

Vision Zero

Road Safety Strategic Plan

2018 – 2022



This page is intentionally left blank

Table of Contents

A Message from the Regional Chair	1
Introduction	3
Quick Facts	4
Stakeholders	8
Vision Zero	9
Vision and Goal for The Region of Peel Vision Zero Road Safety Strategic Plan	10
Action Plan	10
Road Safety Strategic Plan Emphasis Areas	11
• Emphasis Area 1: Intersections	12
• Emphasis Area 2: Aggressive Driving	14
• Emphasis Area 3: Distracted Driving	16
• Emphasis Area 4: Impaired Driving	17
• Emphasis Area 5: Pedestrians	18
• Emphasis Area 6: Cyclists	19
Vision Zero Task Force	20
Moving Forward	21

A Message from the Regional Chair

I am pleased to share the Region of Peel's first Road Safety Strategic Plan which reflects our commitment to Vision Zero - the philosophy that no one should be killed or seriously injured as the result of a collision within the road network.

Road safety has been and continues to be a top priority in the Region of Peel. As our population continues to grow, so do the number of citizens who walk, cycle, and drive on our roadways. With this growth and an awareness of the benefits of sustainable modes of transportation, the Region of Peel recognizes the need to evolve how we address road safety and that – **no loss of life is acceptable**.

The development of the Road Safety Strategic Plan could not have been completed by the Region of Peel alone.

The plan has been made possible through a collaborative effort from a number of key stakeholders including Peel Public Health, Peel Regional Police, the Ontario Provincial Police, local municipalities, partner agencies, and community groups that share a common interest in improving road safety.

The Road Safety Strategic plan provides a holistic list of measures comprised of education, engineering and enforcement solutions with the objective of protecting all road users in the Region.

We begin this journey towards our vision by acknowledging that life and health should never be placed at risk in exchange for other benefits.

I wish to thank our stakeholders and members of the community for their commitment in working *with us* to make Peel safer and healthier for all citizens in support of creating a *community for life*.

Sincerely,



Frank Dale
Chair, Region of Peel





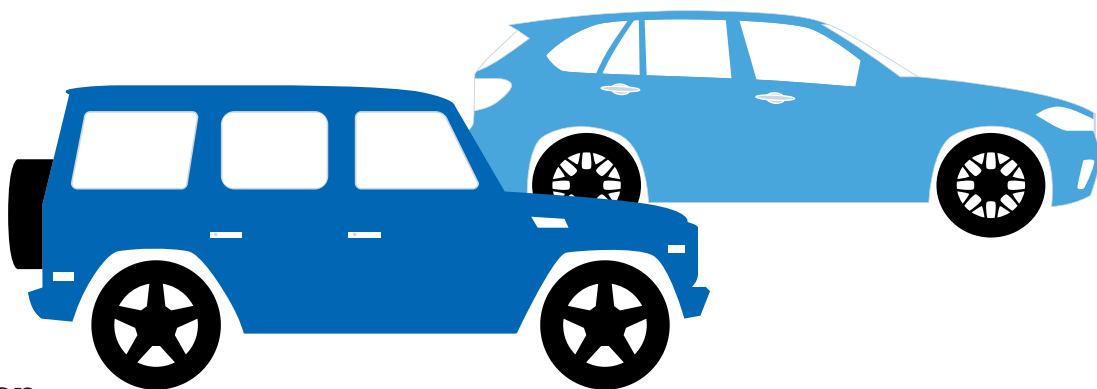
Introduction

The Region of Peel is the second largest municipality in Ontario after Toronto, with over 1.4 million people living in Brampton, Mississauga, and Caledon. With seven 400-series highways and the Toronto Pearson International Airport within its boundaries, Peel has a complex road network to support the movement of people within the Region. They move around using different modes of transportation including automobiles, transit, walking, and cycling. These high volumes will rise continually along with population and employment growth.

On average, approximately 1000 injury collisions and 9 fatal collisions occur annually on roads under the jurisdiction of Region of Peel. The Region has committed to Vision Zero, a framework to coordinate efforts and resources among agencies and stakeholders to prevent fatalities and injuries from motor vehicle collisions. Vision Zero can be summarized in one sentence: **No loss of life is acceptable**. The Road Safety Strategic Plan (RSSP) sets out the vision, goals, and an action plan to create safer roads by reducing, and ultimately eliminating motor vehicle collisions causing injury and death. The Region and its safety partners have committed to implementing the actions outlined in the plan to continually improve road safety for all road users.

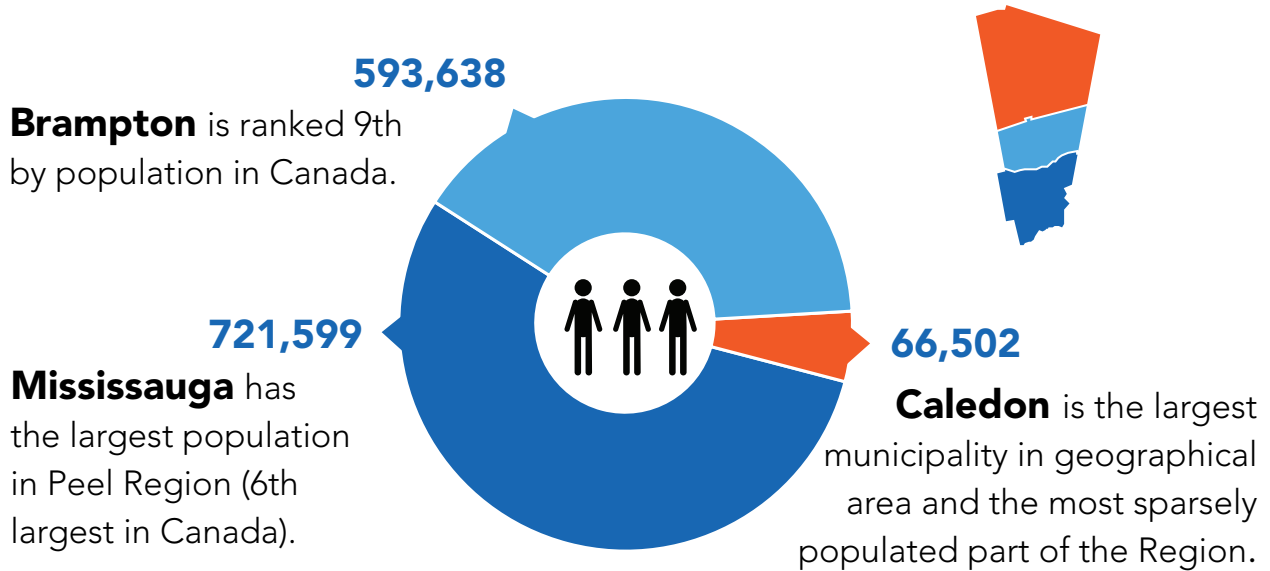
The RSSP aligns with a number of priorities outlined in the Region of Peel's Strategic Plan (2015-2035). This includes promoting healthy and age-friendly built environments and building a community that promotes safe mobility, walkability, healthy living, and various modes of transportation. The RSSP is one of the three component studies of the Region's Long Range Transportation Plan and serves as the implementation plan for achieving the Region's safe mobility objective.

The RSSP builds on the Region's existing road safety programs by focusing on key areas of safety enhancement and expanding on the road safety programs most effective in reducing fatal and injury collisions. These road safety programs are intended to achieve the overall objective of reducing fatal and injury collisions by 10% within five years (by 2022), and advance the Region towards its ultimate long term vision of zero fatal and injury collisions.

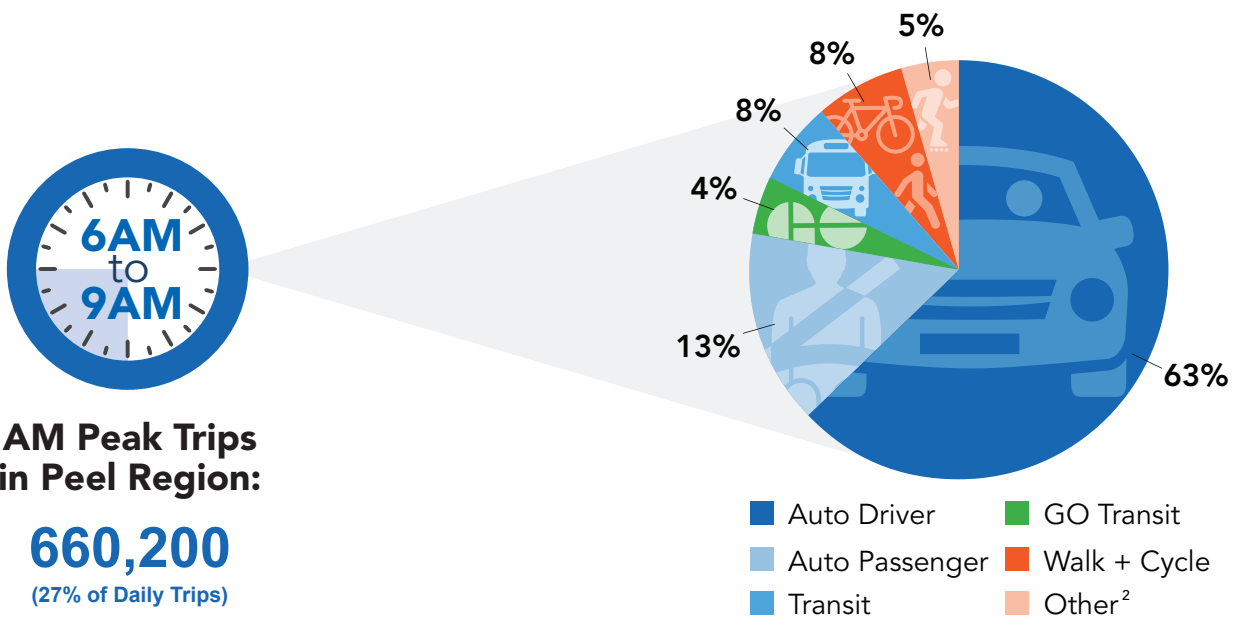


Quick Facts

Population of Peel Region Municipalities



Mode Share for the Morning Peak Period¹



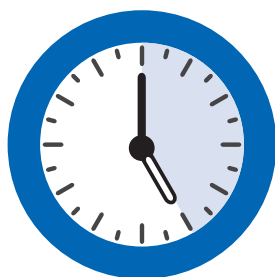
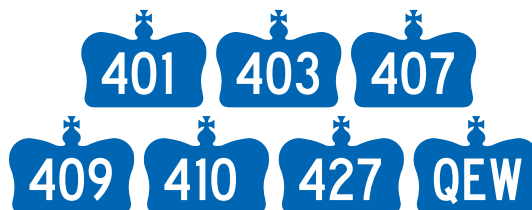
1 - Data from Peel Transportation Tomorrow Survey (TTS), 2016

2 - According to the TTS, other modes of travel include: motorcycle, taxi, school bus, and all other modes

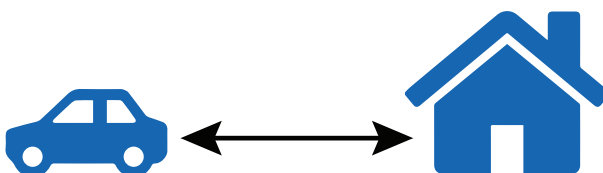
Did you know?

Seven 400-series highways

border or pass through Peel Region. These highways are among the busiest in Ontario and have contributed significantly to the Region's rapid growth.



5:00 pm is the time of day with the highest number of collisions.



5.8 household average trips per day.

Since 2012, Peel Regional Police has reported on average^{3,4} ...



34% of traffic fatalities are **Pedestrians.**



29% of traffic fatalities are **Drivers.**



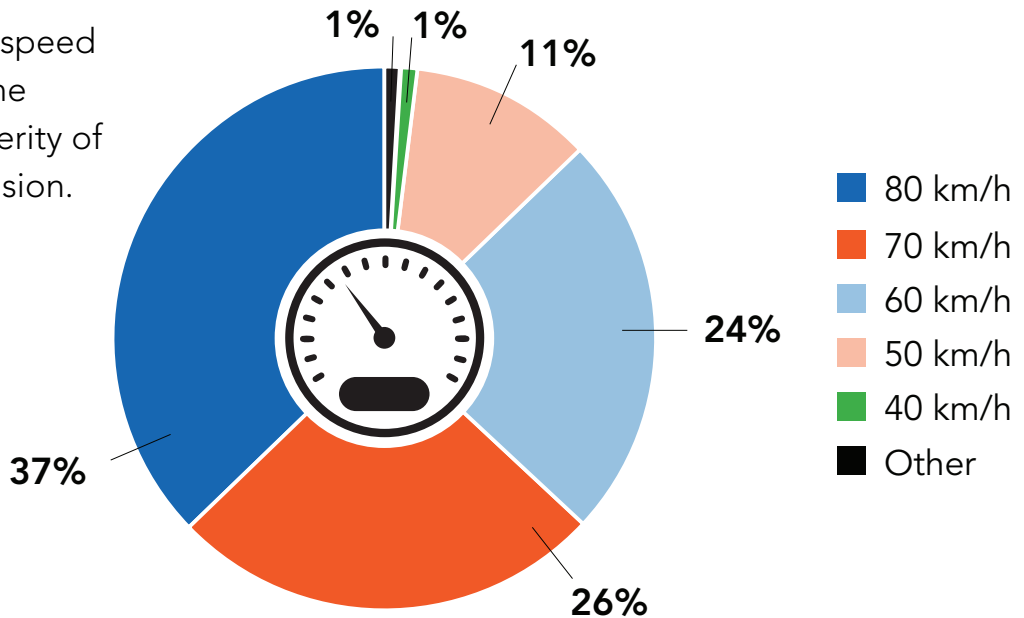
6% of traffic fatalities are **Cyclists.**

3 - <https://www.peel.police.ca/en/aboutus/trafficfatalities.asp>

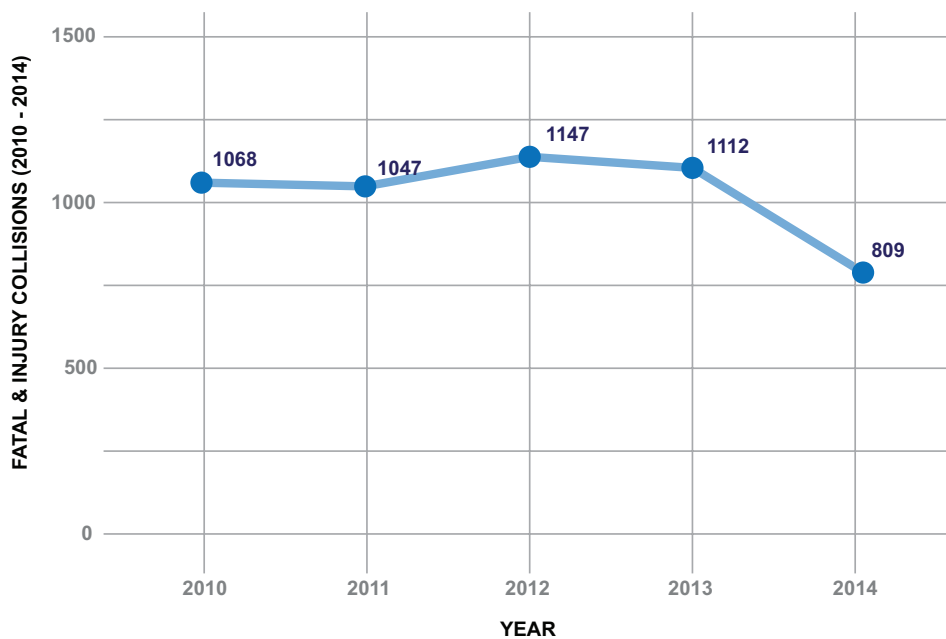
4 - The remaining 31% is comprised of motorcyclists and passengers.

Posted Speed Limits of Regional Roads

The higher the speed of a roadway, the greater the severity of a potential collision.

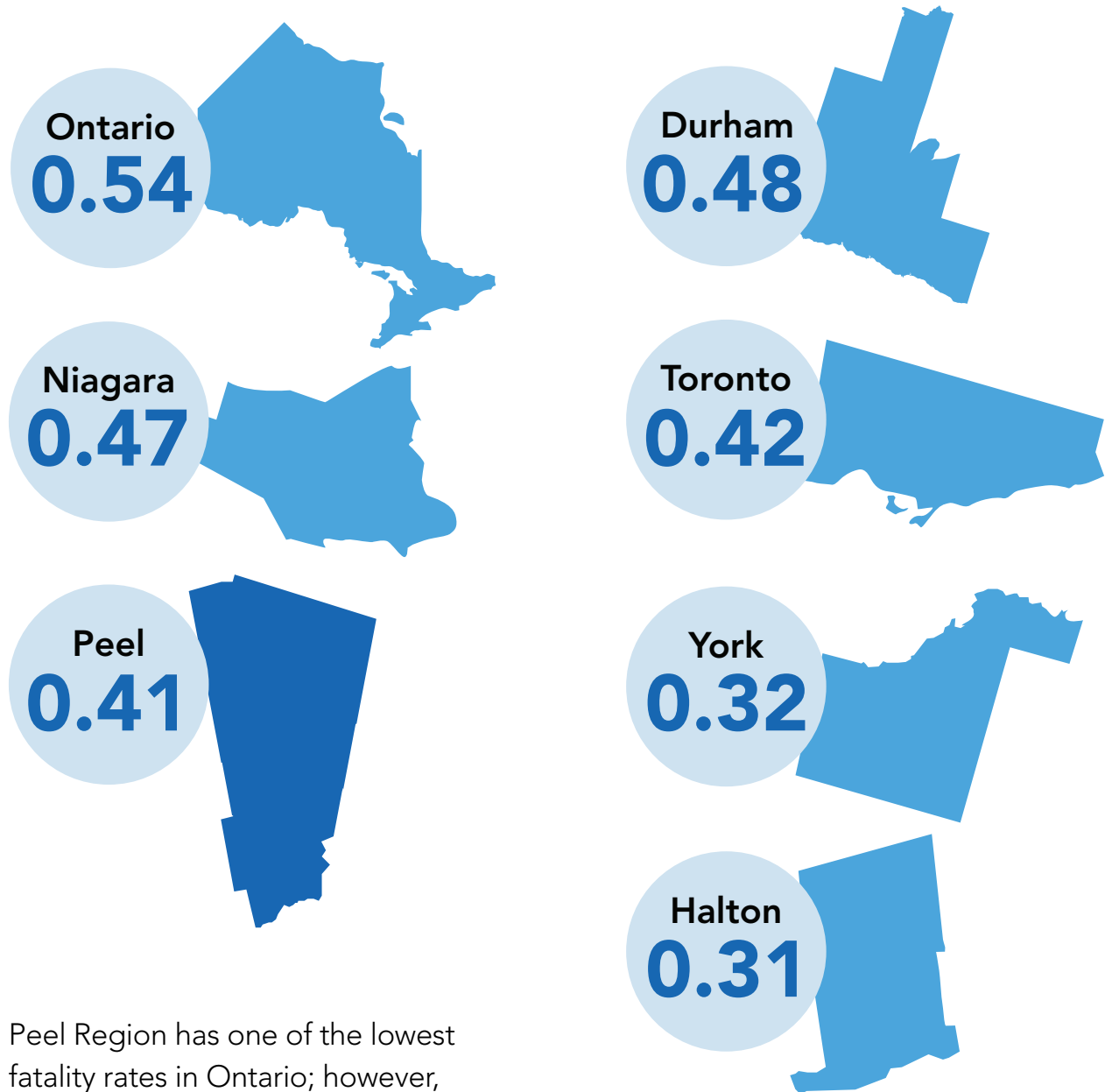


Fatal and Injury Collisions per Year on Regional Roads



NOTE: The drop in 2014 collisions is estimated to be a result of the migration to the new e-collision system. The noted drop in collision applies to each graph throughout this report.

Motor Vehicle Fatalities per 10,000 Licensed Drivers⁵



Peel Region has one of the lowest fatality rates in Ontario; however, following the philosophy of Vision Zero, **no loss of life is acceptable.**

Stakeholders



Region of Peel



Peel Regional Police



OPP



Town of Caledon



City of Brampton



City of Mississauga



Regional Municipality of York



MTO



Mississauga Cycling Advisory Committee



Brampton Transit



CAA



M.A.D.D.



Brampton Cycling Advisory Committee



Bike Brampton



Road Today



MiWay

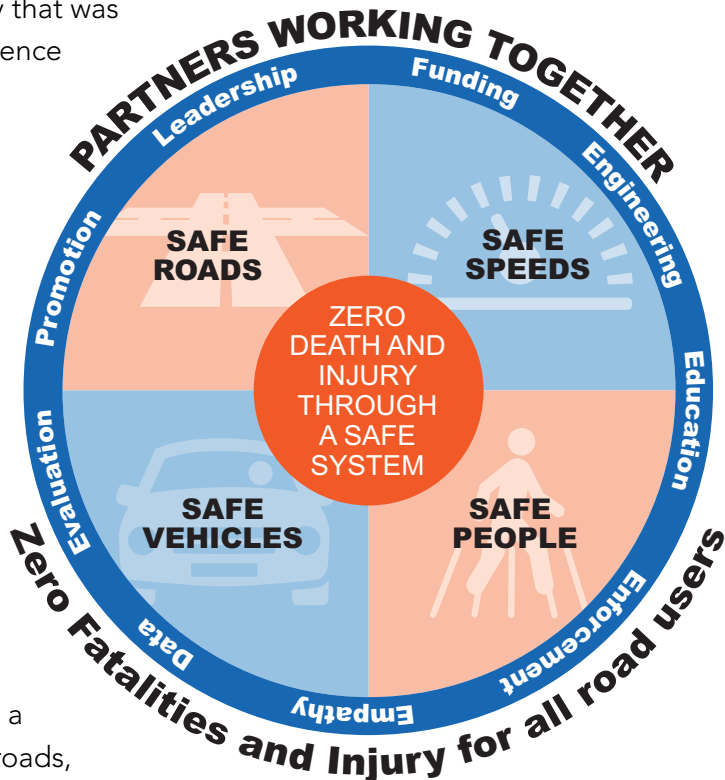
Vision Zero

Every year, more than 1 million people die in traffic-related collisions around the world. Today, traffic collisions are ranked 10th worldwide in causes of death. It is estimated that by 2030, road traffic will become the 5th largest cause of death worldwide⁶.

Vision Zero is the road safety philosophy that was introduced in Sweden in 1994. One sentence can summarize it: **No loss of life is acceptable.** Vision Zero is based on the simple fact that we are human and we make mistakes. "The road system needs to keep us moving, but it must also be designed to protect us at every turn."⁶

Road systems are allowing drivers to take risks way beyond human capabilities. Our road systems have an unclear responsibility chain; at times, victims are blamed for collisions and injuries. Drivers may be naturally prone to distraction. In order to prevent serious injuries or fatalities as a result of collisions, it is essential for the roads, and the vehicles they carry, to be adapted to match the capabilities of the people that use them. However, an effective road safety system needs to take human capabilities and limitations into account.

Based on Sweden’s success, numerous cities worldwide (such as Edmonton, Toronto, New York, Los Angeles, and others) have adopted Vision Zero to create thriving, safe, and healthy communities. Through Peel’s Vision Zero Road Safety Strategic Plan, we commit to working together to eliminate traffic deaths and make our streets safe for everyone in the Region, no matter where you live and how you choose to travel.



Vision and Goal for The Region of Peel Vision Zero Road Safety Strategic Plan



The Vision

Zero fatal and injury collisions for all road users.



The Goal

10% reduction in fatal and injury collisions by 2022.

The RSSP's vision is consistent with Vision Zero. We recognize this is an ambitious vision and will take time. The RSSP has an intermediate goal of a 10% reduction in fatal and injury collisions by 2022. Our ultimate goal is that no one should be injured or killed in Peel Region in a collision. Road safety is our top priority and this vision and goal will guide decision-making in both the short-term and long-term.

Action Plan

The 4 E's

Enhancing road safety requires a multidisciplinary, holistic, and integrated approach. The Region of Peel's Road Safety Strategic Plan contains action items that represent 4-E's of road safety:

Engineering

Physical modifications such as intersection design, traffic operations, and signage enhancements to create a safer road environment for all road users.

Education

Education involves informing individuals about the rules of the road and promoting safe behaviours in the transportation system. Educational safety programs are delivered by a wide range of organizations, including school boards, police, municipal governments, and advocacy groups. Effective, on-going education will lead to greater safety, cultural transformations, and the development of sustainable and safe road user behaviours.

Enforcement

Police are responsible for the enforcement of the Highway Traffic Act and related legislation. Enforcement encompasses four main tasks: (1) enforcing the law; (2) promoting road safety; (3) investigating incidents; and, (4) patrolling. Effective enforcement and education go hand-in-hand towards transforming the road user safety culture.

Empathy

The Empathy initiative approaches road users holistically, aiming to develop a better understanding of different perspectives toward a culture of mutual tolerance and respect, and a safer road environment. A cultural transformation is complementary to the education initiative.

Road Safety Strategic Plan Emphasis Areas

Emphasis areas consist of types of collisions identified as primary safety concerns through public consultation and review of Regional and local municipal collision data. Some of these emphasis areas are a group of collisions. For example, aggressive driving may include driver actions such as following too close and speeding.

The public consultations consisted of information sessions and online surveys to obtain resident feedback on road safety issues in the Region of Peel. The collision data analysis focused on fatal and injury collisions because they are more severe in nature, have a higher societal cost, and have longer lasting health effects for those involved. Below are the six emphasis areas that were determined for the Peel Region Road Safety Strategic Plan.

Awareness areas are different than emphasis areas as they were not determined by collision data; they were identified by the public as safety concerns and are consistent with the Region's Strategic Plan and Long-Range Transportation Plan.



1. Intersections



2. Aggressive Driving



3. Distracted Driving



4. Impaired Driving



5. Pedestrians



6. Cyclists

Awareness Areas:



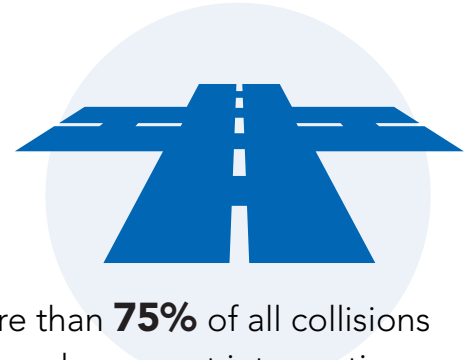
Trucks: selected because they account for, on average, of 25% of the total vehicular volume on Regional roads.



School Zones: selected to ensure safety in and around school zones.

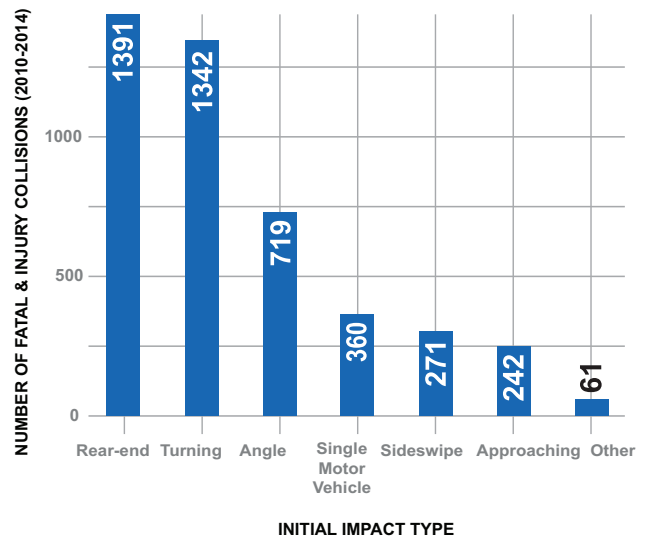
Emphasis Area 1: Intersections

Intersection collisions include collisions occurring within an intersection. Rear end collisions are the most common type of collision occurring at intersections, followed by collisions due to turning movements.



More than **75%** of all collisions happen at intersections.

Intersections – Fatal and Injury Collisions



Action Plan (Countermeasures):

- **Actuated Advance Warning Beacons:** Use to indicate to motorists that they are approaching an intersection and they should do so with caution.
- **Street Lighting Improvements:** Provide street lights for increased night time illumination.
- **Sightline Clearing/Sight Distance Improvements:** Improve visibility at intersecting roadways.
- **At-Grade Rail Crossing Audits:** Inspection of level railway crossings to ensure they meet safety regulation and standards.

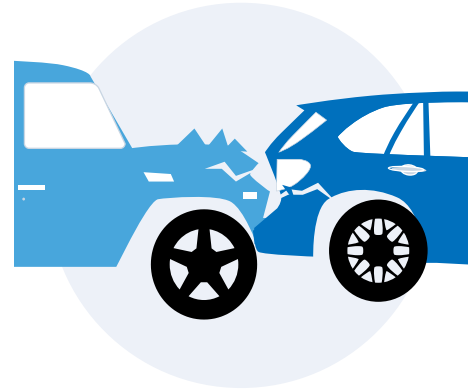
- **Pavement Marking Improvements:** Enhanced pavement markings such as guidelines at intersections, 3D lane reduction arrows, 3D right/left turn arrows, and yield pavement markings.
- **High Friction Pavement:** Implementation of high friction pavement to reduce collisions at locations based on "run off the road" Single Motor Vehicle collisions on curves, or rear-end collisions at stop or signal locations.
- **U-Turn for Access Control:** Create median openings with signed or signalized U-turn permitted locations away from congested locations.
- **Traffic Signal Network Progression:** Review of traffic signal system operation to improve flow of traffic, therefore reducing stops and rear-end collisions.
- **Roundabouts:** Assess potential conversions of existing intersections to roundabouts or installation of new roundabouts.
- **Roundabout Education:** Public education and outreach to inform road users of the correct ways to use a roundabout.
- **Fully Protected Phasing:** Provide a designated left turn phase where vehicles can only make a left turn on a green arrow.
- **Queue Jump Lanes:** Dedicated lanes which allow transit vehicles to by-pass existing traffic stopped at a red traffic signal.



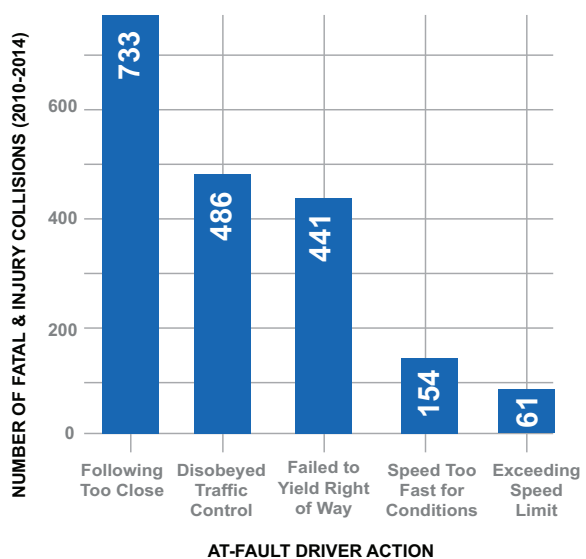
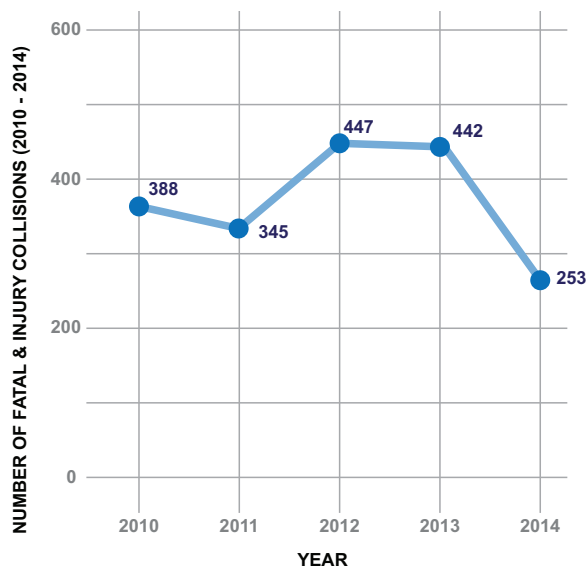
Please Note: This is not a complete list of safety programs. This is a sample list of existing programs that are being expanded or new programs that will be implemented in the Region of Peel. Visit our website at www.peelregion.ca/pw/transportation/residents/road-safety-strategic-plan.htm for more information.

Emphasis Area 2: Aggressive Driving

Aggressive driving collisions involve a driver following too close, disobeying traffic control, failing to yield the right of way, or speeding. In the Region of Peel, following too close is the number one contributor to the aggressive driving collisions that result in rear-end collisions.



Aggressive Driving – Fatal and Injury Collisions



Action Plan (Countermeasures):

- **Electronic Radar Speed Signs:** The use of electronic radar speed signs to remind motorists about the posted speed or the speed they are traveling (Vehicle Activated Traffic Calming Signs (VATCS), feedback speed signs, or speed trailers).
- **ERASE:** Eliminate Racing Activities on Streets Everywhere program by Police.
- **Red Light Cameras:** Installation of a camera at an intersection to discourage red light running.

- **Traffic Calming:** Short-term enhancements to the roadway such as pavement markings, permanent/temporary speed cushions, bollards, lane reduction arrows, narrow width of road, enhanced signage, and pavement markings. Long-term enhancements such as curb works, rumble strips, reduced lane widths, bump-outs, islands, chicanes, and speed cushions.
- **Road Watch:** Promotion of the Road Watch program through website, social media, promotional literature, and road signage.
- **Community Safe Zones:** Develop a policy and implement community safety zones in areas where there is a risk for pedestrians.
- **Automated Speed Enforcement:** An electronic device that photographs the license plate of a speeding vehicle and sends the registered owner a citation. This countermeasure is to be implemented in school zones and community safety zones only.
- **Operation Corridor:** 24 hour high visibility enforcement and education campaign that focuses on the aggressive driving of trucks.



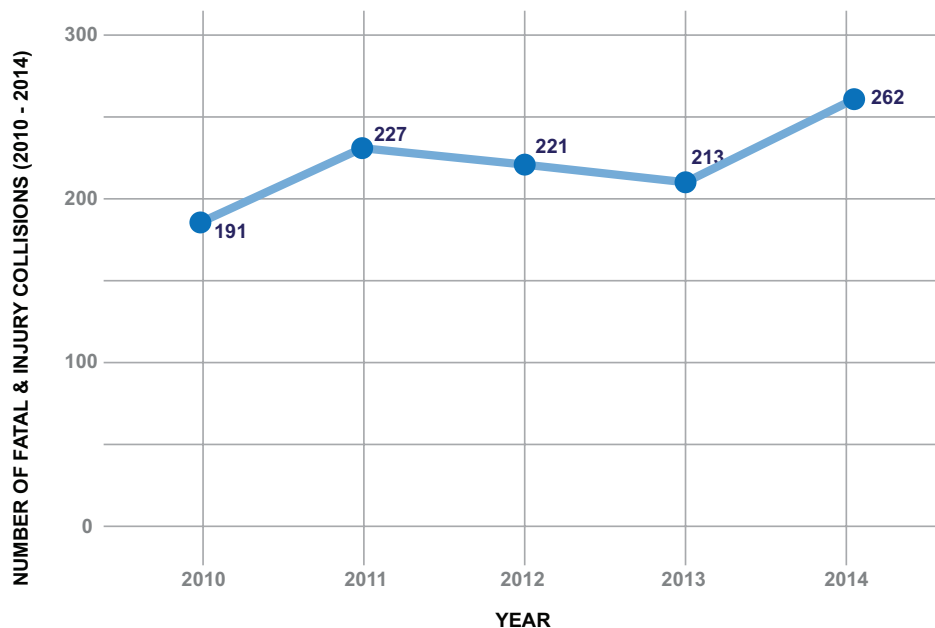
Emphasis Area 3: Distracted Driving

Distracted collisions are collisions where a driver was inattentive (for example, talking on the phone, texting, eating, etc.). Human factors plays a large role in the cause of distracted driving collisions.



Fatal/injury collisions that were caused by distracted driving have increased by **37%** from 2010 to 2014 in Peel Region.

Distracted (Inattentive) Driving – Fatal and Injury Collisions



Action Plan (Countermeasures):

- **Safety Edge:** Angled slope at the edge of rural roads, which allows easier transition from gravel shoulder to paved roadway.
- **Operation Impact:** Peel Regional Police and Ontario Provincial Police – Caledon Detachment focus their efforts on various traffic initiatives to increase traffic safety. Reduces serious injuries and fatalities through increased public awareness and compliance with traffic safety laws.
- **Distracted Driving Campaign:** Education and enforcement campaign targeted at distracted driving.

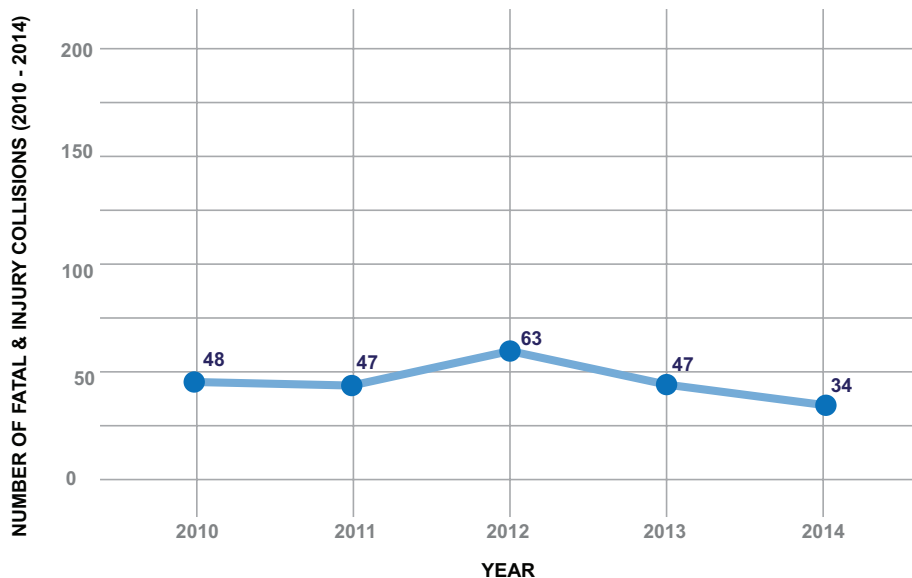
Emphasis Area 4: Impaired Driving

Impaired driving collisions are collisions involving at-fault drivers who are under the influence of alcohol or drugs. In Canada, it is a criminal offence to drive with a blood alcohol content (BAC) of .08 percent or more. Impairment begins as soon as you start drinking and affects your thinking, judgment, perception, and reaction time.



Impaired driving is the leading criminal cause of death and injury in Canada.

Impaired Driving – Fatal and Injury Collisions



Action Plan (Countermeasures):

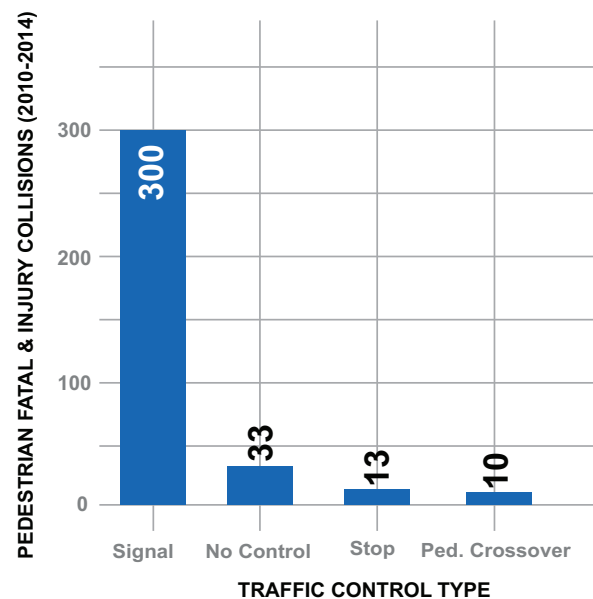
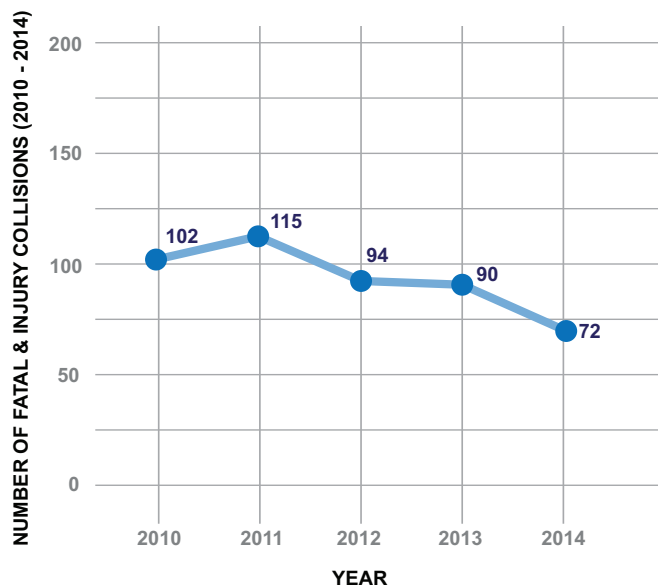
- **R.I.D.E.:** A program to “Reduce Impaired Driving Everywhere”. In addition to the yearly R.I.D.E. program, the department also operates a Festive Season R.I.D.E., which operates every day from the end of November to the beginning of the New Year.
- **M.A.D.D. 911 Campaign:** A Canada-wide campaign to encourage and empower the Canadian public to report suspected impaired driving by calling 911.
- **DriveSafe Campaign:** A yearly campaign initiated by the Ontario Association of Chiefs of Police on a specific road safety issue. The 2018 DriveSafe campaign warns the public that the legislation and regulation of cannabis requires motorists to take extra care on the roads.

Emphasis Area 5: Pedestrians

Pedestrian collisions involve a motor vehicle and a pedestrian. Pedestrian collisions occur at intersections, mid-blocks, pedestrian crossovers (PXO), on the sidewalks or shoulders, at a driveway, and other instances where the pedestrian is walking with or without the right-of-way.



Pedestrian – Fatal and Injury Collisions



Action Plan (Countermeasures):

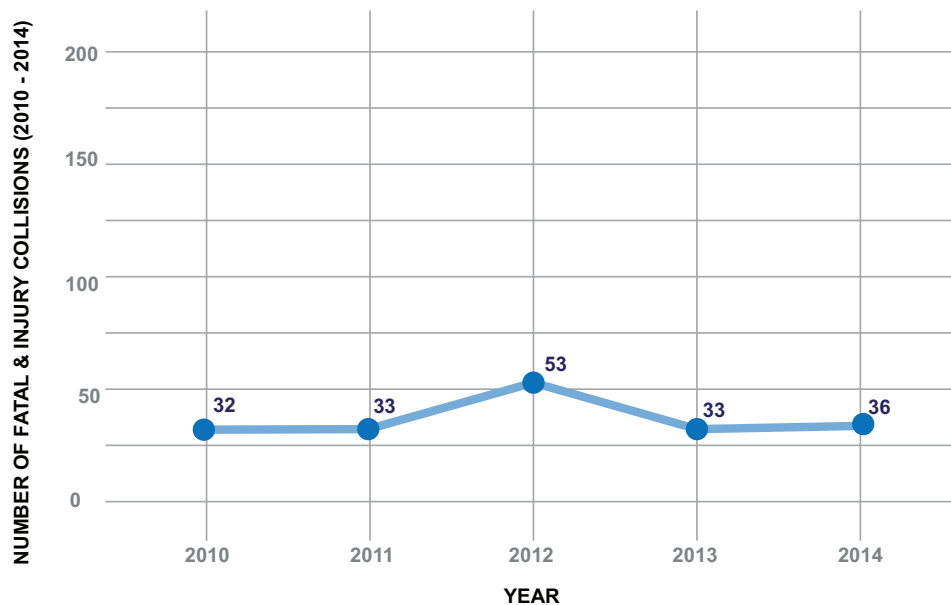
- **Ladder Crosswalks:** Replace traditional two line crosswalks with ladder design crosswalks.
- **Accessibility for Ontarians with Disability Act (AODA):** Installation of infrastructure to comply with the AODA such as accessible pedestrian pushbutton, signal units, and tactile warning strips.
- **Midblock Pedestrian Crossings:** A controlled pedestrian crossing between two intersections.
- **Leading Pedestrian Intervals:** A specific signal phase which allows pedestrians to start walking before vehicular movements begin.

Emphasis Area 6: Cyclists

Cyclist collisions involve a motor vehicle and a person riding a bicycle. The number of people riding their bicycles for work or leisure is continuing to increase. Cycling contributes to a more healthy community and the Region is committed to providing a safe environment for cyclists.



Cyclist – Fatal and Injury Collisions



Action Plan (Countermeasures):

- **Crossrides:** A dedicated space, identified by unique pavement markings, for cyclists to legally ride their bicycle across a roadway without dismounting.
- **Bike Box:** The bike box is a space in the intersection (often painted a different colour, like green) that allows cyclists to position themselves ahead of vehicle traffic at an intersection.
- **Urban Shoulders:** Urban shoulders are the same width as a bicycle lane, but are not used just for bicycles – they can also be used for on-street parking. Urban shoulders are typically implemented as an interim measure to provide a local cycling connection to area schools, businesses, trails, and recreation centers.

Vision Zero Task Force



Traffic safety must be a top priority for the Region of Peel and its partner agencies. Road safety must be integrated into the decision making process. As an outcome of this plan, we will create a Vision Zero Task Force. The Vision Zero Task Force will consist of members from local municipalities, the Region, elected officials, police, and other stakeholders. A primary goal of the Vision Zero Task Force is to develop a regional traffic safety culture. Developing a traffic safety culture means – to create a social climate in which traffic safety is highly valued and rigorously pursued. The goal of developing a traffic safety culture is to ensure traffic safety is a part of every transportation-related decision.

The Task Force will primarily commit to greater safety for all road users by:

- Leading the implementation of the action plan
- Securing funds for the implementation of countermeasures
- Measuring effectiveness of the action plan
- Modifying and adapting the action plan as needed
- Collaborating with all partners and establishing new partnerships
- Researching emerging safety technologies and advancements in the field of road safety
- Being the voice of Vision Zero and traffic safety for the Region

“ In every situation a person might fail, the road system should not. ”
– Core principle of Vision Zero

Moving Forward

The Region of Peel Vision Zero Road Safety Strategic Plan provides a strategy to address the Region of Peel's specific road safety challenges and builds partnerships to work towards the common goal of improving road safety. While road safety is recognized as a top priority for the Region of Peel and the partner agencies, this is not sufficient. Road safety must be integrated into the decision-making process throughout the Region, local municipalities and agencies that are involved with the road system. Moving forward, the first step is to establish the Vision Zero Task Force. In Peel Region, all decisions must be supported by facts and data. The Region will conduct rigorous analysis of collision and other relevant data to identify locations and areas suitable for each countermeasure included in the plan. The implementation of countermeasures are coordinated and monitored by the Vision Zero Task Force.



The Vision Zero Task Force will monitor and evaluate the effectiveness of the plan and the implemented countermeasures. If the reduction of fatal and injury collisions is not on track to achieve the goal of the plan, the Task Force will adjust and reallocate the resource. If a countermeasure is deemed ineffective, the countermeasure can be adjusted or ceased from further implementation and resources can be allocated to the countermeasures which are found to be more effective.


The RSSP is an ongoing process and requires dedication, time, and resources from each partner agency to ensure that we reach our goal. The RSSP also requires commitment from the public, as safety is a shared responsibility. No matter how we choose to travel – by car, bike, transit, or walking – we all have a right to a road system that is safe and inclusive for everyone.

Stay Connected

See the latest road safety updates through the Region's website and social media pages.

The Road Safety Strategic Plan is an ongoing process and will be updated continually with new goals and new action plans.



 www.peelregion.ca/pw/transportation/residents/road-safety-strategic-plan.htm

