 33% of Regional AAVKT, experienced 34% of all collisions, showing close alignment between traffic volumes and collision occurrence.

### Figure 7 – Average annual vehicle kilometres travelled by municipality, 2024

| Municipality | Total Collisions | Proportion of Collisions | AAVKT | Proportion of AAVKT |
|---|---|---|---|---|
| Oakville | 1202 | 34% | 1,979,994 | 33% |
| Burlington | 1077 | 30% | 1,330,263 | 22% |
| Milton | 965 | 27% | 1,699,158 | 29% |
| Halton Hills | 305 | 9% | 936,858 | 16% |
| Total | 3549 | - | 5,946,273 | - |

### Figure 8 - Collision impact types, 2024



Similarly, the Town of Milton represents 29% of AAVKT and experienced 27% of all collisions. In contrast, the City of Burlington experienced 30% of all collisions with only 22% of the AAVKT, while the Town of Halton Hills saw 9% of collisions despite accounting for 16% of vehicle travel. These comparisons may help inform areas of continued monitoring and potential focus as the Region evaluates road safety strategies across the network.

## Collision Impact Types and Driver Behaviour

Collisions are further categorized by the type of impact, which provides insight into common driving behaviours and roadway conditions. On Regional roads, the most typical collision types include rear-end, angle (such as T-bone), sideswipe, turning movement (often involving opposing turns), approaching (e.g., head-on), single motor vehicle, and other.

As illustrated in Figure 8, rear-end collisions remain the most prevalent, representing 46% of all reported collisions in 2024. Turning movement collisions were the second most common at 17%, followed by sideswipe collisions at 13% and angle collisions at 12%.

**Figure 9 – Collision impact types at intersections, 2024**

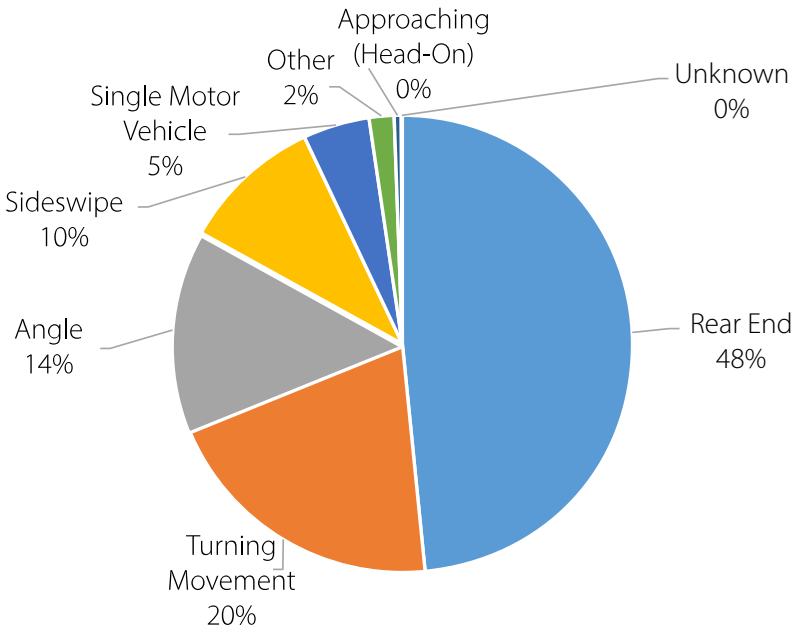
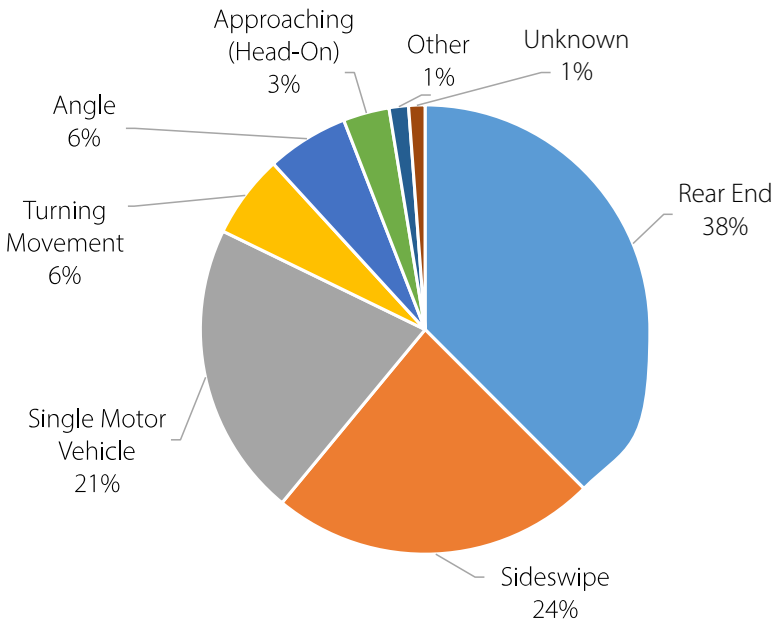



**Figure 10 - Collision impact types at midblocks, 2024**




These patterns have remained relatively consistent year over year and continue to emphasize the need for targeted safety improvements at intersections and along high-volume corridors to help reduce the frequency and severity of these incidents.

When broken down by location, different patterns in collision types begin to emerge. Figures 9 and 10 illustrate the proportion of collision impact types occurring at intersections compared to midblock segments (roadway sections between intersections).

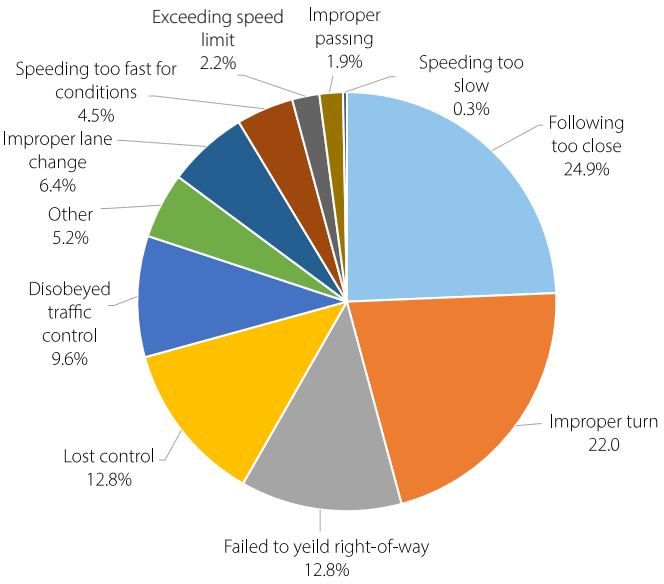
At intersections, rear-end collisions remain the most common, accounting for 48% of all intersection collisions in 2024, followed by turning movement collisions at 20% and angle collisions at 14%. These figures reflect the complexity of intersection operations, where higher volumes of crossing and turning vehicles increase the likelihood of these types of crashes.

Conversely, midblock segments tend to show a different profile. In 2024, rear-end collisions accounted for 38%, with sideswipe and single motor vehicle collisions making up 24% and 21%, respectively. These types of impacts are more typical of uninterrupted traffic flow areas where lane changes, speed variation, and roadside conditions play a larger role.

**Figure 11 - Collision impact types by municipality, 2024**

| Municipality | Approaching | Angle | Rear end | Sideswipe | Single motor vehicle | Turning movement | Other | Total |
|---|---|---|---|---|---|---|---|---|
| Oakville | 3 | 140 | 594 | 189 | 75 | 177 | 24 | 1202 |
| Burlington | 15 | 125 | 530 | 132 | 84 | 176 | 15 | 1077 |
| Milton | 11 | 123 | 394 | 121 | 109 | 192 | 15 | 965 |
| Halton Hills | 15 | 41 | 105 | 38 | 53 | 48 | 5 | 305 |
| Total | 44 | 429 | 1623 | 480 | 321 | 593 | 59 | 3549 |

## Figure 12 – Driver actions in collisions, 2024



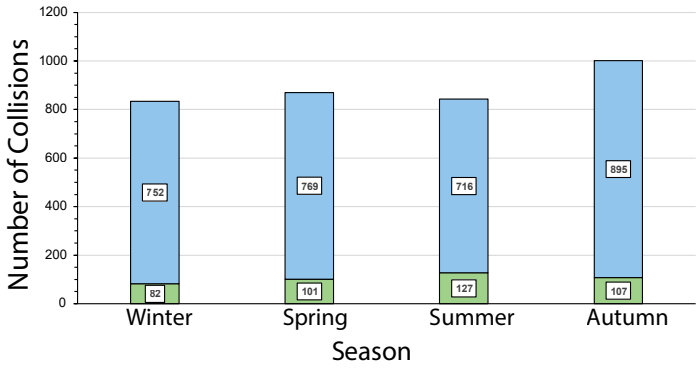

These distinctions reinforce the importance of tailoring safety strategies to context-specific collision patterns - focusing intersection safety improvements on managing turning conflicts and signal timing, while addressing midblock safety through lane design, speed management, and access control.

Figure 11 provides a comparison of collision impact types across each of the local municipalities. The Town of Oakville reported the highest number of rear-end, angle, sideswipe and other collision types. In contrast, the Town of Milton saw the most turning movement and single motor vehicle collisions. Meanwhile, The City of Burlington and Town of Halton Hills recorded the highest number of approaching (head-on) collisions.

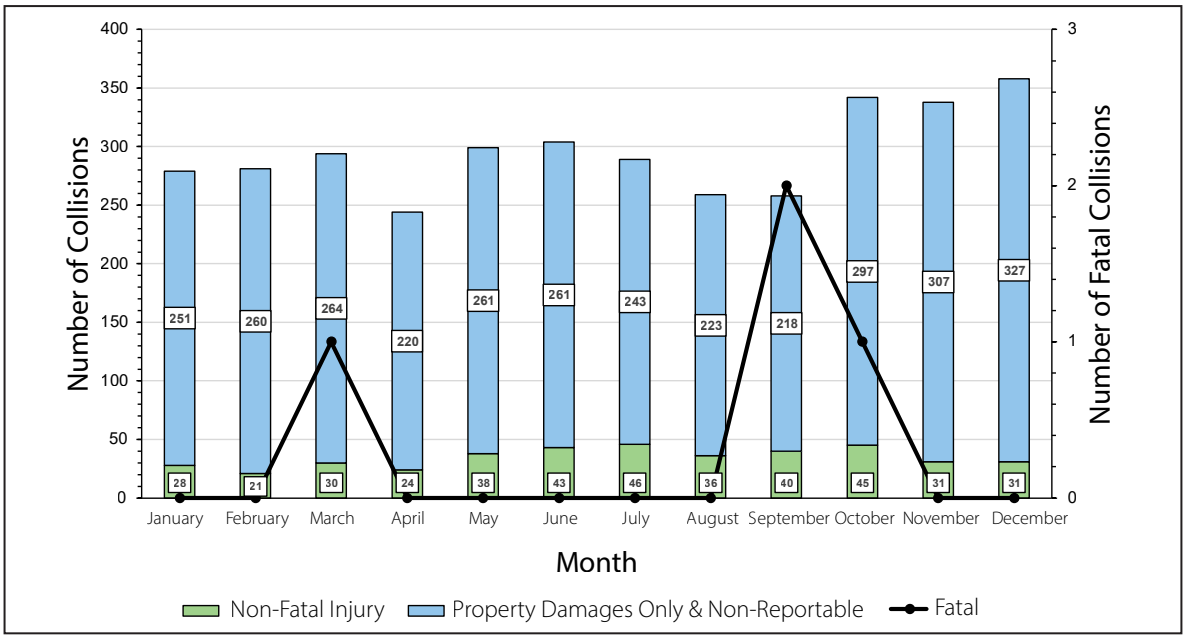
These variations reflect differences in road network characteristics, traffic volumes, and local driving conditions across the Region.

Driver behaviour is closely linked to the type of collision that occurs. For instance, rear-end collisions -Halton's most frequent collision type in 2024 - are often the result of following too closely, where drivers are unable to react in time to sudden stops. Similarly, angle collisions typically involve a driver disobeying traffic control, such as running a red light or failing to yield. Reflecting this relationship, the most common at-fault action in 2024 was "following too close," a trend that has remained consistent over the past five years. Figure 12 illustrates the distribution of at-fault driver actions, highlighting the ongoing importance of addressing risky behaviours through education, enforcement, and engineering measures.

## Figure 14 - Seasonal collision severity, 2024



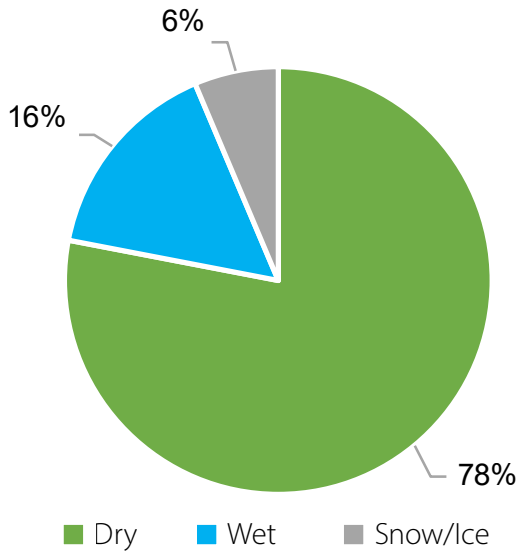

## Figure 13 - Monthly collision severity, 2024



## Collisions by Month, Day, Time

When looking at collisions by time of year, certain patterns begin to emerge. In 2024, the highest number of overall collisions occurred in October, November and December. Conversely, the lowest totals were recorded in April, August and September. However, when focusing on the severity of collisions, the summer and early fall months—particularly July, September and October—saw the highest number of injury and fatal incidents. In contrast, January, February and April experienced the fewest injury-related collisions. These seasonal trends may reflect variations in weather, travel behaviour, and traffic volumes throughout the year. Figure 13 provides a monthly breakdown of collisions by severity.

### Figure 15 - Collision road surface conditions, 2024




When grouped seasonally, collision trends show that fall months experienced the highest number of overall collisions, followed by spring, summer, and then winter. However, when focusing on severity, summer recorded the greatest number of non-fatal and fatal injury collisions, while winter had the fewest. Summer also had the highest number of fatal collisions, with two recorded incidents, while spring and fall each saw one fatal collision. Figure 14 illustrates the distribution of collisions by season and severity.

While most collisions on Regional roads - approximately 78% - occurred during dry road surface conditions, there is a noticeable correlation between weather events and increased collision frequency. In fact, six of the top ten days with the highest number of reported collisions coincided with snow or rain conditions, whereas only four occurred during clear weather. Figures 15 and 16 provide a breakdown of collisions by road surface condition and highlight the top 10 days with the highest collision counts, along with associated weather conditions.

### Figure 16 - Top 10 high frequency collision days, 2024

| Date | Number of Collisions | Snow | Rain | Clear |
|---|---|---|---|---|
| Thursday, February 15, 2024 | 44 | ✓ | | |
| Wednesday, December 4, 2024 | 43 | ✓ | | |
| Wednesday, March 20, 2024 | 37 | ✓ | | |
| Friday, March 22, 2024 | 30 | ✓ | | |
| Tuesday, January 16, 2024 | 22 | ✓ | | |
| Monday, December 23, 2024 | 22 | ✓ | ✓ | |
| Tuesday, October 15, 2024 | 21 | | | ✓ |
| Wednesday, May 22, 2024 | 20 | | | ✓ |
| Tuesday, November 12, 2024 | 20 | | | ✓ |
| Tuesday, March 5, 2024 | 19 | | | ✓ |

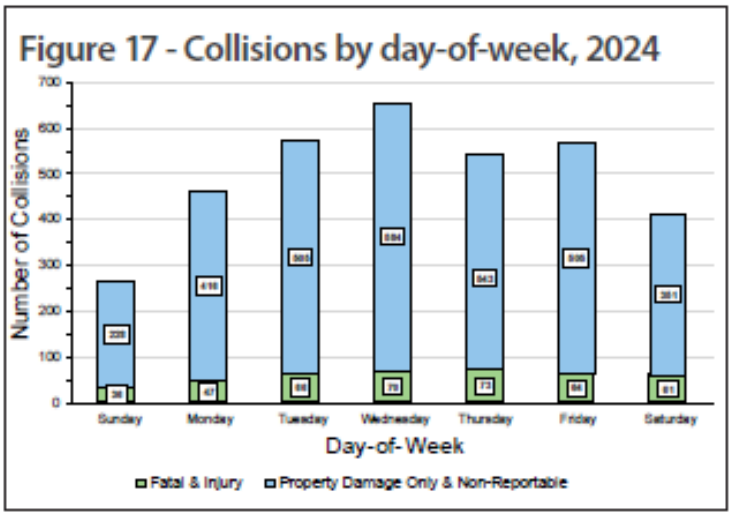
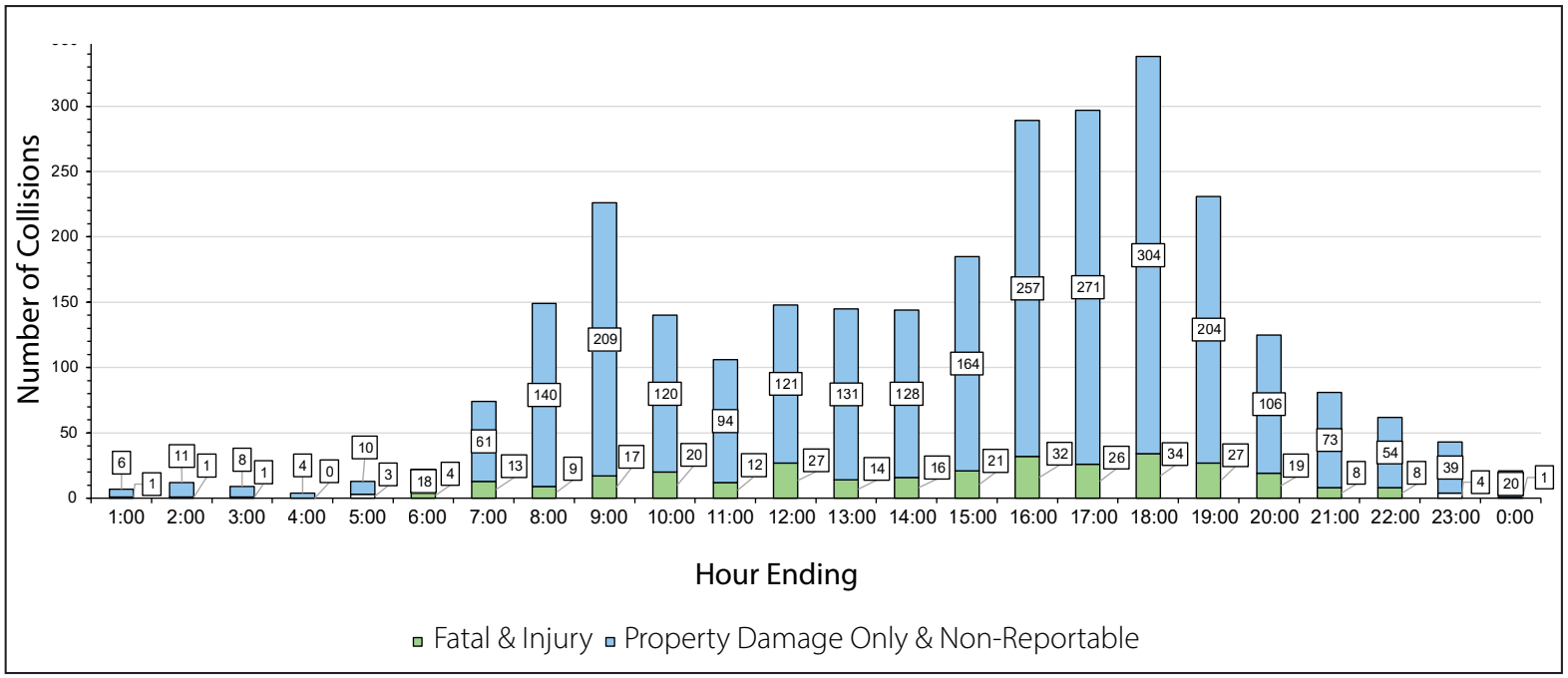


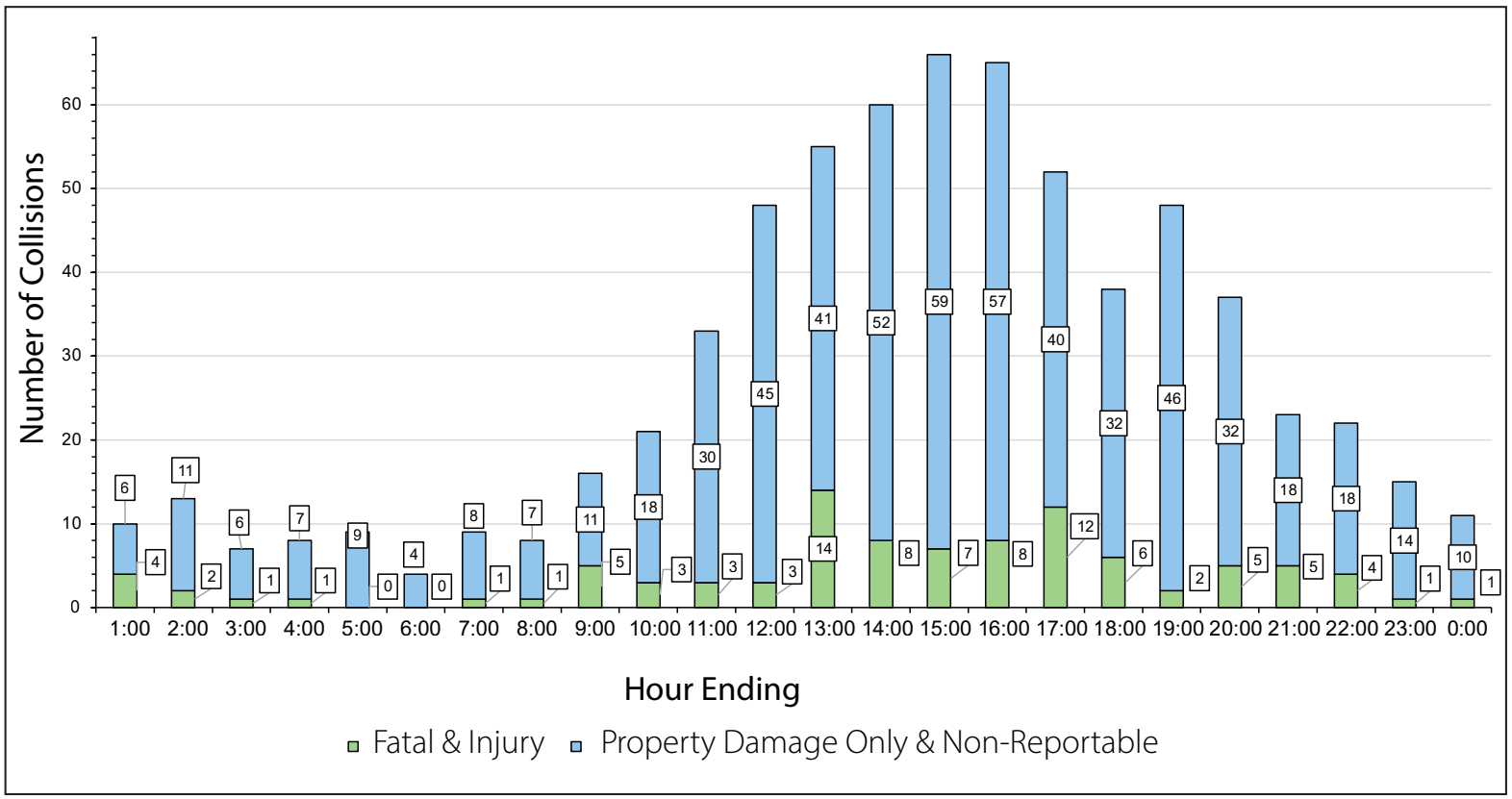

Figure 17 highlights collision patterns by day of the week, showing that Sundays consistently experience the fewest collisions, while Wednesdays have the highest number. In fact, Wednesdays recorded the most collisions for the second consecutive year. Fatal collisions in 2024 occurred on four separate days - Tuesday, Thursday, Friday, and Saturday - demonstrating that while total collisions vary by day, severe incidents can occur throughout the week.

There is a clear correlation between collision patterns and daily traffic volumes. As shown in Figure 18, weekday collisions are concentrated around typical morning and afternoon commute periods, with the highest number occurring between 3 p.m. and 6 p.m., accounting for 35% of all weekday collisions. Morning collisions peak between 8 a.m. and 9 a.m., reflecting activities such as appointments, school and camp drop-offs, and commutes.

## Figure 18 - Weekday collisions by time-of-day, 2024




## Figure 19 - Weekend collisions by time-of-day, 2024



In contrast, Figure 19 illustrates that weekend collisions mostly occur between 12 p.m. and 5 p.m., representing 58% of all weekend collisions. Additionally, weekends experience a higher proportion of collisions during late-night and early-morning hours, with 9% occurring between midnight and 6 a.m., compared to only 3% on weekdays.

## Pedestrian and Cyclist Collisions

Halton has continued to expand its active transportation facilities to better support walking and cycling. In 2024, pedestrian collisions reached their highest level since 2019, totaling 26 incidents, including three involving e-scooters. While there were no pedestrian fatalities, 22 collisions resulted in non-fatal injuries. Among these, two involved serious injuries requiring hospitalization, 13 caused minor injuries treated in emergency rooms, and seven resulted in minor injuries that did not require hospital care.

**Figure 20 - Number of collisions involving pedestrians on Regional Roads, 2004 - 2024**

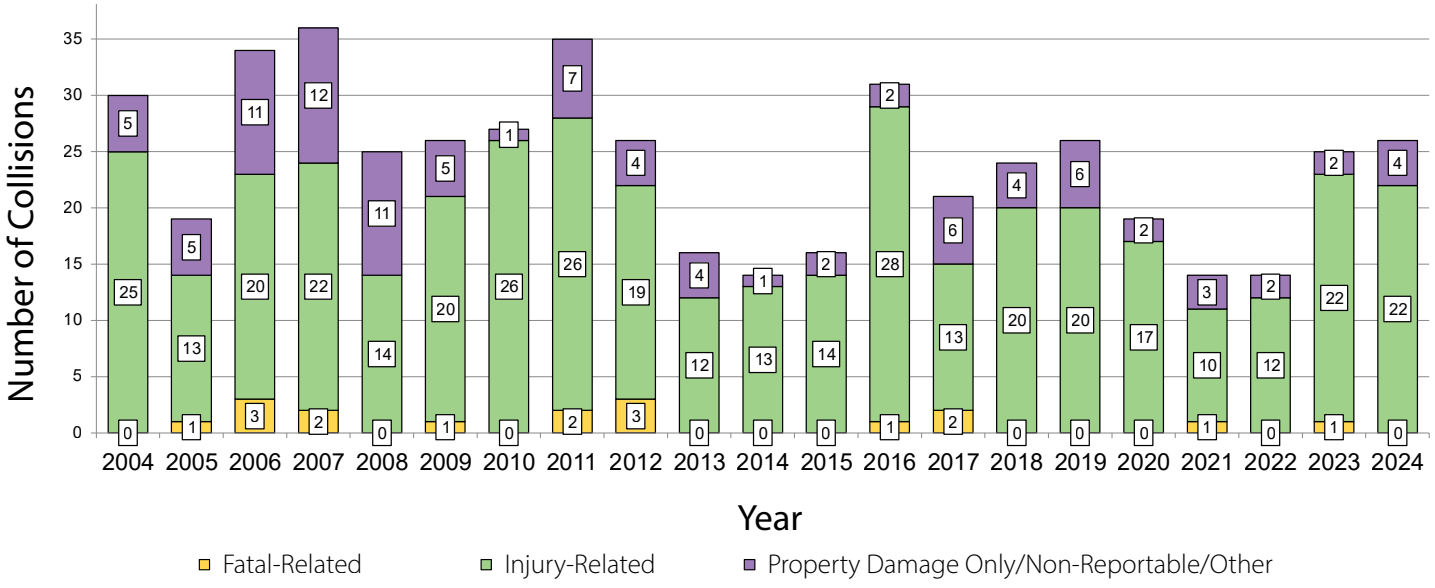
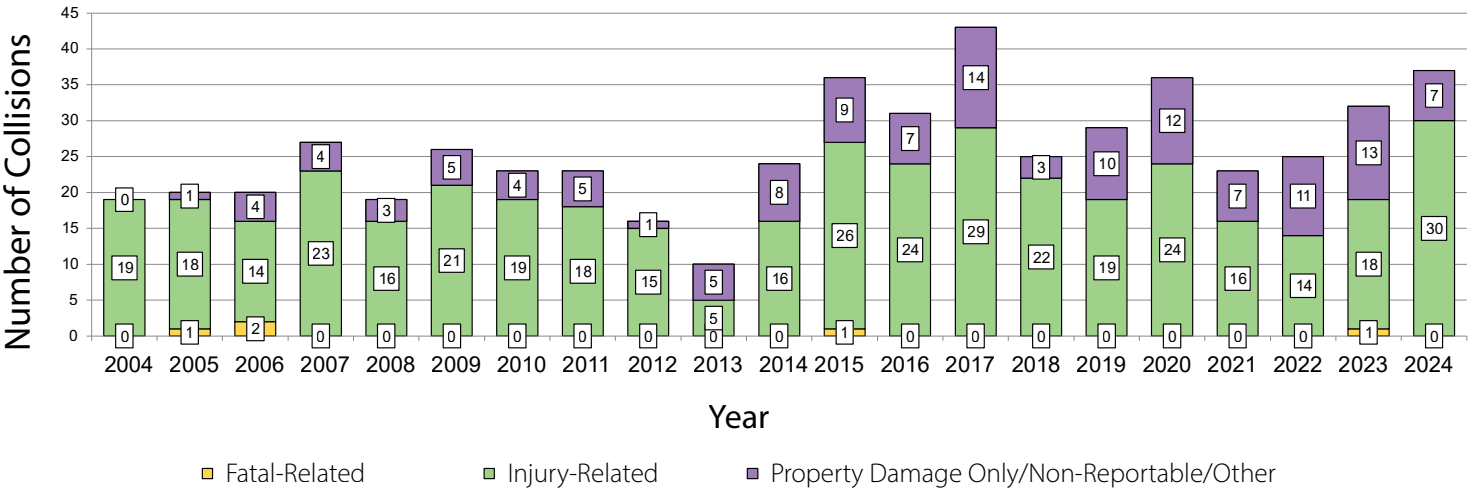



**Figure 21 - Number of collisions involving cyclists on Regional Roads, 2004 - 2024**



Cyclist collisions also increased, rising from 32 in 2023 to 37 in 2024. Although no fatalities were reported, 81% of cyclist collisions led to injuries, up from 59% the previous year. Of the 37 collisions, 30 involved non-fatal injuries, including one serious injury requiring hospitalization, 17 minor injuries treated in emergency rooms, and 12 minor injuries not requiring hospital care.

Pedestrians and cyclists remain vulnerable road users, lacking the protective features available to motorists such as seat belts and airbags. Consequently, collisions involving these groups more often result in injuries.

Figures 20 and 21 illustrate the annual trends in pedestrian and cyclist collisions by severity. While pedestrian collisions have generally declined over time - with some fluctuations - cyclist collisions increased notably during the mid-2010s, likely reflecting growth and urbanization along Regional roads. In response, all current road reconstruction projects are designed to include active transportation facilities, following the Ontario Traffic Manual Book 18 standards. This ensures that the needs of all road users - including vulnerable groups like pedestrians and cyclists - are integrated into planning and design. By adhering to OTM Book 18, these projects prioritize safety, connectivity, and accessibility, fostering a more balanced and sustainable transportation network.

## 3.4 2024 Road Safety Initiatives

Halton Region continues to implement targeted road safety and operational reviews based on findings from the network screening process. Locations identified as having a high potential for safety improvements are reviewed in detail, and where feasible, enhancements are programmed for future implementation.

As part of these ongoing reviews, the Region regularly updates and expands roadway signage, including advanced street name signs, street name signs on signal mast arms, and trailblazer signage for MTO and Highway 407 connections. Upgrades to intersection geometry, such as converting right-turn channels into smart channels with Pedestrian Crossovers (PXOs), are also planned and integrated into upcoming capital projects to enhance safety and accessibility.

### Traffic Operations Safety Study (TOSS) – Visual Inspection

Throughout 2024, staff continued to advance recommendations stemming from the Region-wide Traffic Operations Safety Study (TOSS). This comprehensive study supports a five-year implementation plan to update and replace traffic control devices, including pavement markings, regulatory signs and warning signs. Within the City of Burlington, Town of Oakville, and Town of Halton Hills, the Region is on schedule to have this work completed within the five-year period. These improvements do not require capital projects and are being carried out by the Local Municipalities.

Where capital investment is required, these improvements are bundled with other state-of-good-repair projects, or delivered independently when no planned resurfacing or reconstruction is imminent.

Annual resurfacing projects also provide an opportunity to deliver safety upgrades. In 2024, for example, major streetlight enhancements were delivered as part of the Derry Road resurfacing between James Snow Parkway and Highway 407. Similarly, guiderail improvements, tactile warning surface indicators, and accessible pedestrian signals are commonly integrated into resurfacing scopes.

For infrastructure needs not aligned with scheduled capital work, the Region allocates dedicated funding through business cases to deliver improvements such as:

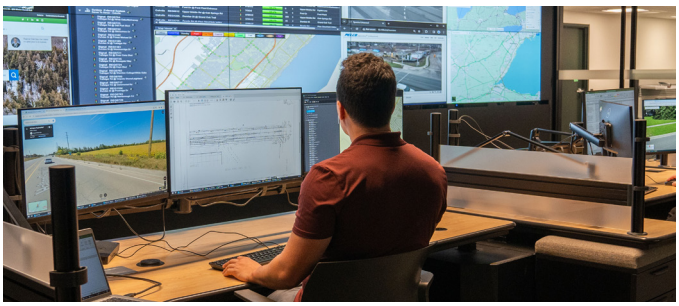
- modifying driveway headwalls and centre-island medians;
- installing dedicated turning lanes;
- constructing smart right-turn channels with PXO; and
- adding protective barriers around retaining walls

These projects demonstrate Halton's continued focus on proactive safety improvements across the Regional Road Network. As part of the Region's Integrated Master Plan, an Active Transportation Study related to separated crossings to enhance connectivity of communities is underway.

## 3.5 Intersection Traffic Control Improvements

Intersection safety remains a key priority in Halton Region. Traffic control improvements such as traffic signals and roundabouts play a critical role in managing vehicle movements and reducing the risk of severe collisions.

Traffic signals provide structured phasing for conflicting traffic movements and are proven to reduce right-angle collisions compared to stop-controlled intersections. Roundabouts offer additional safety benefits by lowering vehicle speeds, reducing conflict points, and eliminating the potential for high-speed, head-on crashes due to their circular, one-way design.



Each year, Halton Region undertakes a comprehensive assessment of all unsignalized intersections to determine the need for traffic signals. This assessment follows the methodology outlined in the Ontario Traffic Manual and considers current traffic volumes, pedestrian activity, and historical collision data. Particular attention is given to "preventable" collisions that would be mitigated under signalized conditions.

While traffic signals remain a valuable tool, the Region also evaluates roundabouts as a viable alternative, particularly where they align with long-term transportation planning objectives. All traffic control decisions are made in collaboration with Asset Management and form part of the Region's capital budgeting and planning framework.

Additionally, intersection resurfacing is completed annually, improving surface conditions and providing better tire grip, which enhances overall safety for all road users.

In 2024, the Region chartered four capital projects to construct traffic signals at:

- James Snow Parkway and Holgate Crescent / Parkhill Drive;
- Guelph Line and Britannia Road;
- Regional Road 25 and Henderson Road; and
- Dundas Street and Taunton Road.

In 2024, the Region built new signalized intersections at:

- Trafalgar Road and 32 Side Road;
- Britannia Road and Rose Way;
- Britannia Road and Kennedy Circle West;
- Britannia Road and Trudeau Drive; and
- Britannia Road and Terra Entrance.

In 2024, construction was completed for a Pedestrian Crossover (PXO) at the intersection of Main Street and Crawford Crescent in Campbellville. This is the second PXO at an unsignalized intersection to be installed on a Regional road. The Region strictly follows the warrant process and guidelines for PXOs as defined in the Ontario Traffic Manual (OTM) Book 15 and the Highway Traffic Act (HTA).

## 3.6 Speed and Road Safety on Regional Roads

Speed management is a vital element in Halton Region's approach to road safety. Although speed-related collisions remain relatively low, excessive speed significantly increases the likelihood and severity of injury when collisions do occur.

Halton Region's Speed Control Policy, first adopted in 2000, provides a structured framework to evaluate and adjust posted speed limits where necessary. Each year, staff conduct a comprehensive speed review across the Regional Road Network. This process involves measuring actual operating speeds and comparing them with existing posted limits. A key metric is the 85th percentile speed, which indicates the speed at or below which 85% of vehicles are travelling under free-flow conditions.

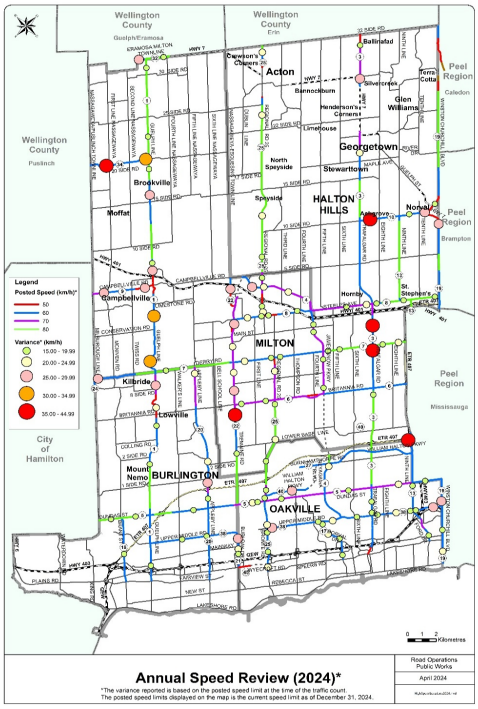
Where discrepancies are observed between posted and operating speeds, a more detailed assessment is conducted. Based on the findings, staff may recommend changes such as adjusting speed limits, increasing enforcement, deploying public awareness initiatives, or implementing physical roadway modifications.

In 2024, no permanent changes to speed limits were made. Temporary speed reductions related to construction activities continue to be managed separately through traffic control plans.

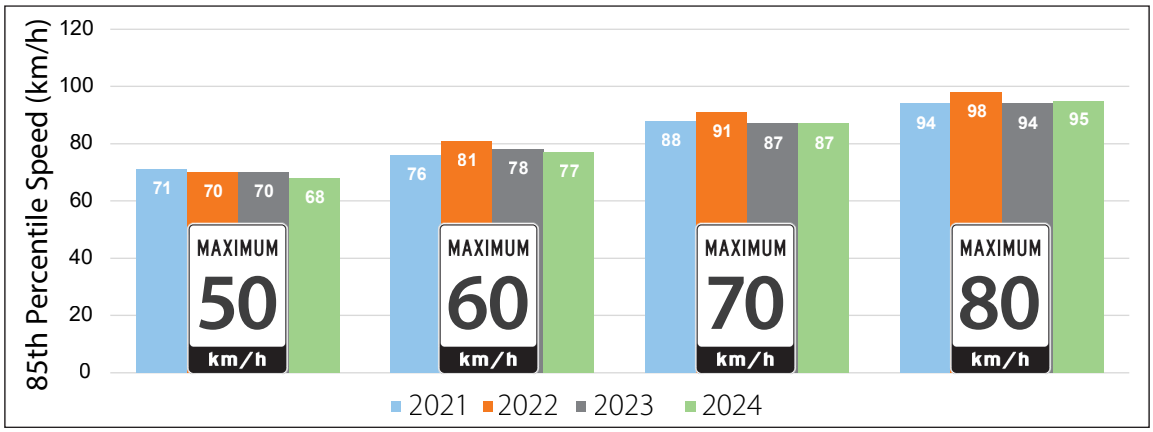
To help manage speeding concerns, the Region implements various countermeasures. These include fixed and portable driver speed feedback signs, public education campaigns, and targeted enforcement by Halton Regional Police. The Region's feedback sign program also provides valuable data, which is used to inform decisions and support enforcement planning.

Collaboration with Halton Regional Police and local municipalities is central to Halton's speed management strategy. Monthly speed data reports are shared with the Police Service to assist in the allocation of enforcement resources and ensure coordinated responses across all jurisdictions.

**Figure 22 - Annual speed review, 2024 (See Appendix B for more detail)**



## Figure 23 - Comparison of 85th percentile speeds, 2021 - 2024




## 2024 Annual Speed Review

Figure 22 shows the results of the 2024 Annual Speed Review, summarizing findings and recommended actions based on current traffic data.

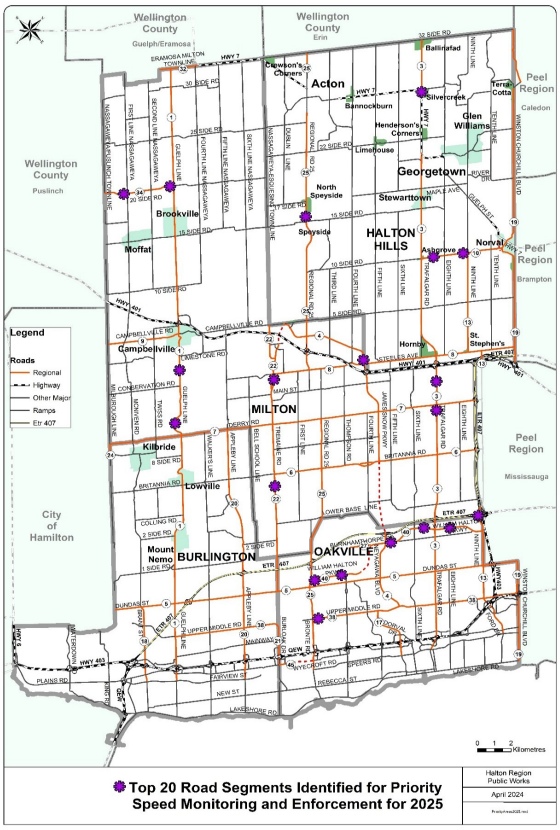
Figure 23 illustrates a comparison of the measured speeds in different speed zones between 2021 and 2024. Overall, there has been consistent operating speeds in 2024 compared to 2023.

Figure 24 and the list below document the top 20 roadway segments that were identified as having the highest variances between posted speed limit and 85th percentile operating speeds.

1. William Halton Parkway - between Neyagawa Boulevard and Burnhamthorpe Road;
2. Tremaine Road – between Lower Base Line and Britannia Road;
3. Trafalgar Road – between Britannia Road and Derry Road;
4. 10 Side Road - between Trafalgar Road and Eighth Line;
5. 20 Side Road - between Milburough Line and First Line;
6. Appleby Line - between 2 Side Road East and 2 Side Road West;
7. Ninth Line - between William Halton Parkway and Lower Base Line;
8. Guelph Line - between Derry Road and Conservation Road;
9. 20 Side Road - between Second Line and Guelph Line;
10. James Snow Parkway - between Steeles Avenue and Esquesing Line;
11. 10 Side Road - between Barber Drive and Ninth Line;
12. William Halton Parkway - between Sixth Line and Trafalgar Road;
13. Guelph Line - between Conservation Road and Limestone Road;
14. William Halton Parkway – Old Bronte Road and Hospital Gate;
15. William Halton Parkway – Hospital Gate and Third Line;
16. Trafalgar Road – between Silver Creek Drive and 27 Side Road;
17. Tremaine Road – between Old Tremaine Road and Steeles Avenue;
18. William Halton Parkway – between Trafalgar Road and Burnhamthorpe Road;
19. Upper Middle Road – between Bronte Road and Reeves Gate; and
20. Regional Road 25 - between 15 Side Road and 17 Side Road

The information gathered in Halton's annual speed review provides Regional staff with locations on Halton Region's road network which require detailed review and possibly the implementation of countermeasures to support the reduction of road user speeds. Although there has been increased instances of speeding on Regional roads, collisions attributed to excessive speeding have seen a minor reduction in the last five years.

## Figure 24 – Priority speed enforcement locations for 2025 (See Appendix C for more detail)




## Annual Review of Posted Speed Limits

To promote driver compliance and improve road safety, it is essential that posted speed limits are both reasonable and consistent with the road environment. The ideal speed limit for any road segment is influenced by several factors, including:

- Roadside environment
- Typical operating speeds
- Road alignment (curves, hills)
- Traffic volume and driveway density
- Pedestrian and cyclist activity
- Adjacent land use

When speed limits are set too high or too low for the road conditions, compliance drops, leading to unsafe speed variations between vehicles. Inconsistencies between posted limits and the visual cues drivers receive—such as road width, shoulder condition, and pavement quality—can also lead to higher or lower operating speeds.

## Speed Management Countermeasures

To address speeding issues on Regional roads, the Region implements several speed management strategies, including:

- Driver speed feedback signs
- Police enforcement
- Portable Variable Message Sign (PVMS) trailers

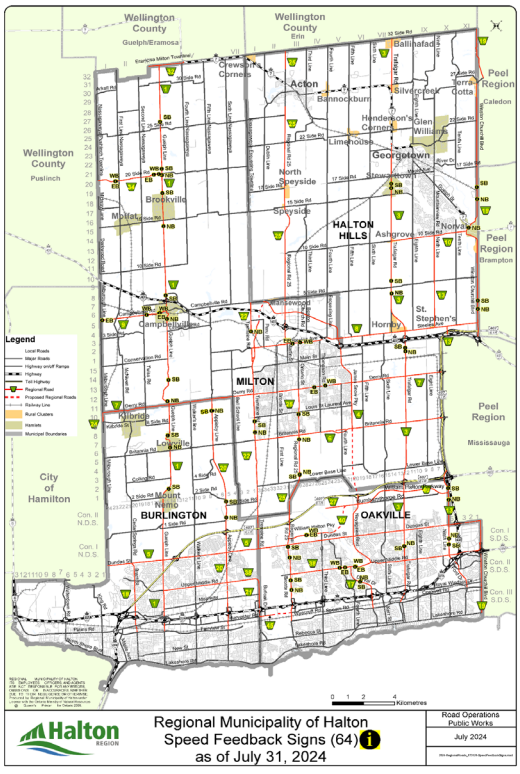
The driver speed feedback sign program is a cost-effective tool that helps reduce vehicle speeds and collect data on driver behavior. The program serves three main purposes:

- Alert drivers of their current speeds
- Identify areas and times with recurring speeding issues
- Determine when targeted enforcement is needed

These signs detect the speed of approaching vehicles and display real-time feedback compared to the posted speed limit. The Region regularly evaluates the effectiveness of the signs through compliance assessments, which consistently show that they help reduce vehicle speeds—improving safety and reducing collision risks.

This data is shared with Halton Regional Police Service to support enforcement efforts by identifying the most effective times and locations for speed monitoring.

## Figure 25 - Speed feedback sign locations (See Appendix D for more detail)



Currently, Halton Region has 64 speed feedback signs installed in priority areas, as shown in Figure 25. Two additional signs were recently added on Dorval Drive, between Old Abbey Lane and Monastery Drive in the Town of Oakville.

### Police Enforcement and Regional Collaboration

Police enforcement remains the most effective method for addressing speeding concerns. Halton Region works closely with the Halton Regional Police Service (HRPS) and the four local municipalities—Burlington, Halton Hills, Milton, and Oakville—to coordinate targeted enforcement efforts across the Region.

Speed data from the annual speed review, driver speed feedback signs, and spot speed studies is regularly analyzed and shared with HRPS. These insights are used by the District Response Units (DRUs) to focus enforcement efforts on high-priority areas where speeding is most frequent.

To support ongoing collaboration, Regional staff provide monthly speed data reports to HRPS. This proactive partnership ensures enforcement resources are deployed strategically and consistently across all municipalities.

This coordinated approach strengthens the Region's overall speed management strategy by combining data-driven insights with visible, targeted enforcement.

## 3.7 Red Light Camera Program

Halton Region continues to participate in the Provincial Red Light Camera Program, which aims to improve road safety by reducing red light running and the resulting high-severity, right-angle collisions at signalized intersections.

Since joining the program in 2012, Halton has installed 23 red light cameras at key intersections across the Region. The cameras use automated enforcement to target specific red-light violations known to cause angle-type collisions, improving safety for both drivers and pedestrians.


### Program Results and Safety Impact

The program has shown strong safety benefits. Since 2017, intersections equipped with red light cameras have experienced a 27% reduction in right-angle collisions. This trend is illustrated in Figure 26, which compares collision rates before and after RLC installation.

Although an increase in angle collisions was observed at the intersection of Guelph Line and South Service Road following the installation of the red light camera, it is important to note that only one angle collision was reported in 2024. The Region consulted with the MTO to confirm that all signal head placements at the intersection comply with provincial requirements. In collaboration with the City of Burlington, the Region also trialed various signal timing plans to address concerns related to vehicles entering the intersection during the yellow change interval. These trials concluded that the existing timing plans are the most effective in minimizing red light running and reducing the risk of vehicles being caught in the dilemma zone.

**Figure 26 - Red light camera collisions**

| Location | Activation Date | Angle Collisions Before RLC Deployment | Angle Collisions After RLC Deployment | Difference | Percentage Change |
|---|---|---|---|---|---|
| Derry Road and Commercial Street | July 21, 2017 | 7 | 5 | -2 | -29% |
| 10 Side Road and Eighth Line | August 3, 2017 | 6 | 1 | -5 | -83% |
| Guelph Line and South Service Road | October 6, 2017 | 18 | 23 | 5 | 28% |
| Derry Road and Savoline Boulevard | | 5 | 2 | -3 | -60% |
| Upper Middle Road and Sixth Line | | 9 | 5 | -4 | -44% |
| *Comparison above shows 7 years before and after activation date* | | | | | |
| Upper Middle Road and Third Line | August 27, 2019 | 7 | 5 | -2 | -29% |
| Steeles Avenue and Ninth Line North | | 5 | 4 | -1 | -20% |
| Ford Drive and Royal Windsor Drive | September 19, 2019 | 7 | 2 | -5 | -71% |
| *Comparison above shows 5 years before and after activation date* | | | | | |
| **Total** | | **64** | **47** | **-17** | **-27%** |

Looking ahead, in 2025, the Region will further assess strategies to reduce red light running and angle collisions. This review will include an evaluation of the intersection's geometrics, in particularly the northbound on-ramp immediately north of the intersection, and the visibility of signal heads and all available traffic control treatments to determine their influence on driver behaviour and compliance.

## Infraction Trends (2018-2024)

In 2024, the Region recorded an average of fewer than 2 red light infractions per day, a slight decrease from 2023. Figure 27 presents total annual infractions and average daily rates from 2018 to 2024. The downward trend suggests improved driver compliance at red light camera monitored intersections.

**Figure 27 - Red light camera infraction rate, 2018 – 2024**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|
| Number of Active Cameras | 17 | 20 | 18 | 18 | 18 | 23 | 23 |
| Total Infractions | 14,715 | 12,880 | 9,593 | 11,207 | 13,010 | 14,558 | 14,994 |
| Total Active Days | 5,532 | 6,080 | 6,406 | 6,552 | 6,336 | 7,290 | 8,076 |
| Average Daily Infraction Rate | 2.66 | 2.12 | 1.5 | 1.71 | 2.05 | 2.00 | 1.86 |

## Top Five RLC Locations by Infractions (2024)

As shown in Figure 28, the intersections with the highest number of infractions in 2024 were:

1. Guelph Line & South Service Road (northbound) – 2,139 infractions
2. James Snow Parkway & Main Street – 1,648 infractions
3. Trafalgar Road & Leighland Avenue – 1,020 infractions
4. Derry Road & Commercial Street – 950 infractions
5. Guelph Line & Mountainside Drive – 810 infractions

A full map of RLC locations is provided in Figure 29 and Appendix E.

The Red Light Camera program continues to demonstrate success in reducing serious collisions. Halton Region plans to expand the program to additional signalized intersections to further enhance road safety which has been budgeted.


**Figure 28 - Top five locations for red light infractions in 2024**

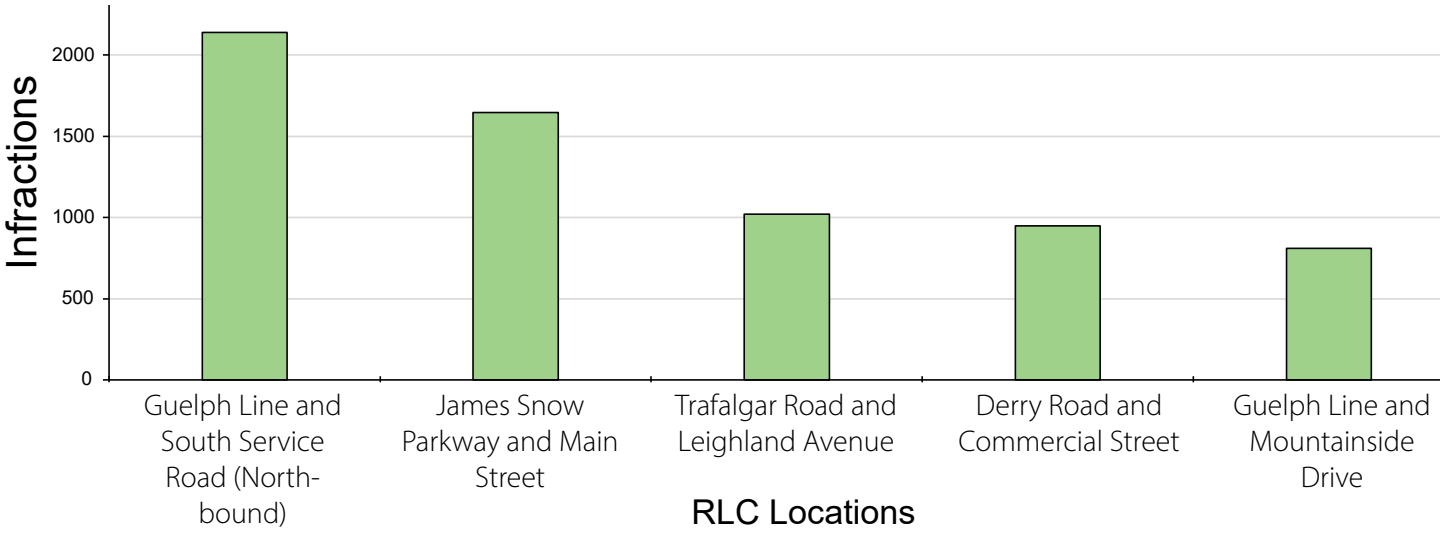
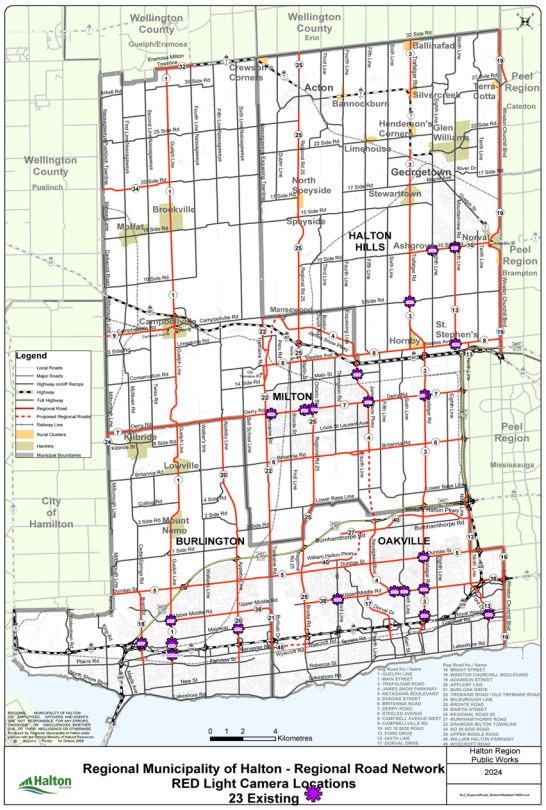


**Figure 29 - RLC Locations (See Appendix E for more detail)**




## 3.8 Drive SAFE Public Awareness Program

The The Drive SAFE (Safety Awareness For Everyone) program is Halton Region's public education initiative focused on promoting safe driving behaviours and reducing risky activities such as speeding, aggressive driving, and distraction.

The program delivers a range of safety messages through multiple channels, including social media, printed materials, community outreach, and partnerships with other Regional departments. Recent initiatives have included safety videos on school zone awareness and distracted driving, developed in collaboration with Halton Regional Police.

As part of the annual Project Safe Start campaign, Regional staff supported enforcement and education efforts at the beginning of the school year. These efforts emphasized the importance of driver attention in school zones and compliance with speed limits, stop signs, and school bus laws.

To complement fixed signage, the Region also deploys portable variable message signs in areas with known speeding concerns or near schools. These signs provide real-time speed feedback to drivers and serve as a visible reminder to slow down and drive cautiously.

In 2024, targeted deployments focused on areas near schools and during seasonal transitions such as the end of Daylight Savings Time, reinforcing messages about visibility, winter preparedness, and safe driving in low-light conditions.

# 4. Operational Performance

Halton Region is committed to maintaining a safe, efficient, and reliable transportation network. To support this objective, staff conduct annual monitoring programs that assess network performance and inform ongoing operational improvements.

## 4.1 Travel Speed and Delay Study

The annual Travel Speed and Delay Study is a key performance monitoring initiative that evaluates traffic flow on Regional roads. The study compares actual travel times during peak periods with ideal travel times under free-flow conditions to assess level of service (LOS) and identify areas of delay or congestion. Level of service is a qualitative measure to describe the quality of traffic flow along a segment based on factors such as speed, travel time, freedom to maneuver, and driver comfort. It is graded from A (free-flow conditions) to F (severe congestion) to indicate how efficiently vehicles can travel on that roadway.

The level of service framework helps the Region understand where traffic performance is strong and where improvements may be needed. Results from this study are used to inform future planning, prioritize corridor improvements, and guide capital investment decisions.

Improvements observed in 2024 reflect the continued benefits of signal timing optimization, strategic capital projects, and long-term planning for corridor performance.

Figure 30 shows the level of service for Regional corridors during the a.m. and p.m. peak periods in 2024.

**Figure 30 – LOS by Corridor (2024 a.m. and p.m. Peak Periods)**

| Level of Service | A.M. Peak Period | P.M. Peak Period |
|---|---|---|
| A/B | 60% | 48% |
| C | 38% | 43% |
| D | 2% | 7% |
| E | 0% | 2% |
| F | 0% | 0% |

### 2024 Level of Service Highlights

The 2024 results indicate an overall improvement in travel conditions compared to 2023. As shown in Figures 31 and 32, a larger percentage of the Regional Road Network operated at level of service A/B or C in both peak periods.

- 98% of the road network operated at LOS A/B or C during the a.m. peak
- 91% of the road network operated at LOS A/B or C during the p.m. peak

Other than in 2020 (an outlier year likely affected by pandemic traffic patterns), 2024 had the highest percentage of LOS A/B since monitoring began in 2019.

These improvements reflect the benefits of:

- Ongoing corridor and intersection optimization
- Targeted capital reconstruction projects
- Strategic traffic signal timing updates

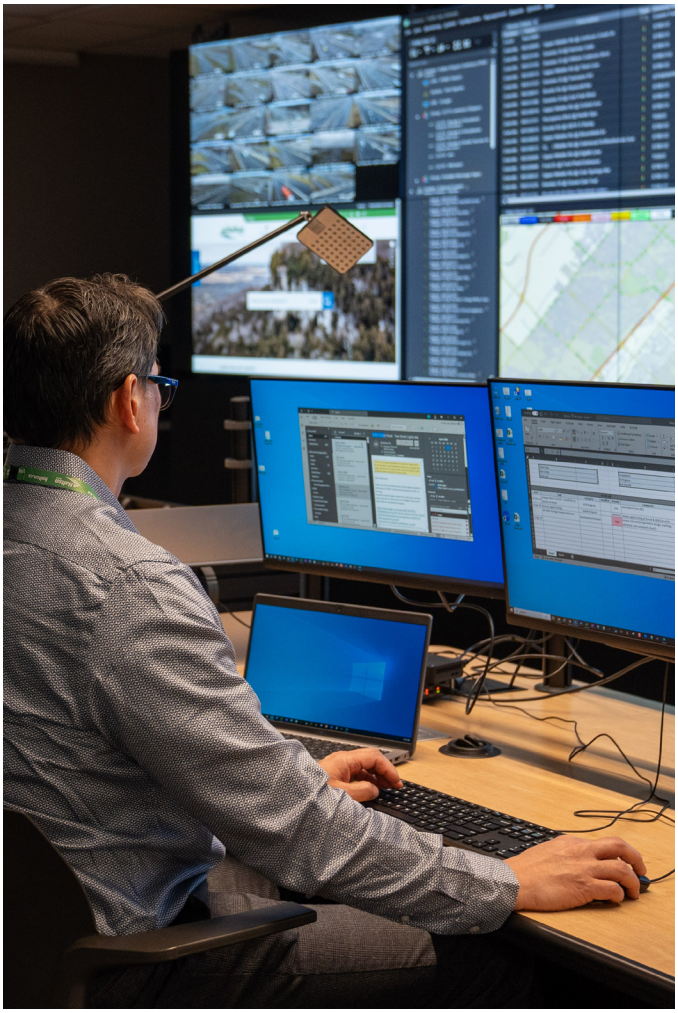


Figure 31 – Percentage of Network by LOS (a.m. Peak, 2019–2024)

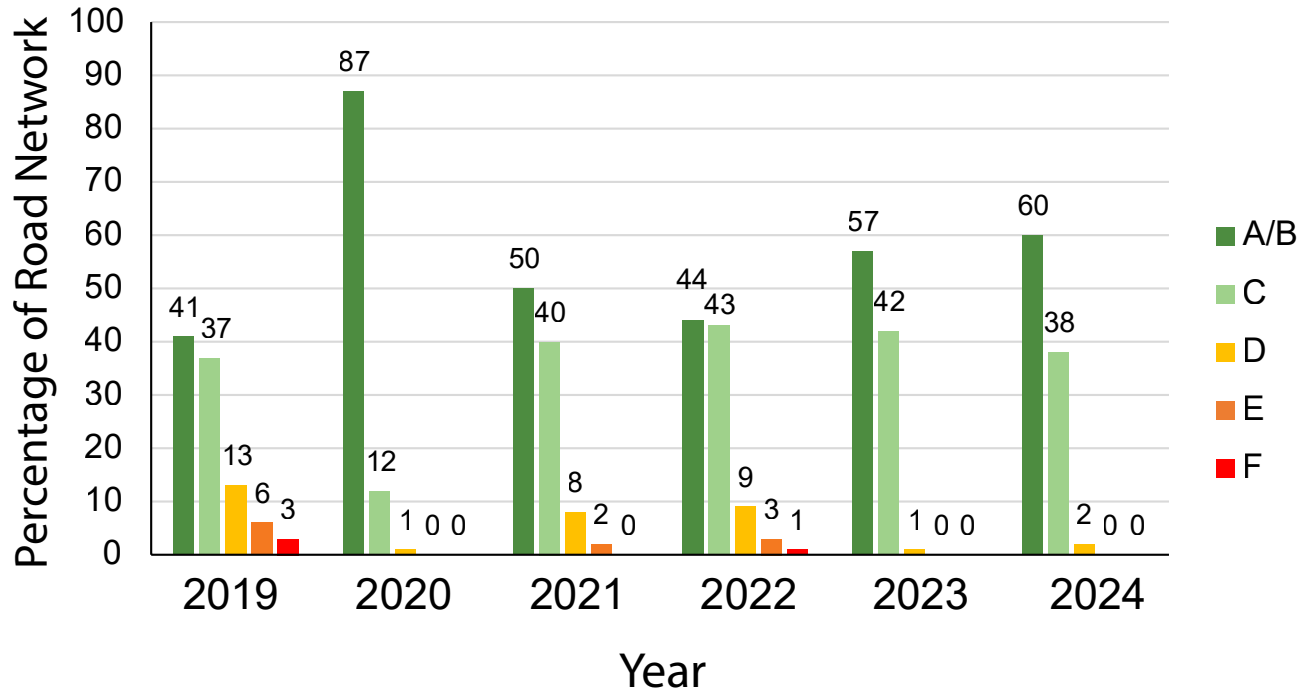
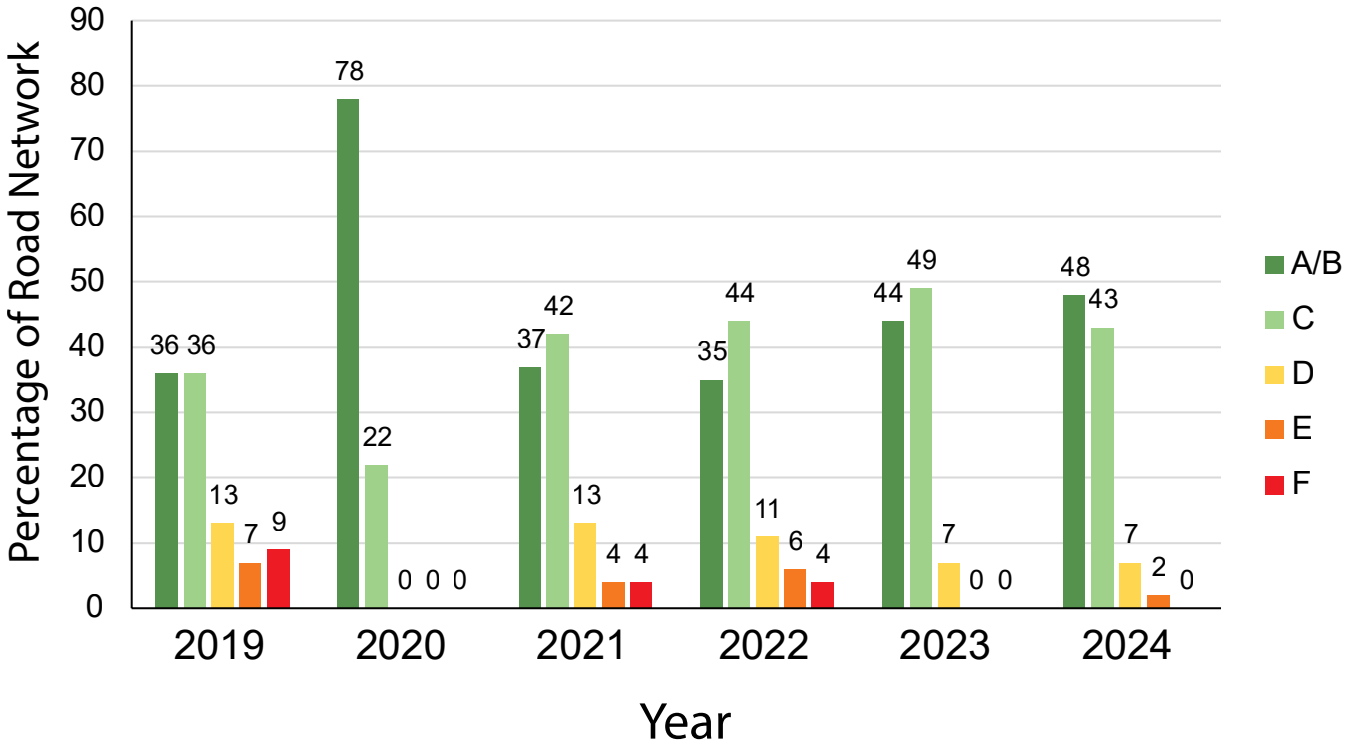



Figure 32 – Percentage of Network by LOS (p.m. Peak, 2019–2024)



## 4.2 Traffic Signal Corridor Optimization

Signal coordination plays a critical role in the efficient operation of the Regional Road Network. Since 2011, Halton has undertaken annual signal optimization studies along priority corridors to improve travel times and reduce delays.

These studies review current traffic conditions and adjust signal timings to better accommodate peak direction flows, typically favouring eastbound and southbound movements in the morning and westbound and northbound in the afternoon.

Each study looks at individual intersections as well as overall corridor performance to ensure consistent and efficient movement.

In 2024, signal optimization was completed on the following corridors:

- Trafalgar Road, from Cornwall Road to Threshing Mill Boulevard
- Appleby Line, from Fairview Street to Palladium Way

These corridors were selected based on traffic volumes, congestion issues, proximity to major destinations or highways, and overall traffic flow challenges.

Optimizing signal timing along these routes helps:

- Reduce vehicle delays,
- Improve progression along corridors, and
- Enhance traffic safety and network reliability.

As part of long-term planning, modern signal interconnect infrastructure is being implemented along upgraded corridors to support ongoing coordination and future smart traffic management technologies.

# 5. Conclusion

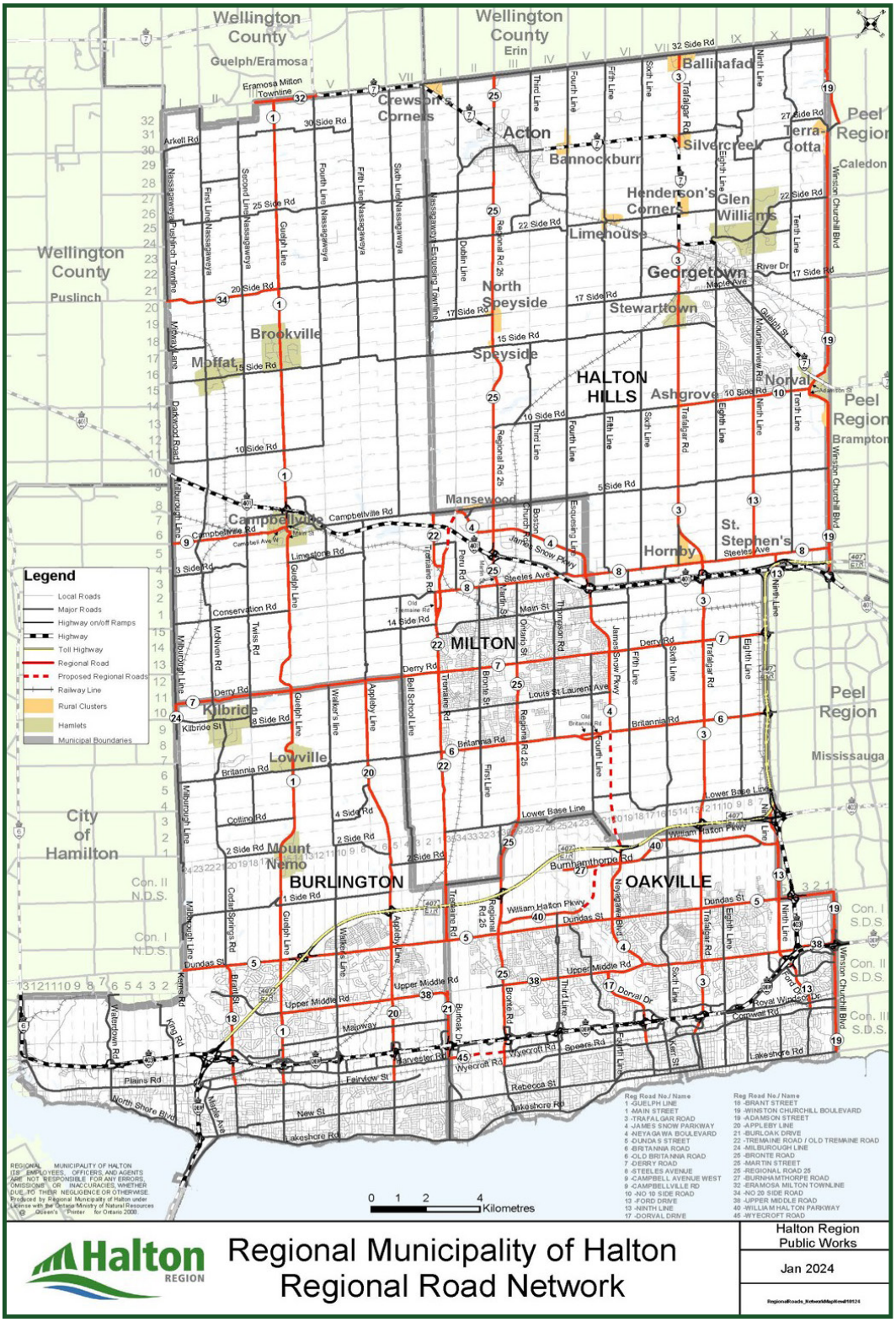
The **2024 Transportation Progress Report** highlights key initiatives and performance outcomes across the Regional Road Network. Notable achievements include:

- **Completion planning of the TOSS visual inspection program**, which identified over 350 deficiencies related to non-compliant or missing traffic signs and pavement markings are being addressed under a 5-year plan that remains on schedule.
- **Procurement of two new driver speed feedback signs**, supporting ongoing speed management and enforcement initiatives.
- Continued public engagement through the **DriveSAFE campaign**, including the Safe Start back-to-school safety initiative in partnership with Halton Regional Police.
- **Resumption of the annual corridor optimization program,** with optimizations completed for Appleby Line and Trafalgar Road in 2024.
- Strong network performance, with **98% of Regional roads operating at level of service A/B or C** during morning peak period and **91% at level of service A/B or C** during the afternoon peak period.

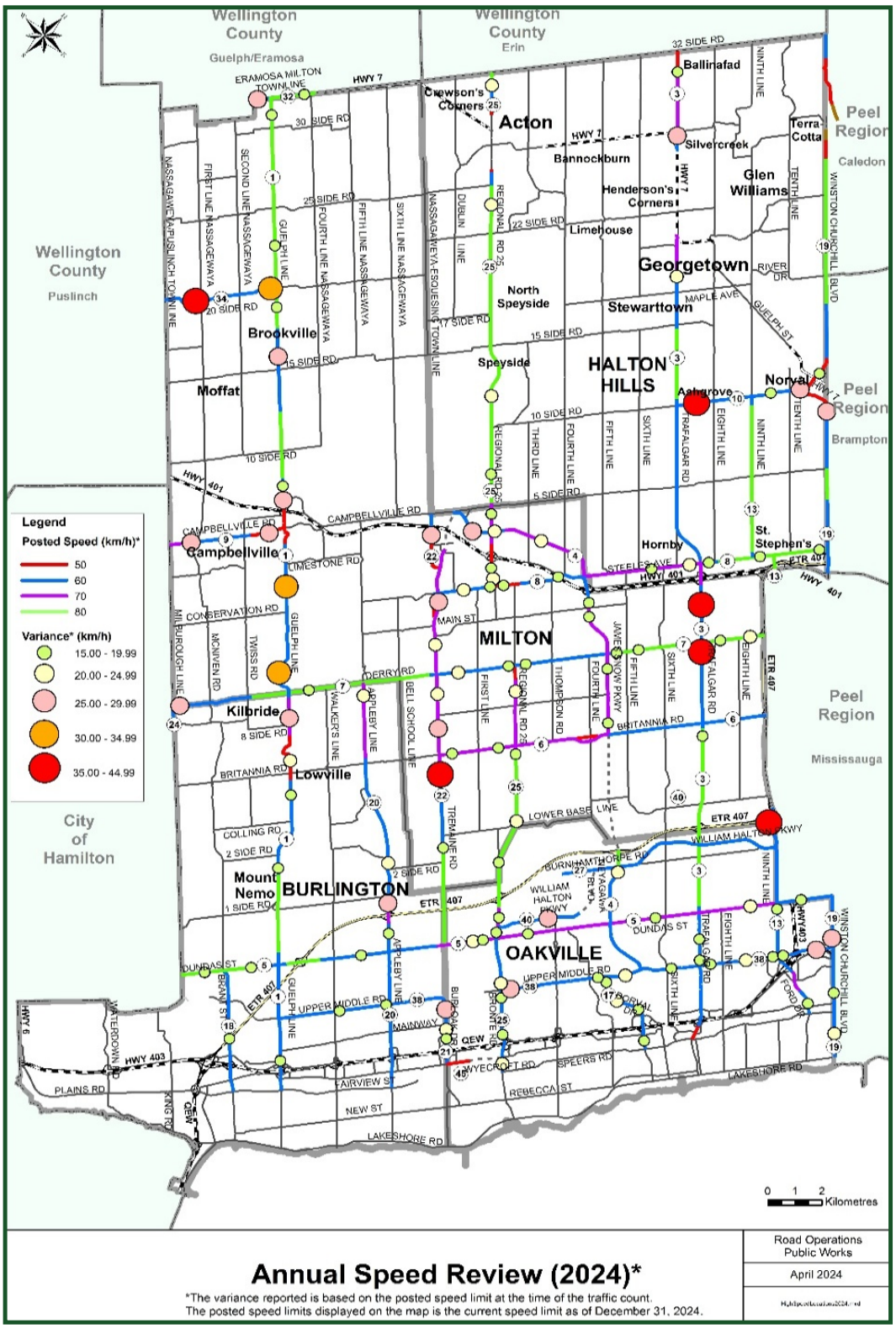
These results demonstrate Halton Region's commitment to proactive traffic management, road safety, and long-term infrastructure planning.

# Appendix A

## Appendix A

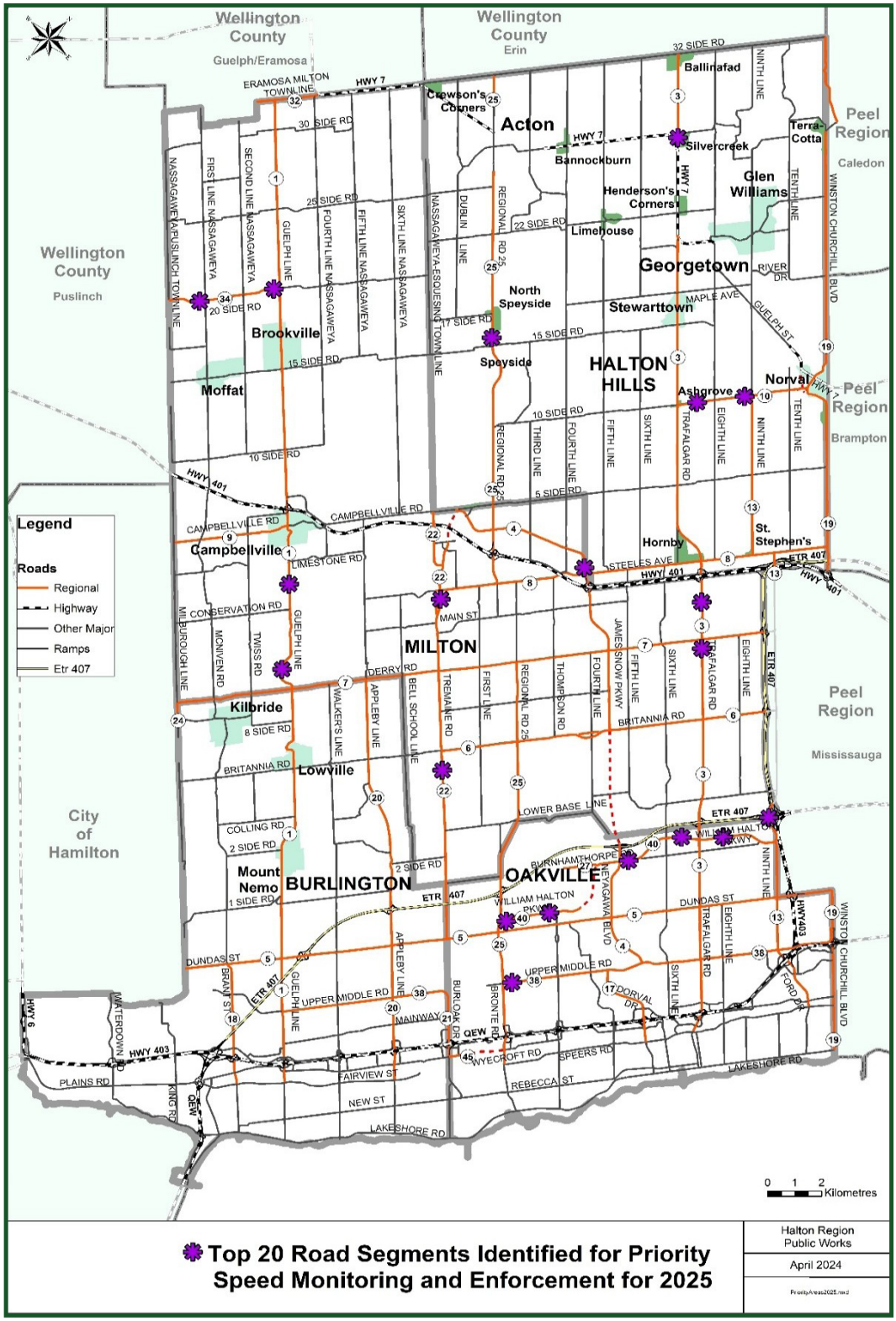


## Appendix B

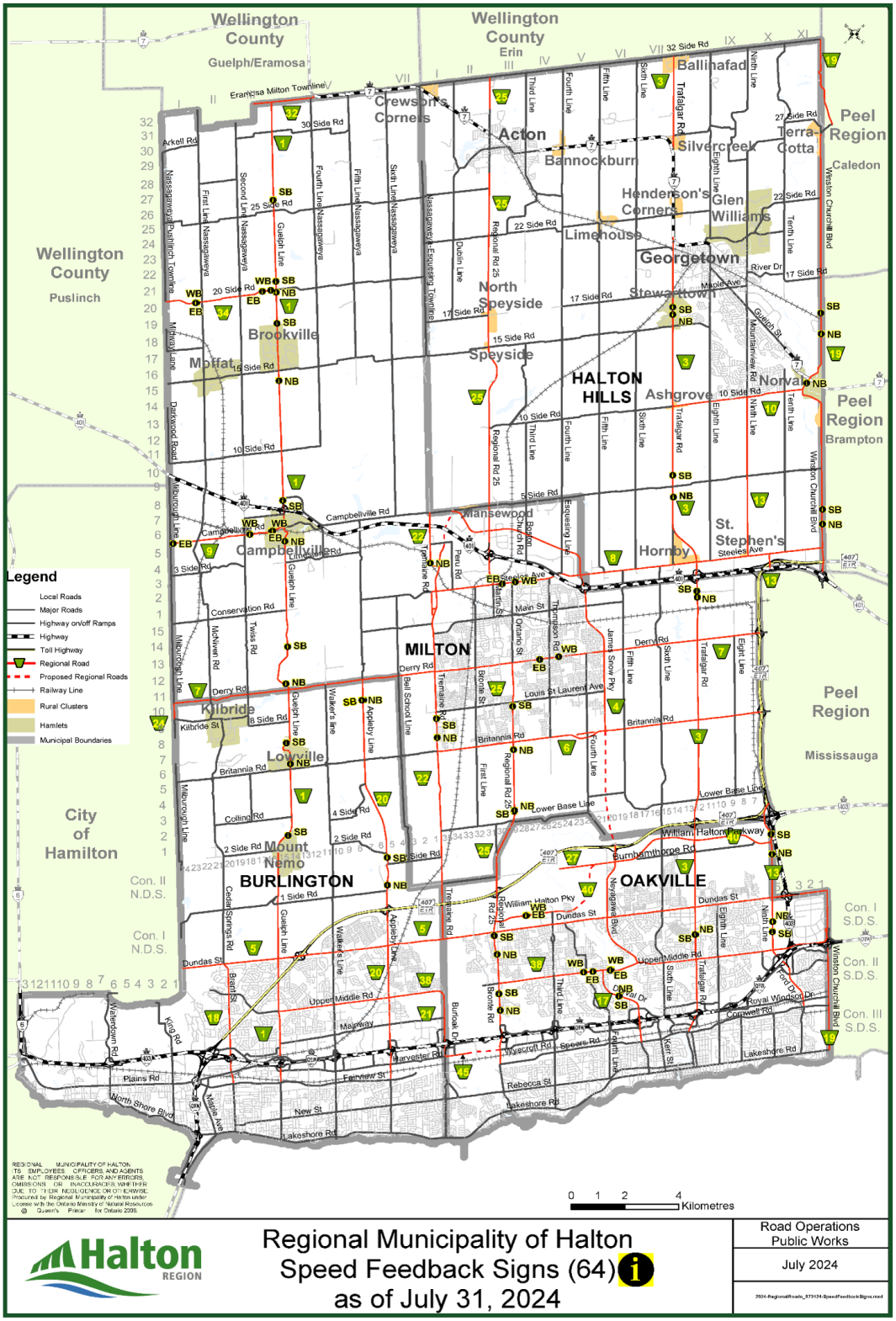

Wellington County
Guelph/Eramosa
Wellington County
Erin
Wellington County
Puslinch
City of Hamilton
Peel Region
Caledon
Peel Region
Brampton
Peel Region
Mississauga
Legend
Posted Speed (km/h)*
50
60
70
80
Variance* (km/h)
15.00 - 19.99
20.00 - 24.99
25.00 - 29.99
30.00 - 34.99
35.00 - 44.99
Acton
Georgetown
Brookville
Moffat
Campbellville
Kilbride
Lowville
Mount Nemo
BURLINGTON
OAKVILLE
MILTON
HALTON HILLS
Stewarttown
North Speyside
Speyside
Limehouse
Bannockburn
Silvercreek
Glen Williams
Henderson's Corners
Crewson's Corners
Ballinafad
Terra-Cotta
Ashgrove
Norval
Hornby
St. Stephen's
Norval
Limestone Rd
Campbellville Rd
Britannia Rd
Derry Rd
Main St
Steeles Ave
Lower Base Line
Dundas St
Upper Middle Rd
Mainway
Plains Rd
Fairview St
New St
Lakeshore Rd
Speers Rd
Rebecca St
Wyecroft Rd
Colling Rd
Burnhamthorpe Rd
Hwy 401
Hwy 403
ETR 407
QEW
Hwy 7
Hwy 6
0 1 2 Kilometres
Annual Speed Review (2024)*
*The variance reported is based on the posted speed limit at the time of the traffic count.
The posted speed limits displayed on the map is the current speed limit as of December 31, 2024.
Road Operations
Public Works
April 2024

# Appendix C

## Appendix C



## Appendix D


Wellington County
Guelph/Eramosa
Wellington County
Erin
Wellington County
Puslinch
Crewsons Corners
Acton
Bannockburn
Ballinafad
Silvercreek
Terra-Cotta
Peel Region
Caledon
Henderson's Corners
Glen Williams
Limehouse
Georgetown
Stewarttown
North Speyside
Speyside
Brookville
Moffat
HALTON HILLS
Ashgrove
Norval
Peel Region
Brampton
Mansewood
Campbellville
Hornby
St. Stephen's
MILTON
Kilbride
Lowville
Peel Region
Mississauga
City of Hamilton
Mount Nemo
BURLINGTON
OAKVILLE
Con. II N.D.S.
Con. I N.D.S.
Con. I S.D.S.
Con. II S.D.S.
Con. III S.D.S.
Legend
Local Roads
Major Roads
Highway on/off Ramps
Highway
Toll Highway
Regional Road
Proposed Regional Roads
Railway Line
Rural Clusters
Hamlets
Municipal Boundaries
0 1 2 4
Kilometres
Halton REGION
Regional Municipality of Halton
Speed Feedback Signs (64)
as of July 31, 2024
Road Operations
Public Works
July 2024

# Appendix E

## Appendix E