

2017 Annual Collision Statistics Report



TRANSPORTATION SERVICES


York Region





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Introduction

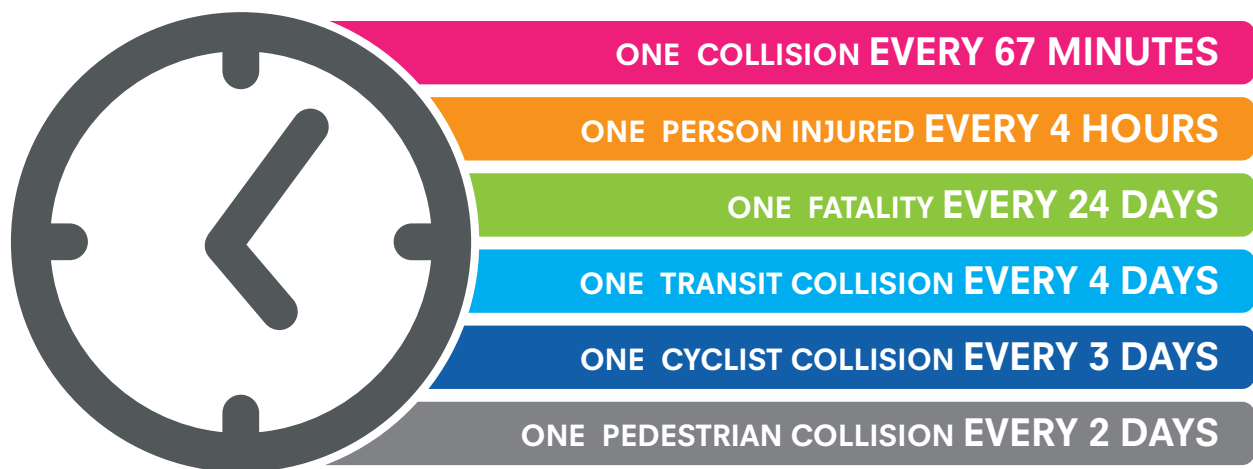
First published in 2014, the 2017 Annual Collision Statistics Report (4th edition) contains general information and collision statistics that occur on York Region roads. The report primarily includes data collected for the years 2014 to 2016. The collision data does not include collisions that occur on local municipal roadways, as each Municipality collects their own collision data.

The Annual Collision Statistics Report provides a detailed breakdown of traveller experience on Regional roads, using collision statistics and other data such as traffic volume, weather and population. The objective of the report is to provide York Region residents with an understanding of road safety trends on Regional roads. Using motor vehicle collision reports from York Regional Police, collision data is highlighted and analyzed to identify issues for specific locations as well as trends that may indicate larger issues. The report also supports the planning and execution of coordinated law enforcement and helps when developing programs to improve road safety, including public education campaigns for motorists.

Please visit www.york.ca/trafficsafety for more information..

York Region 2016 Collision Clock

York Region’s goal is to reduce collisions of all types.



Executive Summary

The Regional road network consists of approximately 4,200 lane-kilometres of urban and rural roads, 2,000 intersections and approximately 875 traffic signals. It carries more than six billion vehicle-kilometres of travel annually and more than 2.7 million vehicle trips daily.

A general overview of collision statistics on Regional roads between the years 2014 and 2016 confirms that collisions continue to occur most frequently on Fridays from the months of November to February, and during the evening rush hour (5 p.m. to 6 p.m.). The most common collisions are rear-end collisions at signalized intersections. Most collisions are a result of improper driving or driving inattentively. Consistent with past years, the majority of high-collision intersections are situated on high volume roads, such as Highway 7, Rutherford Road, Major Mackenzie Drive and Yonge Street. Collisions are a result of numerous factors that are often interconnected and unique to specific events. The following table compares collision data for the years 2014, 2015 and 2016.

Annual Comparison of Collisions

STATISTICS	2014	2015	2016
Number of Collisions	8,330	8,304	7,848
Number of Fatal Collisions	19	13	15
Number of Injury Collisions	2,195	2,101	2,239
Number of Serious Injury Collisions	55	51	50
Number of Collisions Involving Pedestrians	165	169	174
Number of Collisions Involving Cyclists	106	98	115
Number of Collisions involving Transit	127	130	97
Collision Rate Per 100,000 Population	728	712	661
Fatal Collision Rate Per 100,000 Population	1.7	1.1	1.3
Day with Highest Number of Collisions	Friday	Friday	Friday
Month with Highest Number of Collisions	January	February	November
Hour with the Highest Number of Collisions	5 to 6 p.m.	5 to 6 p.m.	5 to 6 p.m.
Most Common Collision Type	Rear-end	Rear-end	Rear-end
Most Frequently Recorded Improper Driving Action	Following too close	Following too close	Following too close
Location with the Highest Number of Collisions	Highway 7 at Jane Street	Major Mackenzie Drive West at Highway 400 off-ramp	Major Mackenzie Drive West at Highway 400 off-ramp
Percentage of Collisions Occurring at Intersections	77.6%	76.3%	76.7%
Percentage of Collisions Occurring During Winter Driving Conditions	10.7%	6.4%	6.7%

2014-2016 YORK REGION COLLISION STATISTICS

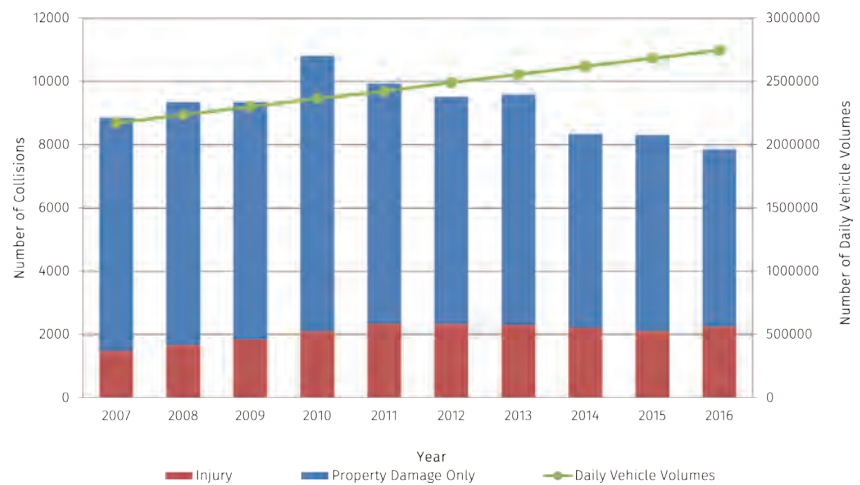
- Between 2014 and 2016 York Region's population grew by two per cent annually.
- A review of York Region's collision statistics shows the total number of collisions continues to decrease, with a 10-year low in vehicle collisions in 2016.
- Between 2014 and 2016 total collisions decreased by six per cent. During the same period, injury collisions increased by two per cent.
- Collisions with property damage only, and no injuries, account for 73 per cent of all collisions, while injury and fatal collisions account for 27 per cent of all collisions.
- Over the last three years, York Region experienced an average of 22 collisions per day.



Collision Frequency and Severity

A review of York Region's collision statistics over the last decade shows York Region is experiencing a 10-year low in total collisions, with slightly under 8,000 collisions in 2016. Between 2014 and 2016, total collisions decreased by approximately six per cent. In comparison, population grew by two per cent annually. There is a decreasing trend in total number of collisions despite traffic volumes increasing by three per cent each year. The decreasing number of collisions can be attributed to warm and mild winters, reduced precipitation and fewer winter events over the last few years.

Collision Frequency Between, 2007 and 2016



* The vehicle volumes are extrapolated using the 1996 to 2011 Transportation Tomorrow Survey results



Photo: York Regional Police Officer

While total collision statistics show a decreasing trend, injury collision statistics show an increasing trend. During 2007 and 2011, the number of injury collisions increased by approximately 12 per cent annually. This trend has remained relatively consistent since 2011, with slightly more than 2,200 injury collisions in 2016.

The number of fatal collisions has fluctuated. After York Region experienced a 10-year low in fatal collisions in 2015, with a total of 13 fatalities, 15 fatal collisions occurred on Regional roads in 2016. The 2016 fatal collision locations map is shown on the next page.

Frequency of Injury and Fatal Collisions Between 2007 and 2016

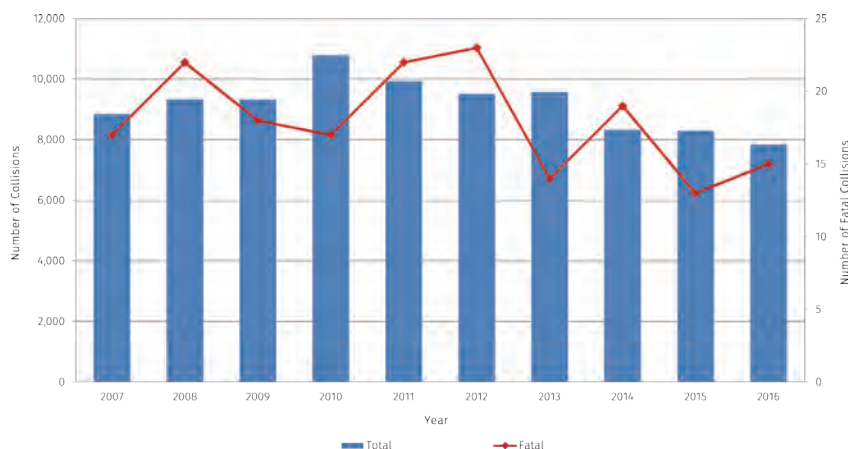


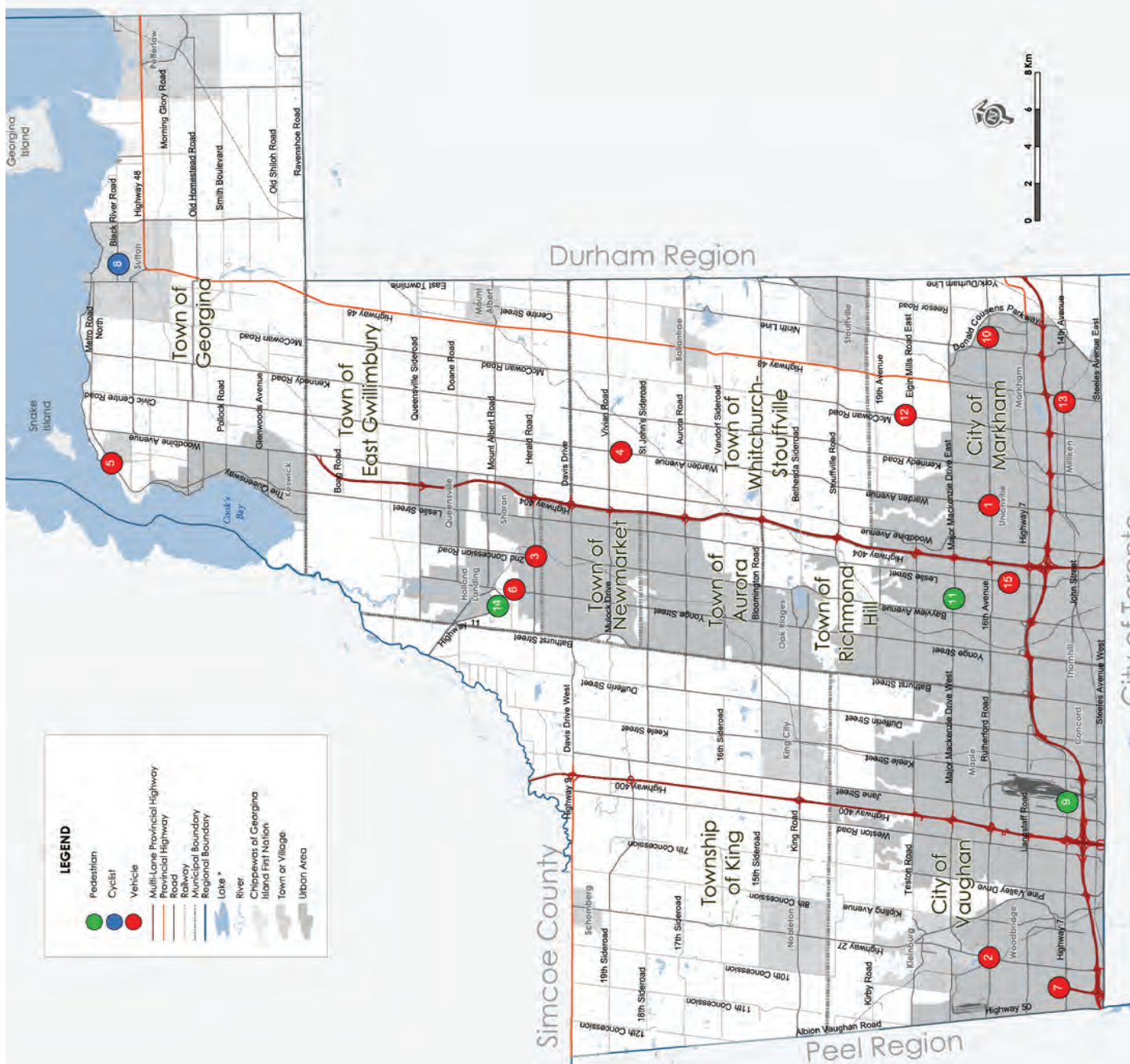
Photo: York Region Paramedic Services

- The number of fatal collisions has fluctuated over the past decade.
- There were 15 fatal collisions in York Region in 2016. Three of these involved pedestrians and one involved a cyclist.
- There were no fatal collisions involving transit in 2016.

2016 Fatal Collisions Map

- 1 16th Avenue and Warden Avenue
(January 6, 2016)
- 2 Highway 27 north of Rutherford Road
(January 13, 2016)
- 3 Green Lane and 2nd Concession Road
(January 17, 2016)
- 4 Warden Avenue south of Vivian Sideroad
(April 23, 2016)
- 5 Metro Road and Varney Road
(April 24, 2016)
- 6 18667 Yonge Street
(May 29, 2016)
- 7 Highway 427 Extension north of Highway 7
(June 25, 2016)
- 8 Black River Road west of Scotia Road
(July 6, 2016)
- 9 Highway 7 east of Creditstone Road
(August 8, 2016)
- 10 16th Avenue east of Bur Oak Avenue
(August 29, 2016)
- 11 Major Mackenzie Drive East and Frank Endean Road
(October 12, 2016)
- 12 10982 McCowan Road
(November 9, 2016)
- 13 14th Avenue west of Markham Road
(November 18, 2016)
- 14 Highway 11 south of Sherwood Glen
(November 18, 2016)
- 15 Leslie Street north of East Wilmot Street
(December 30, 2016)

*Note: No transit involved collisions resulting in fatality

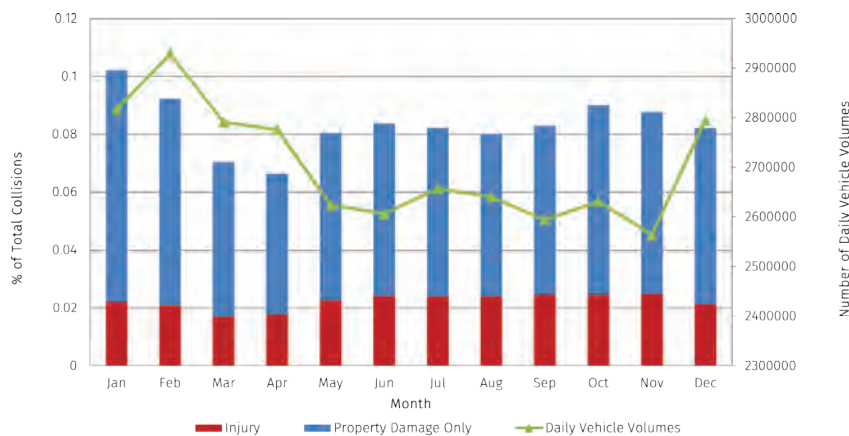


Collisions by Month, Day and Time

Collisions generally increase as traffic volumes increase. Data also indicates that collisions follow a seasonal trend with a higher number of collisions (mostly property damage-only collisions) occurring during winter months in December, January and February, despite a relatively low number of daily vehicle volumes. This can be attributed to inclement weather or challenges associated with winter driving.

The number of injury collisions represents a higher percentage of total collisions during the summer months when motorists tend to drive faster and more aggressively.

**Collisions by Month,
Three-Year Average Between 2014 and 2016**



* The vehicle volumes are extrapolated using the 1996 to 2011 Transportation Tomorrow Survey results



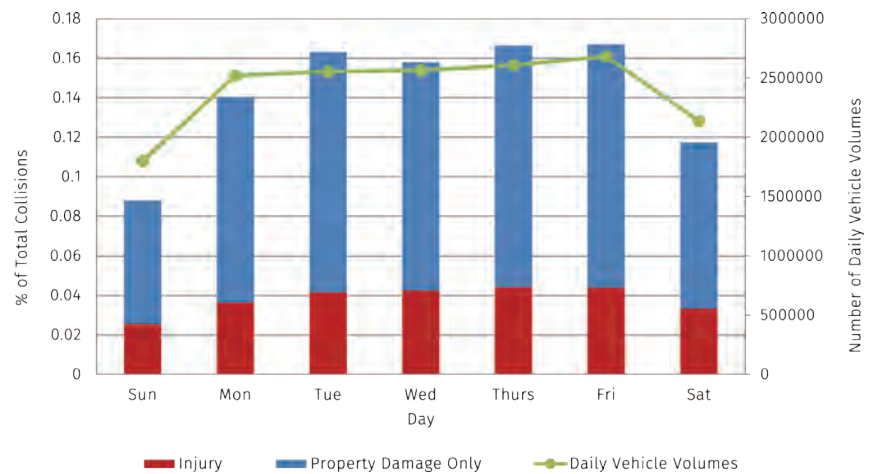
Photo: Traffic on McCowan Road, Markham

- On average, January had the highest number of collisions in the years 2014, 2015 and 2016.
- Motorists tend to drive faster and more aggressively during the summer months, resulting in a higher percentage of injury collisions, as compared to other months of the year.

- The day-of-week collision pattern correlates closely with typical day-of-week traffic volume. There are more collisions on days when people travel more.

The day-of-week collision pattern correlates closely with typical day-of-week traffic volume patterns, with the highest number of collisions occurring on Fridays.

**Collisions by Day-of-Week,
Three-Year Average Between 2014 and 2016**

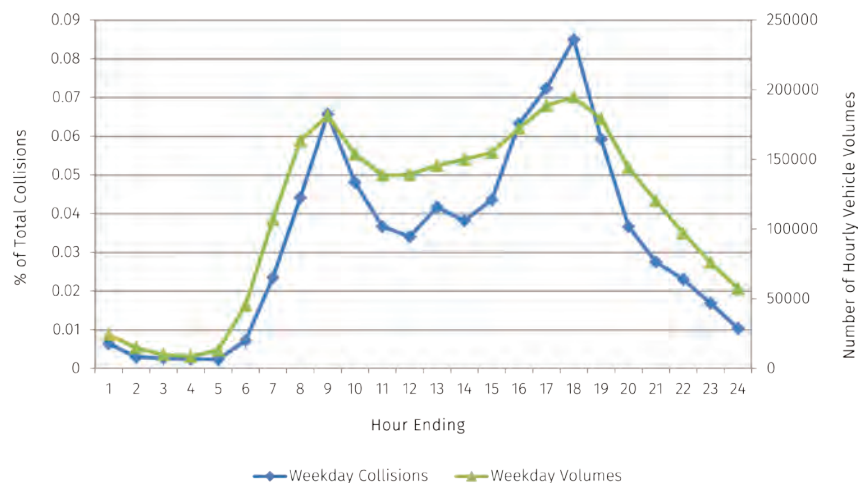


* The vehicle volumes are extrapolated using the 1996 to 2011 Transportation Tomorrow Survey results

- Weekday peak periods account for 39 per cent of all collisions.
- On average, the highest number of collisions occurred between 5 p.m. and 6 p.m. on Fridays in January during the years 2014, 2015 and 2016.

The time-of-day collision trend also correlates closely with typical daily traffic volume patterns (i.e. high numbers of collisions occur during highest traffic volume times). The highest number of collisions occurred on weekdays, between 8 a.m. and 10 a.m. and 3 p.m. and 7 p.m., accounting for 39 per cent of all collisions.

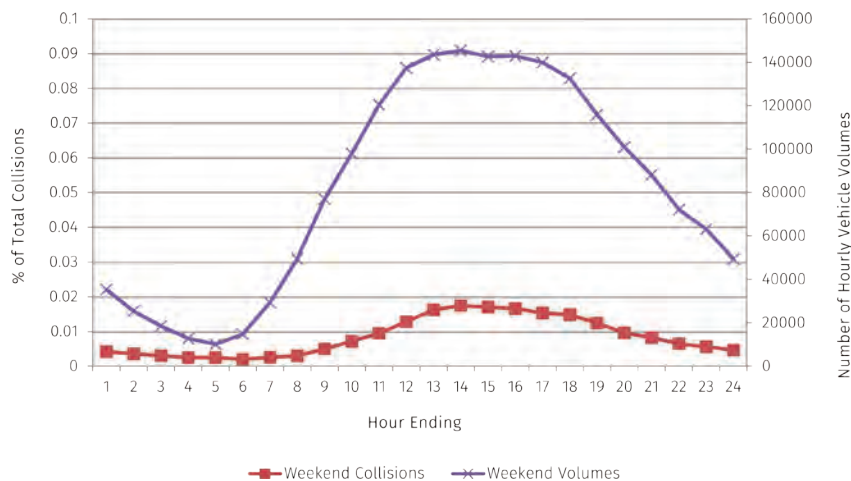
**Weekday Collisions by Time-of-Day,
Three-Year Average Between 2014 and 2016**



* The vehicle volumes are extrapolated using the 1996 to 2011 Transportation Tomorrow Survey results

Collisions were higher during the afternoon on weekends, which is consistent with the number of daily vehicle volumes.

Weekend Collisions by Time-of-Day, Three-Year Average Between 2014 and 2016



* The vehicle volumes are extrapolated using the 1996 to 2011 Transportation Tomorrow Survey results

Transportation Services Traffic Management Centre (TMC) operates Monday to Friday between 5:30 a.m. and 7:30 p.m. TMC has access and control of 160 traffic cameras and provides traffic camera access to YRP, YRT and EMS. TMC also has the ability to monitor traffic signal systems and make adjustments in real time. TMC communicates planned road closures to Regional and municipal stakeholders, as well as all emergency services, and communicates major road incidents to York Region Corporate Communications for social media updates.

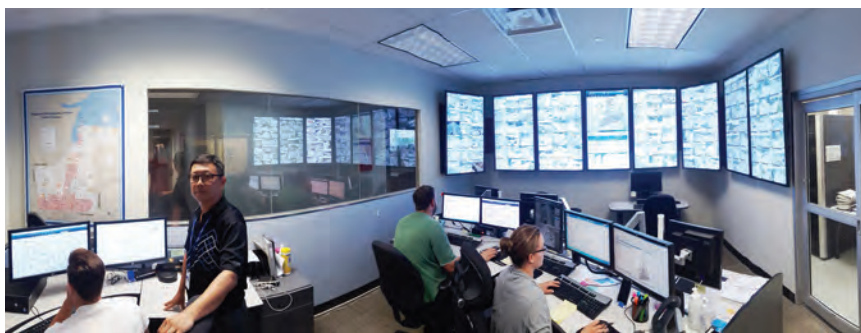


Photo: York Region Traffic Management Centre

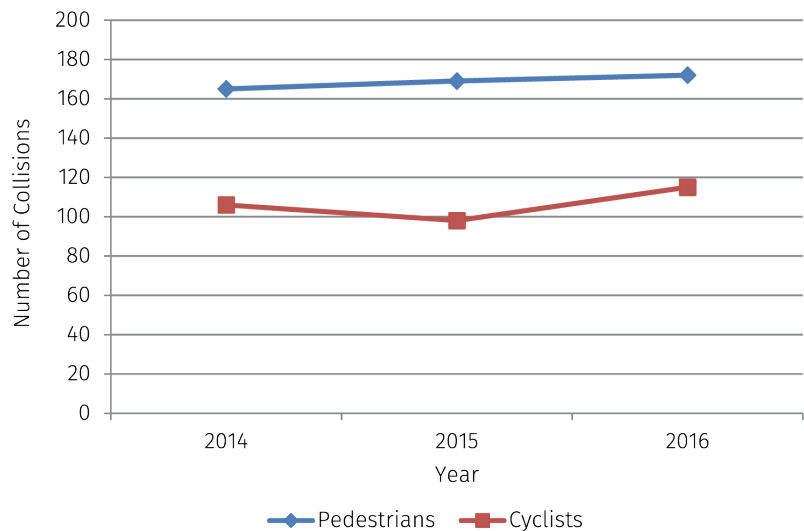
- On average, collisions were highest between 12 p.m. and 6 p.m. on weekends, which is consistent with the number of daily vehicle volumes.

- Collisions involving pedestrians have increased by five per cent over the last three years, with approximately 174 pedestrian-involved collisions in 2016.
- Collisions involving cyclists have increased by eight per cent over the last three years, with approximately 115 cyclist involved collisions in 2016.
- Education and enforcement initiatives include Always Be Careful (A.B.C.), Cross Smart, Pedestrian Safety Guide for Seniors, Cycle Smart, Motorcycle Safety and Awareness, Safe Cycling Educational Courses, Cycling maps and handbooks.

Collisions Involving Pedestrians and Cyclists

Pedestrians and cyclists are most at risk for serious injury or death when they are involved in a motor vehicle collision. Between 2014 and 2016, the number of pedestrian and cyclist-involved collisions has steadily increased as York Region continues to grow. The increase in pedestrian-involved collisions year-over-year can be attributed to use of active modes of transportation, mainly walking and taking transit.

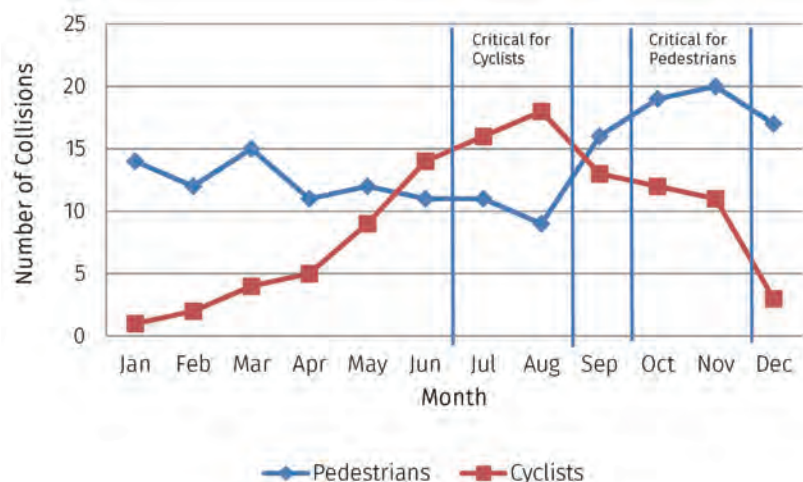
Collisions Involving Pedestrians and Cyclists,
Between 2014 and 2016



York Region continues to implement enhancements to support the pedestrian and cyclist travelling experience on Regional roads. One action is to create pedestrian-accessible intersections compliant with the Accessibility for Ontario with Disabilities Act (AODA). Recognizing the increasing demand for cycling, York Region continues to construct new cycling facilities to enhance the rider experience by providing visual separation and protection for cyclists from vehicular traffic. York Region, along with York Regional Police, and community partners and stakeholders, participate in yearly educational and enforcement initiatives to advocate for respect between all road users to help reduce the number of collisions. These pedestrian awareness programs run continuously throughout the year, and focus on creating awareness around safety issues affecting motorists and pedestrians in the spring, fall and winter. Cycling awareness programs and educational courses are emphasized in the spring and summer months.

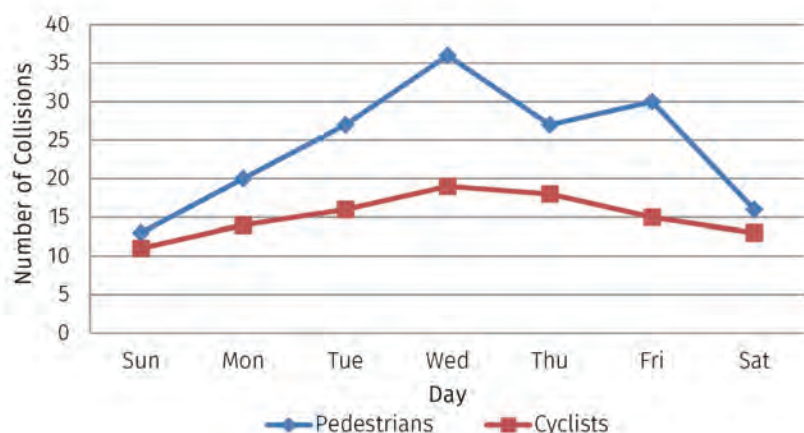
Pedestrian and cyclist-involved collisions follow seasonal trends. Pedestrian-involved collisions were highest in the fall months. This is likely related to the end of daylight savings time when clocks go back and the days get darker sooner. Pedestrians are not as visible in the late afternoon hours as compared to other times of the year, due to less daylight in the fall and dark-coloured clothing. Cyclist-involved collisions were highest in the summer months when there are more cyclist activities, creating increased potential conflicts with road users.

**Collisions Involving a Pedestrian or Cyclist by Month,
Three-Year Average Between 2014 and 2016**



The day-of-week collision pattern shows that the highest number of pedestrian-involved collisions and cyclist-involved collisions occurred on Wednesday.

**Collisions Involving a Pedestrian or Cyclist by Day-of-Week,
Three-Year Average Between 2014 and 2016**

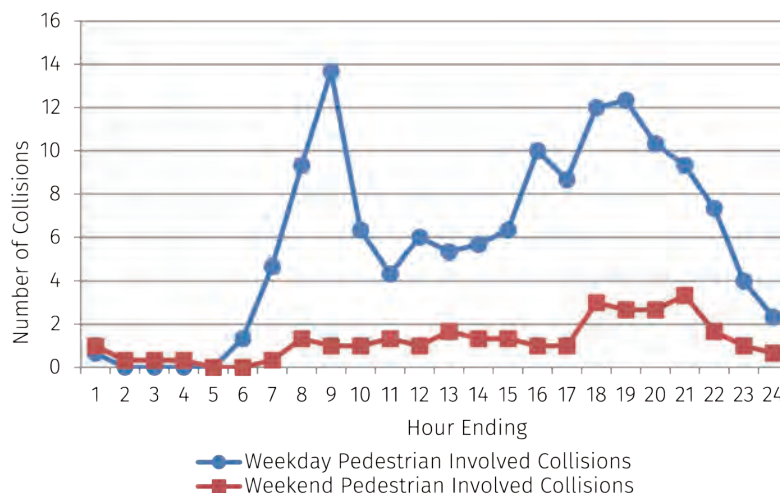


- The month of November had the highest number of pedestrian-involved collisions, likely due to the end of daylight saving time when pedestrians are not as visible in the late afternoon hours.
- Each year, York Region focuses on safety messages around daylight savings time when clocks go back and the days get darker sooner.
- The month of August had the highest number of cyclist-involved collisions, likely due to increased cyclist volumes during the summer months.
- Both the highest number of pedestrian-involved collisions and cyclist-involved collisions occurred on Wednesday.

- Pedestrian and cyclist-involved collisions occurred most often during the morning and afternoon peak periods when traffic volumes are highest.

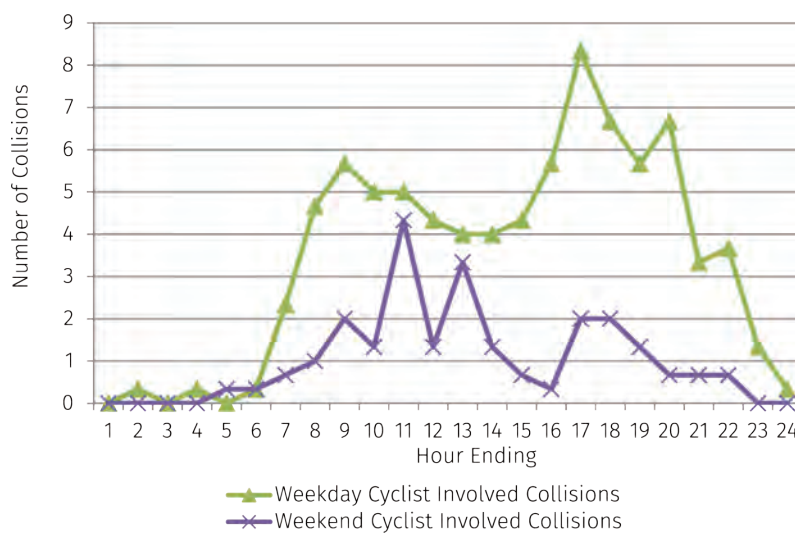
The time-of-day collision pattern shows the highest number of pedestrian-involved collisions occurred during the morning and afternoon peak hours, correlating closely with typical daily traffic volume patterns.

**Collisions Involving a Pedestrian by Time-of-Day,
Three-Year Average Between 2014 and 2016**



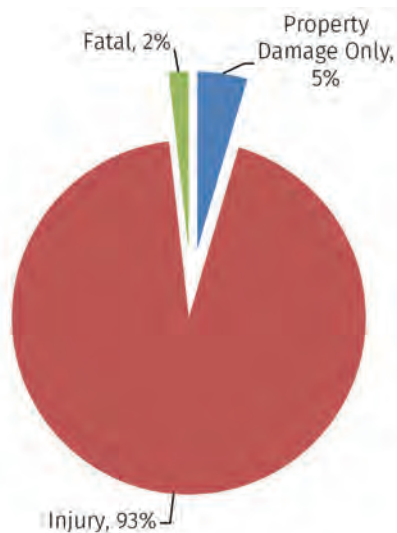
The highest number of cyclist-involved collisions also correlates closely with typical daily traffic volume patterns, occurring during the afternoon peak hours.

**Collisions Involving a Cyclist by Time-of-Day,
Three-Year Average Between 2014 and 2016**

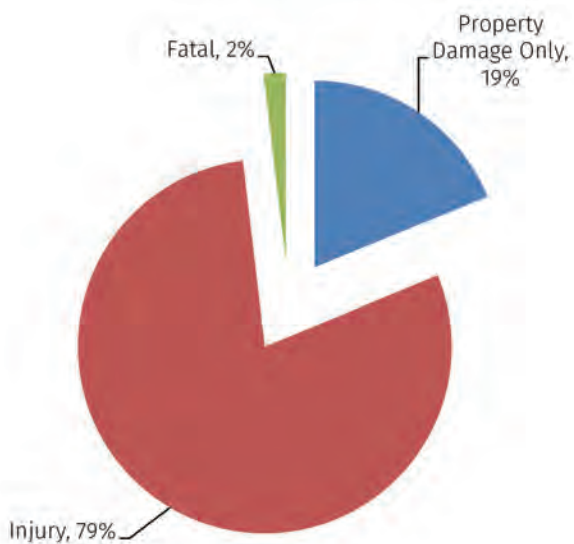


Pedestrians and cyclists are most at risk of fatal or severe injury when involved in a collision with a motor vehicle. The majority (93 per cent) of pedestrian-involved collisions resulted in injuries, and 79 per cent of cyclist-involved collisions resulted in injuries.

**Collisions Involving a Pedestrian by Severity,
Three-Year Average Between 2014 and 2016**



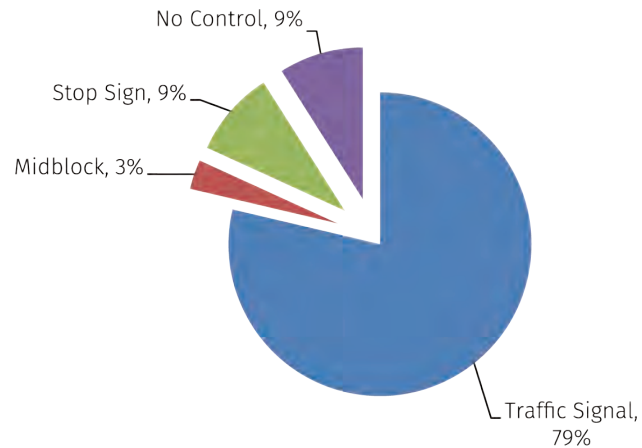
**Collisions Involving a Cyclist by Severity,
Three-Year Average Between 2014 and 2016**



- 93 per cent of pedestrian-involved collisions resulted in injuries.

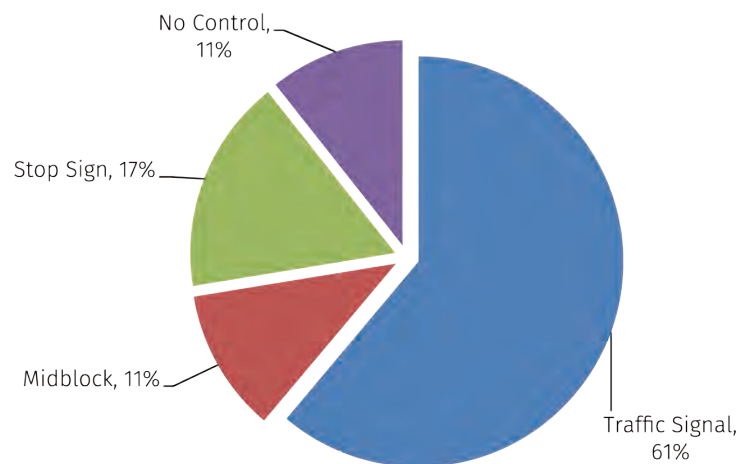
York Region continues to promote transit and more transit riders become pedestrians or cyclists for part of their trip. This increased interaction between pedestrians and vehicles increases the likelihood of collisions. The majority of pedestrian-involved collisions occur at signalized intersections, involving a turning vehicle.

**Collisions Involving a Pedestrian by Traffic Control Type,
Three-Year Average Between 2014 and 2016**



Similar to collisions involving a pedestrian, the majority of cyclist-involved collisions occurred at signalized intersections, involving a turning vehicle.

**Collisions Involving a Cyclist by Traffic Control Type,
Three-Year Average Between 2014 and 2016**



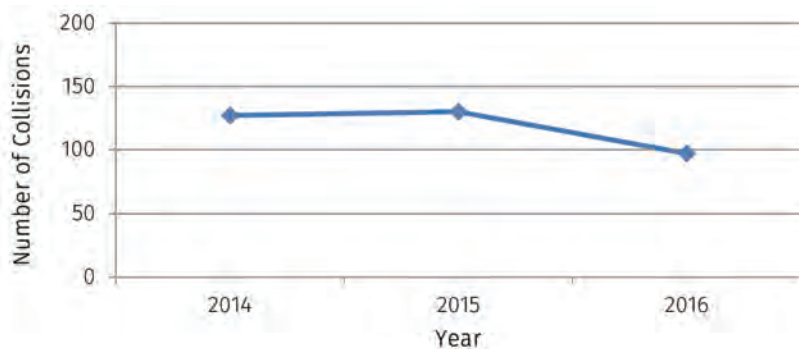
- 79 per cent of pedestrian-involved collisions occurred at signalized intersections.

- 61 per cent of cyclist-involved collisions occurred at signalized intersections.

Collisions Involving Transit

Between 2014 and 2016, the number of transit-involved collisions decreased by 23 per cent, with 97 transit-involved collisions in 2016.

Collisions Involving Transit, Between 2014 and 2016



Transit-involved collisions follow seasonal trends, with winter months being the most critical period. This is related to winter driving conditions.

Collisions Involving Transit by Month, Three-Year Average Between 2014 and 2016

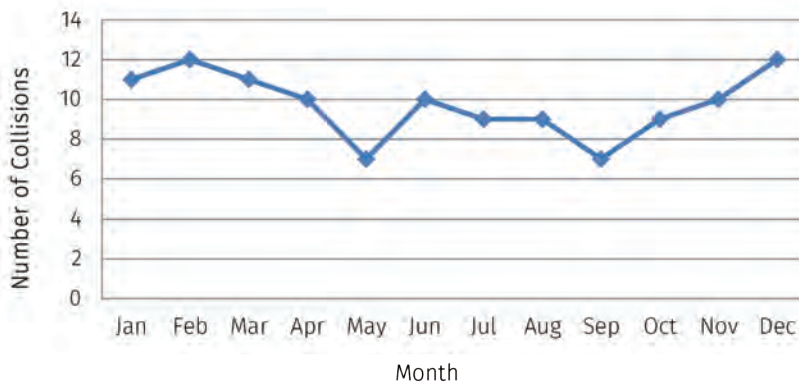


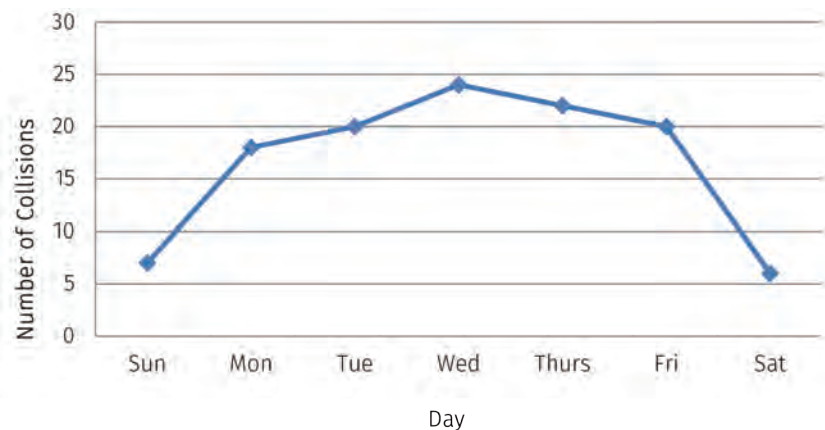
Photo: YRT Bus Stop

- York Region Transit partners with Crime Stoppers of York Region (advertised in buses/shelters) providing additional traveller resources in reporting crime.
- Building community partnerships with police, social services and educational institutions to provide needed resources as required to travellers and members of our communities.

- York Region Transit Special Constables patrol and respond to emergencies and security incidents assisting our travellers 24/7 – 365 days/year. In addition to providing security assistance to travellers, all enforcement vehicles are outfitted with automated external defibrillators (AED) and Rapidway stations and Terminals are outfitted with Emergency Call boxes (ECB).

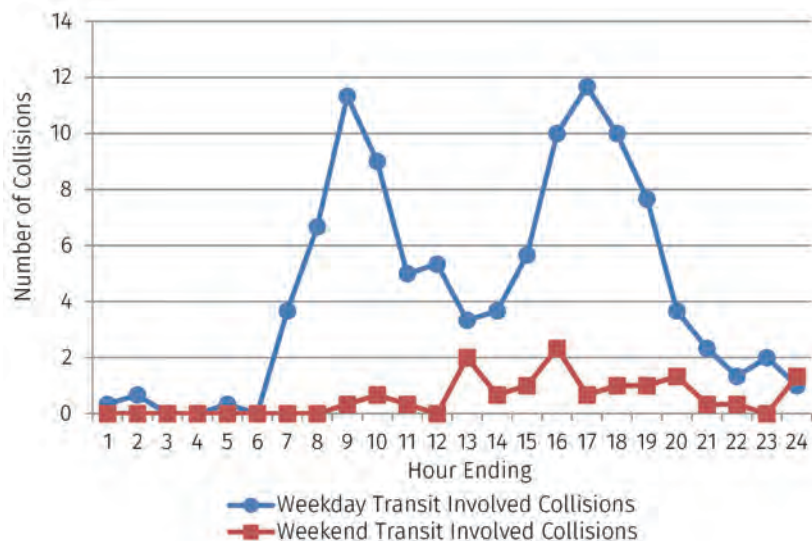
The day-of-week collision pattern also shows that the highest number of transit-involved collisions occurred on weekdays when frequent services are provided.

**Collisions Involving Transit by Day-of-Week,
Three-Year Average Between 2014 and 2016**



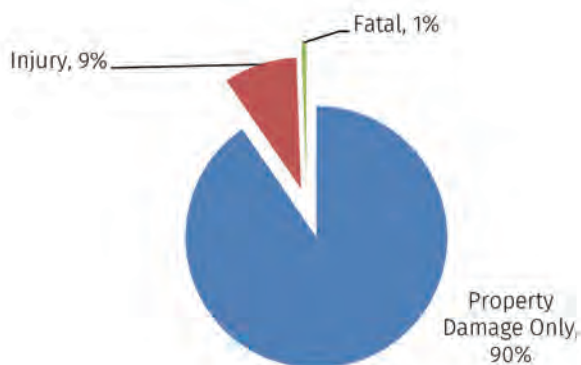
The time-of-day collision pattern shows the highest number of transit-involved collisions occurred during the morning and afternoon peak hours, correlating closely with typical daily traffic volume patterns.

**Collisions Involving Transit by Time-of-Day,
Three-Year Average Between 2014 and 2016**



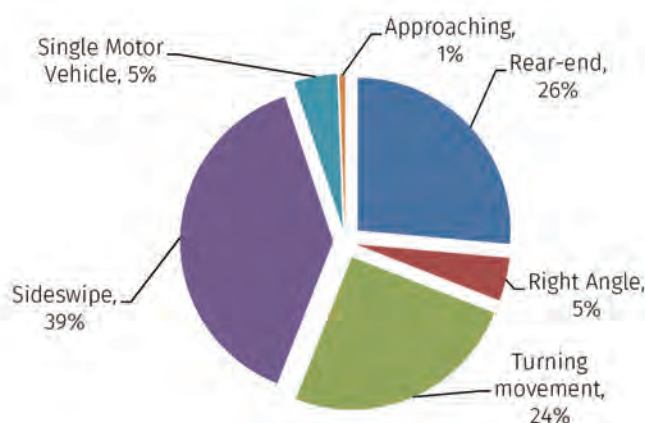
When compared to other modes of transportation, transit users are 98 per cent less likely to be involved in a collision. If they are involved in a motor vehicle collision, only 10 per cent resulted in serious injury or death.

**Collisions Involving Transit by Severity
Three-Year Average Between 2014 and 2016**



Sideswipe collisions are the predominant type of collision, representing approximately 40 per cent of all transit collisions. These collisions occur as a result of motorists driving aggressively around buses.

**Collisions Involving Transit by Impact Type,
Three-Year Average Between 2014 and 2016**



Dedicated bus rapid transit lanes reduce potential conflicts between buses and vehicles, and encourage more travellers to use public transit by offering frequent, dependable trip times. With fewer motorists on the road, public transportation also reduces collision risk.

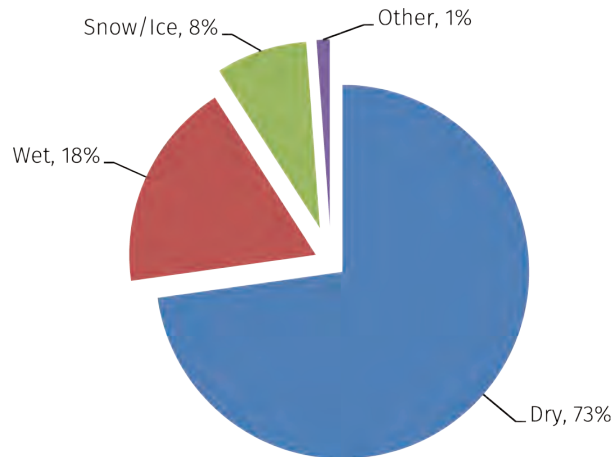
- Closed Circuit Television (CCTV) onboard buses provide for enhanced security and investigation and real time monitoring capabilities at transit properties.
- Operator Reporting Forms provide an avenue for operators to report concerns for investigation in a timely effective reporting structure.
- Customer Service provides the ability for travellers to contact customer service with safety/ security concerns that are followed-up by Enforcement Officers.

- 73 per cent of all collisions occurred during dry road surface conditions.

Collisions by Road Surface Condition

Between 2014 and 2016 the majority of all collisions, 73 per cent, occurred during dry road surface conditions; 18 per cent occurred during wet road surface conditions and eight per cent occurred during snow/ice road surface conditions. Other road surface conditions include oil, mud, gravel, etc.

**Collisions by Road Surface Condition,
Three-Year Average Between 2014 and 2016**



Although the majority of collisions occur during dry conditions, adverse weather conditions contribute to peak collision days. The top ten high-frequency collision days between 2014 and 2016 experienced a winter event, its aftermath or a significant rainfall event. The number of collisions that occurred on the highest days was more than triple York Region's average of 22 collisions per day.



Photo: 2nd Concession, East Gwillimbury

Top Ten Days that Experienced the Most Collisions Between 2014 and 2016

DATE	DAY	NO. OF COLLISIONS	RAIN (mm)	SNOW (cm)	AVERAGE TEMP. (°C)
February 21, 2015	Saturday	73	-	9.0	-12.5
January 29, 2015	Thursday	67	0.3	8.1	-3.7
January 24, 2014	Friday	66	-	0.8	-15.6
March 12, 2014	Wednesday	65	-	18.4	-6.3
October 31, 2014	Friday	63	12.5	-	3.3
February 1, 2014	Saturday	56	-	16.5	-3.8
December 11, 2014	Thursday	54	-	22.0	-5.2
January 27, 2014	Monday	52	-	2.2	-11.4
February 2, 2015	Monday	52	-	9.8	-14.1
January 28, 2014	Tuesday	51	-	-	-15.8

York Region and York Regional Police conduct seasonal campaigns focusing on education and enforcement during winter months. York Regional Police conduct high-profile, high-visibility enforcement 24 hours prior to when inclement and adverse winter weather conditions are anticipated. York Regional Police are on the alert for motorists who have not adjusted their driving for weather during the winter months, such as careless driving, driving too fast for weather conditions, driver inattentiveness, speeding, unsafe lane changes, following too close and no clear view. York Regional Police also help to promote snow plow safety through education and enforcement throughout the winter months.

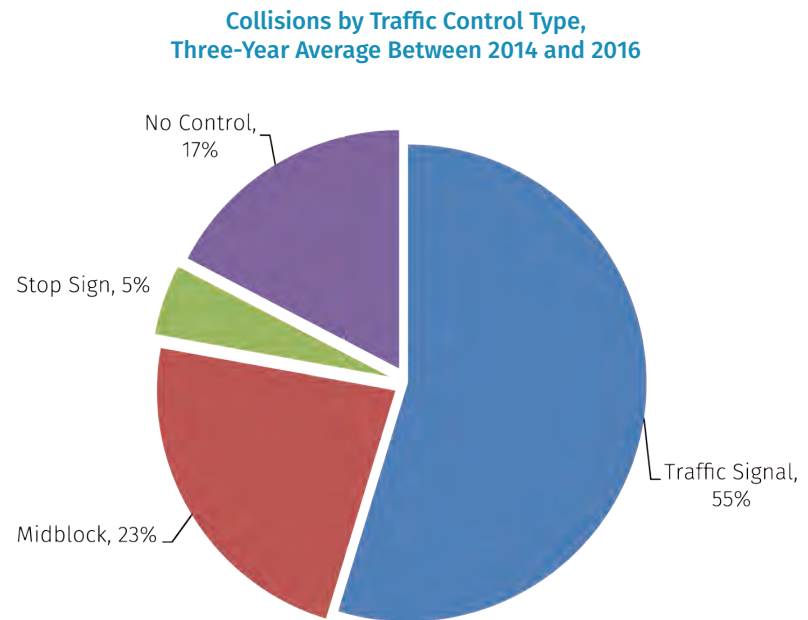
In addition, York Region provides enhancements in technology in the winter maintenance program to ensure timely response and application to changing road conditions to help improve winter driving conditions.

- Top ten high-frequency collision days occurred during an adverse weather event.
- York Regional Police are on the alert for motorists who have not adjusted their driving for weather conditions.
- York Region provides enhancements in technology in the winter maintenance program to ensure timely response and application to changing road conditions to improve winter driving conditions.

- 55 per cent of all collisions occurred at signalized intersections.
- Since 2014, York Region has installed new traffic signals at 36 intersections.

Collisions by Traffic Control Type

Fifty-five per cent of all collisions occurred at signalized intersections.



As traffic continues to increase across York Region, there are increasing requests and demands for new traffic and pedestrian signals to facilitate access to local communities, balance movements on major corridors, manage congestion and enhance travel. York Region has installed new traffic signals at 36 intersections since 2014.

While the benefits of traffic signals are well-documented, there are trade-offs that need to be considered prior to installation. From a safety perspective, installation of traffic signals may prevent some types of collisions at an intersection; however, they often increase the number of rear-end collisions.

York Region installs new traffic signals only when an intersection meets the criteria in York Region's Traffic and Pedestrian Signal Policy. The policy states that the intersection requires thorough analysis and careful consideration of all the trade-offs using engineering tools and data.

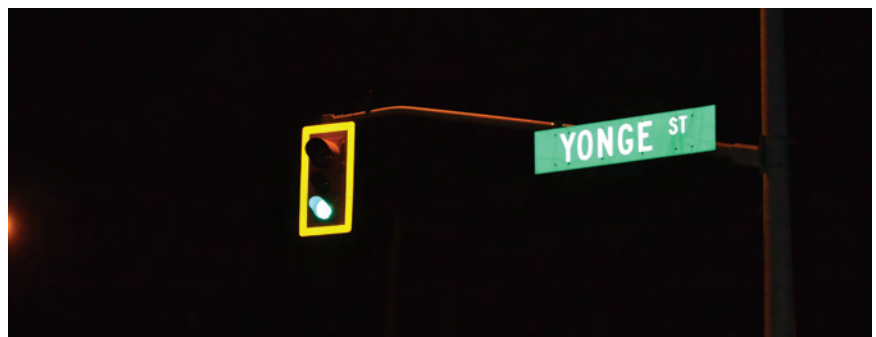


Photo: Reflective Traffic Signal

Collisions by Initial Impact Type

Rear-end collisions were the most common type at signalized intersections. Rear-end collisions can occur due to driver inattention or distraction, tailgating or acts of aggressive driving. Rear-end collisions are considered “low severity” as they have a lower injury rate compared to right-angle or turning movement collisions. Right-angle and turning movement collisions at intersections are considered “high severity” as they are most likely to result in serious injury to vehicle occupants. Two per cent of all collisions were recorded as “other” and were excluded from the chart below.

Collisions by Initial Impact Type,
Three-Year Average Between 2014 and 2016

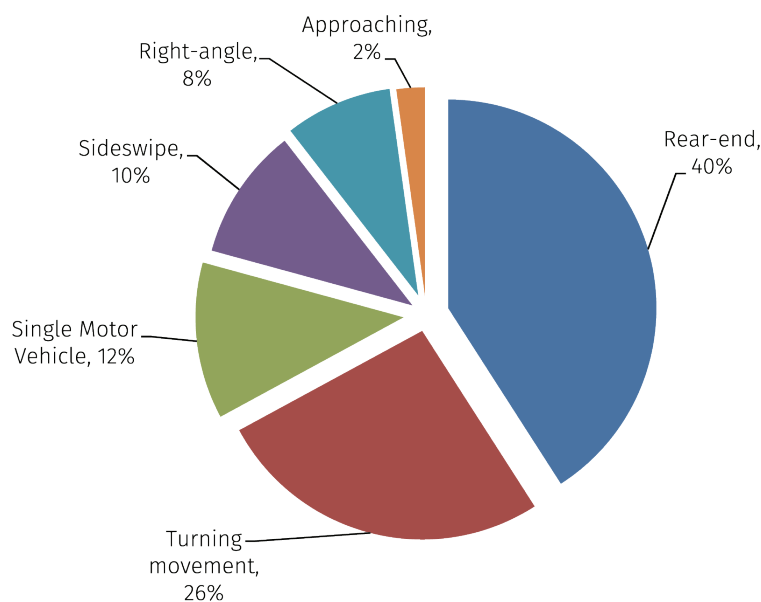


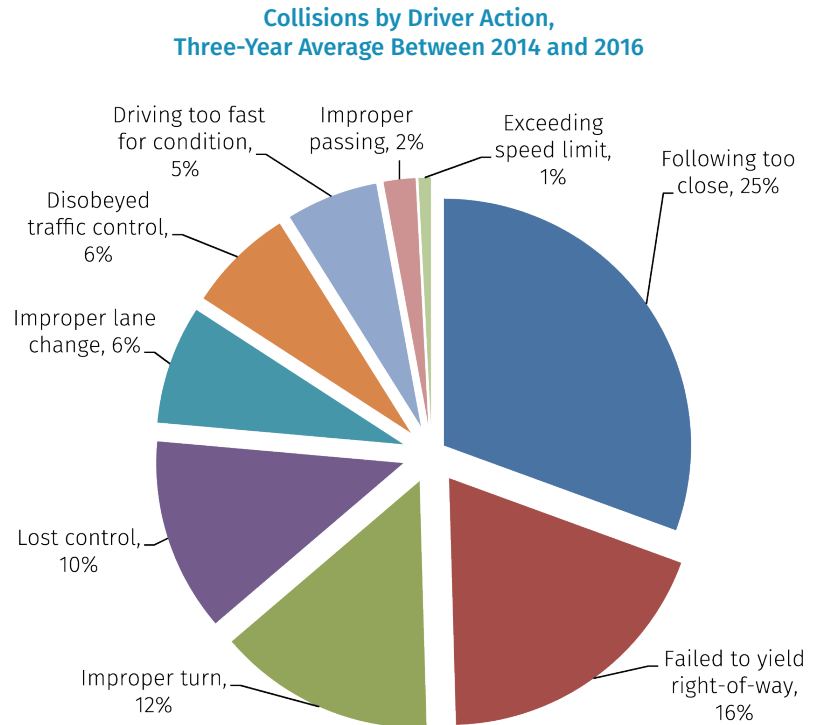
Photo: Stopped cars on Rutherford Road in Vaughan

- Rear-end collisions represented 40 per cent of all collisions, while right-angle collisions represented eight per cent of all collisions. Rear-end collisions are considered the least severe. Right angle collisions are considered the most severe.

- Statistics show that drivers were driving properly in only 17 per cent of all collisions, 83 per cent of all collisions were a direct result of improper driving.
- Acts of aggressive driving accounted for 39 per cent of all collisions.
- Residents who observe acts of aggressive driving in their community are encouraged to complete a Road Watch Report, available at yrp.ca.
- To complete a Road Watch Report, the licence plate number and a brief description of the vehicle is required.

Collisions by Driver Action

Statistics show that drivers were driving properly in only 17 per cent of all collisions; 83 per cent of all collisions were a direct result of improper driving. Leading causes are “following too close” and “failed to yield”.



York Regional Police has identified aggressive driving as a priority for public engagement in an effort to improve driver behaviours and encourage driver awareness and responsibility. York Regional Police is committed to combat aggressive driving through an active Road Watch Program, the Eliminate Racing Activity from Streets Everywhere (E.R.A.S.E) program, youth education programs and strict enforcement.

In 2002, York Region introduced Community Safety Zones and have since also installed radar speed signs to encourage lower operating speeds. York Region is also expanding the red light camera program to reduce red light running and help change driver behaviour. York Region will have a total of 40 red light camera intersections by the end of 2017.

Collision Frequency at Red Light Camera Locations

Since fall of 2013, red light cameras have been operational at 20 intersections on Regional roads. There were 71 right-angle collisions at red light camera intersections in 2013, a year prior to implementing the cameras. In contrast, the right-angle collision frequency has reduced to 20 collisions in 2016, which is consistent with 2015 results. This is a significant reduction in right-angle collisions and meets the safety objectives of the program. To build on this success, Council approved the expansion of the red light camera program in 2016. Throughout 2017, the Region added 20 new red light camera locations and relocated nine existing red light cameras to new intersections to provide broader Regional coverage.



Photo: Red Light Cameras and Red Light Camera ahead warning sign in East Gwillimbury

- A violation occurs when a motorist enters an intersection after the signal light has turned red. The registered license plate holder receives the ticket, regardless of who was driving the vehicle.

**Right Angle Collision Frequency at 20 Red Light Camera Locations
Between 2012 and 2016**

LOCATION	RIGHT ANGLE COLLISION FREQUENCY				
	2012	2013	2014	2015	2016
16th Avenue and Ninth Line	3	2	3	0	1
Bloomington Road and Woodbine Avenue	4	2	0	2	1
Davis Drive and Ashton Road/Carlson Drive	1	2	0	0	1
Davis Drive and Bathurst Street	4	0	3	2	1
Davis Drive and Woodbine Avenue	1	3	2	1	0
Green Lane and Yonge Street	9	14	4	1	3
Green Lane East and Leslie Street	3	1	3	2	1
Highway 7 and Bathurst Street ramp	2	2	2	0	1
Highway 7 and Bullock Drive	1	0	1	1	1
Highway 7 and Vaughan Valley Boulevard	6	2	1	0	3
Highway 7 and Weston Road	6	15	9	2	0
Highway 7 and Yonge Street ramp	7	1	1	0	1
King Road and Bathurst Street	5	7	2	0	2
King Road and Dufferin Street	6	2	1	2	1
Langstaff Road and Highway 27	5	6	1	0	0
Major Mackenzie Drive East and Kennedy Road	4	4	0	2	0
Major Mackenzie Drive East and McCowan Road	2	1	1	1	0
Morton Avenue and The Queensway/Metro Road	3	1	2	1	1
Stouffville Road and Woodbine Avenue	2	2	1	1	0
Wellington Street and Yonge Street	19	4	0	1	2
20 Red Light Camera Locations	93	71	37	19	20

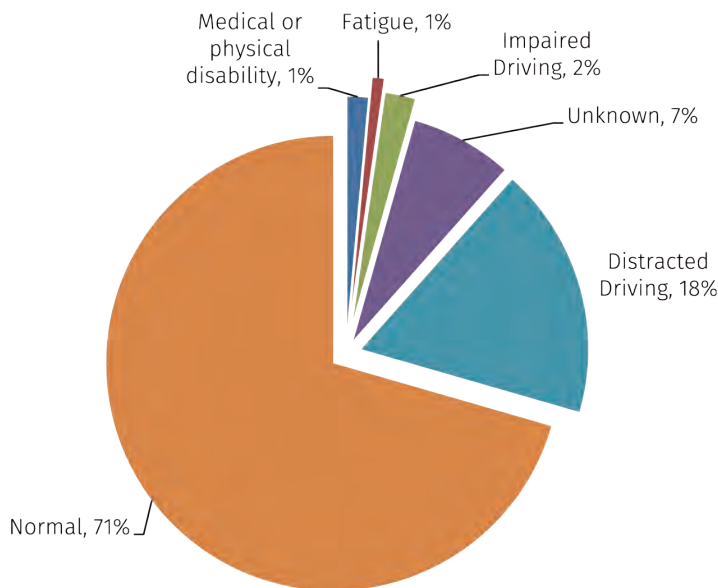
Collisions by Driver Condition

Collisions where the condition of an at-fault driver was recorded as “normal” or “unknown” accounted for 78 per cent of all collisions. Of the remaining at-fault drivers, most were identified as “inattentive driving”, i.e. distracted drivers.

Distracted driving continues to be one of the most common offences York Regional Police sees out on the roads. York Regional Police will continue to conduct target enforcement in high-collision and high-volume areas, and run year-round campaigns and distracted driving initiatives focused on road users and youth.

Impaired driving is also among the top concerns for York Regional Police. In 2016, York Regional Police laid more than 1,600 impaired driving-related charges. York Regional Police is committed to combat impaired driving through the year-round Reduce Impaired Driving Everywhere (R.I.D.E.) program.

**Collisions by At-Fault Driver Condition,
Three-Year Average Between 2014 and 2016**



- Distracted driving accounted for 18 per cent of all collisions.
- In 2014, York Regional Police charged 4,680 drivers with distracted driving.
- A reminder to motorists that distracted driving is not limited to mobile phones; it refers to all forms of distracted or inattentive driving, such as adjusting a vehicle's entertainment system, GPS unit or stereo, eating and drinking, using a hand-held device, self-grooming or tending to children in the backseat.
- In 2014, York Regional Police received 5,613 9-1-1 calls from citizens reporting possible impaired drivers, resulting in 933 drivers being arrested, charged and immediately removed from the road.

- Over the last three years, the intersection of Major Mackenzie Drive and Highway 400 southbound off-ramp experienced the highest number of collisions on the Regional road network.
- Due to industrial zoning, like the CN and CP rail yards, extensive industrial areas in the City of Vaughan and major employment hubs along the Highway 7 corridor in the City of Markham and Town of Richmond Hill, Highway 7 continues to be York Region's most travelled roadway.

Collisions by Location

Highway 7 continues to be York Region's most travelled roadway, providing a continuous link between Peel Region and Durham Region. Highway 7, along with Major Mackenzie Drive and Rutherford Road/16th Avenue, are also major connecting roads to Highways 427, 400 and 404. Combined with high truck volumes generated by nearby industrial areas, such as in the vicinity of the CN MacMillan Yard in Concord, the CP Intermodal Yard and Sears' Distribution Centre in the City of Vaughan, and high traffic volumes originated from or destined to major employment hubs along the major arterial corridors in the City of Vaughan, City of Markham and Town of Richmond Hill, it is not unusual that the majority of high collision intersections are situated along these high volume major arterials.

Top 10 High Collision Frequency Locations, Three-Year Total Between 2014 and 2016

DESCRIPTION (POSITION IN LAST YEAR'S REPORT)	TOTAL VOLUME*	INJURY COLLISIONS	THREE- YEAR TOTAL
1 Major Mackenzie Drive West and Highway 400 southbound off-ramp (2)	23,000	52	167
2 Highway 7 and Weston Road (1)	56,000	40	143
3 Yonge Street and Green Lane (5)	37,000	32	140
4 Weston Road and Rutherford Road (3)	40,000	36	139
5 Highway 7 and Jane Street (6)	53,000	26	132
6 Highway 7 and Keele Street (4)	55,000	21	124
7 Major Mackenzie Drive West and Jane Street (7)	38,000	31	113
8 Highway 7 and McCowan Road (8)	37,000	26	112
9 Yonge Street and Carrville Road/16th Avenue (9)	36,000	34	110
10 Highway 7 and Pine Valley Drive (-)	38,000	38	109

* The volumes are derived from an eight-hour turning movement count for all approaches and represents traffic during a typical weekday.

Collision Frequency by Municipality

The following maps illustrate the top ten high-collision locations in York Region and each of the local municipalities for the three-year period between 2014 and 2016.

York Region

Town of Aurora

Town of East Gwillimbury

Town of Georgina

Township of King

City of Markham

Town of Newmarket

Town of Richmond Hill

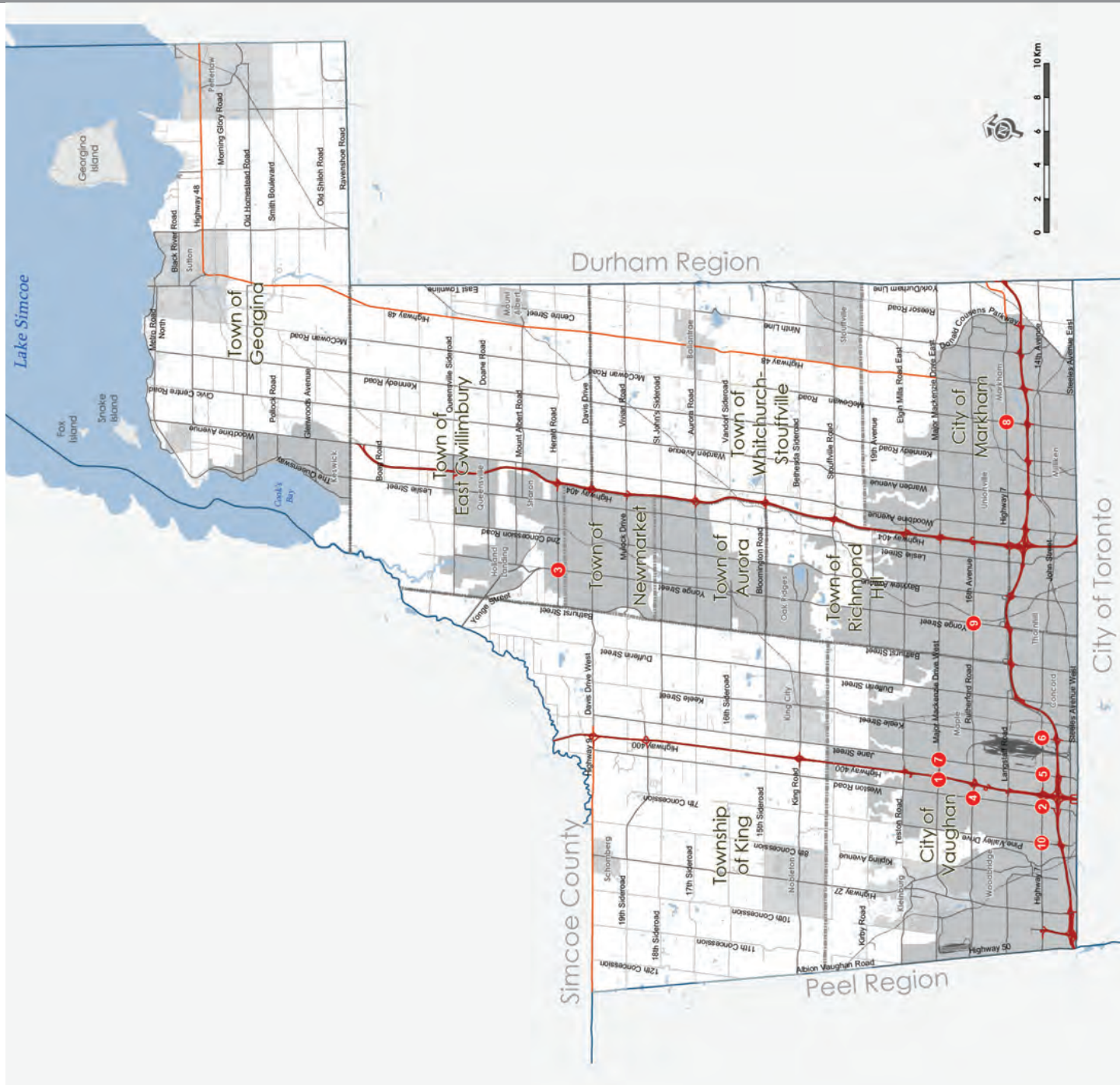
City of Vaughan

Town of Whitchurch-Stouffville

Top 10 High Collision Locations in York Region

- 1 Major Mackenzie Drive West and Exit 35/GO Carpool Lot - Hwy 400 and Major Mackenzie Drive West (*167)
- 2 Highway 7 and Weston Road (*143)
- 3 Yonge Street and Green Lane East/Green Lane West (*140)
- 4 Weston Road and Rutherford Road (*139)
- 5 Highway 7 at Jane Street (*132)
- 6 Keele Street and Highway 7 (*124)
- 7 Major Mackenzie Drive West and Jane Street (*113)
- 8 Highway 7 and McCowan Road (*112)
- 9 Yonge Street and Carrville Road/16th Avenue (*110)
- 10 Highway 7 at Pine Valley Drive (*109)

* Represents the number of collisions between 2014 and 2016



Top 10 High Collision Locations in the Town of Aurora

- 1 Wellington Street and Yonge Street (*80)
- 2 Wellington Street East and Bayview Avenue (*56)
- 3 Wellington Street East and Industrial Parkway North/Industrial Parkway South (*55)
- 4 Wellington Street East and Mary Street/John West Way (*42)
- 5 Leslie Street and Wellington Street East (*40)
- 6 St John's Sideroad and Bayview Avenue (*34)
- 7 Yonge Street and St John's Sideroad (*32)
- 8 Bathurst Street and 15th Sideroad/Bloomington Road (*30)
- 9 Wellington Street East and First Commerce Drive (*30)
- 10 Yonge Street and Industrial Parkway South (*22)

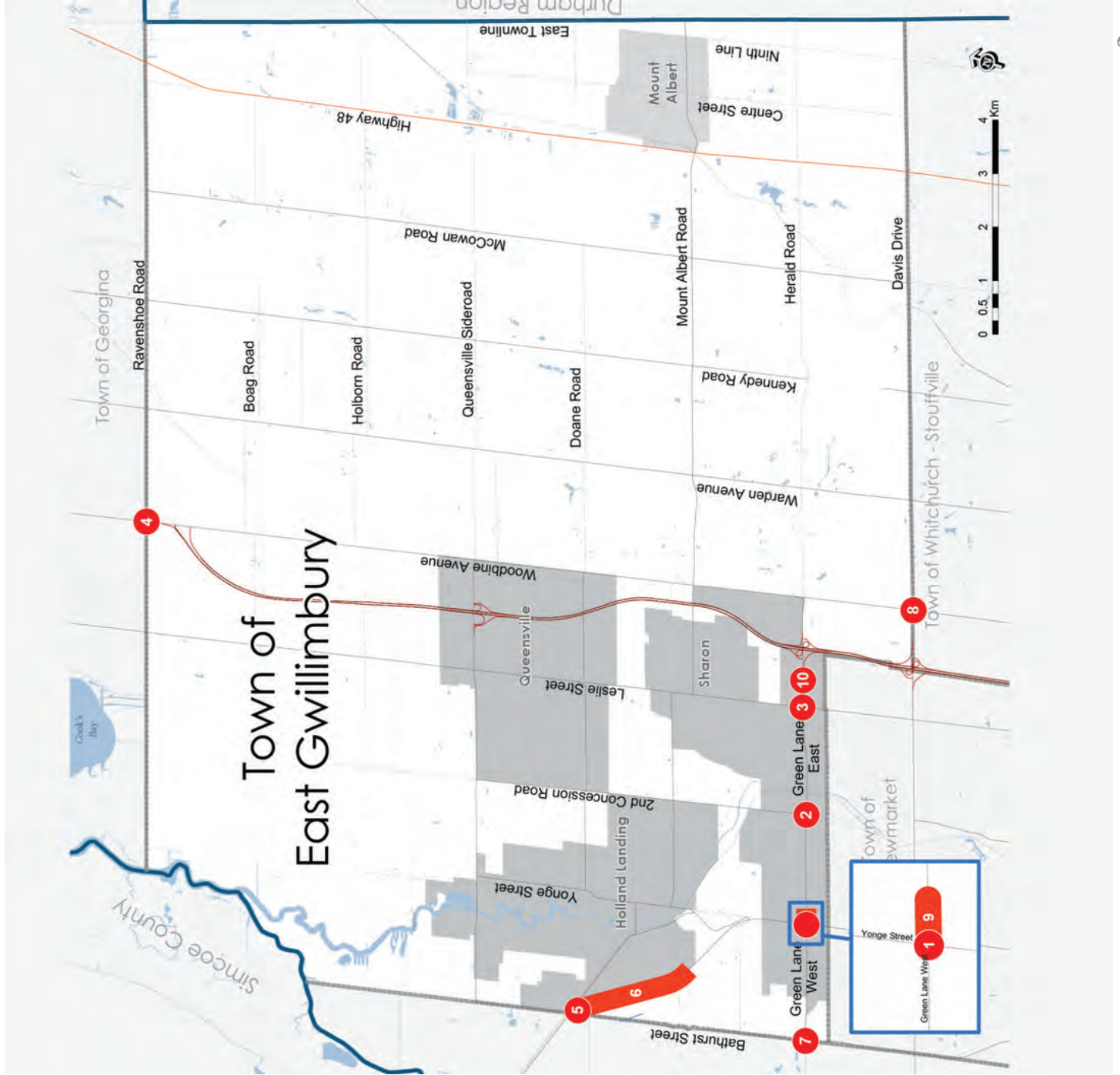
* Represents the number of collisions between 2014 and 2016



Top 10 High Collision Locations in the Town of East Gwillimbury

- 1 Yonge Street and Green Lane East/Green Lane West (*140)
- 2 Green Lane East and Main Street North/2nd Concession Road (*73)
- 3 Leslie Street and Green Lane East (*71)
- 4 Woodbine Avenue and Ravenshoe Road (*57)
- 5 Highway 11 and Bathurst Street (*42)
- 6 Highway 11 between Sherwood Glen and Bathurst Street (*31)
- 7 Bathurst Street and Green Lane West/Miller's Sideroad (*30)
- 8 Woodbine Avenue and Davis Drive (*24)
- 9 Green Lane East between Yonge Street and Yonge-Green Lane Centre - Lowes Plaza (*23)
- 10 Green Lane East and Harry Walker Parkway (*21)

* Represents the number of collisions between 2014 and 2016



Top 10 High Collision Locations in the Town of Georgina

- 1 Woodbine Avenue and Ravenshoe Road (*57)
- 2 Woodbine Avenue and Morton Avenue/Pollock Road (*20)
- 3 The Queensway South and Glenwoods Avenue (*18)
- 4 The Queensway South and Metro Road South/Morton Avenue (*16)
- 5 Kennedy Road and Ravenshoe Road (*15)
- 6 Woodbine Avenue and Baseline Road (*14)
- 7 Dalton Road and McDonough Avenue/High Street (*14)
- 8 The Queensway South and Biscayne Boulevard (*14)
- 9 Dalton Road and Baseline Road (*13)
- 10 Dalton Road and Black River Road (*12)

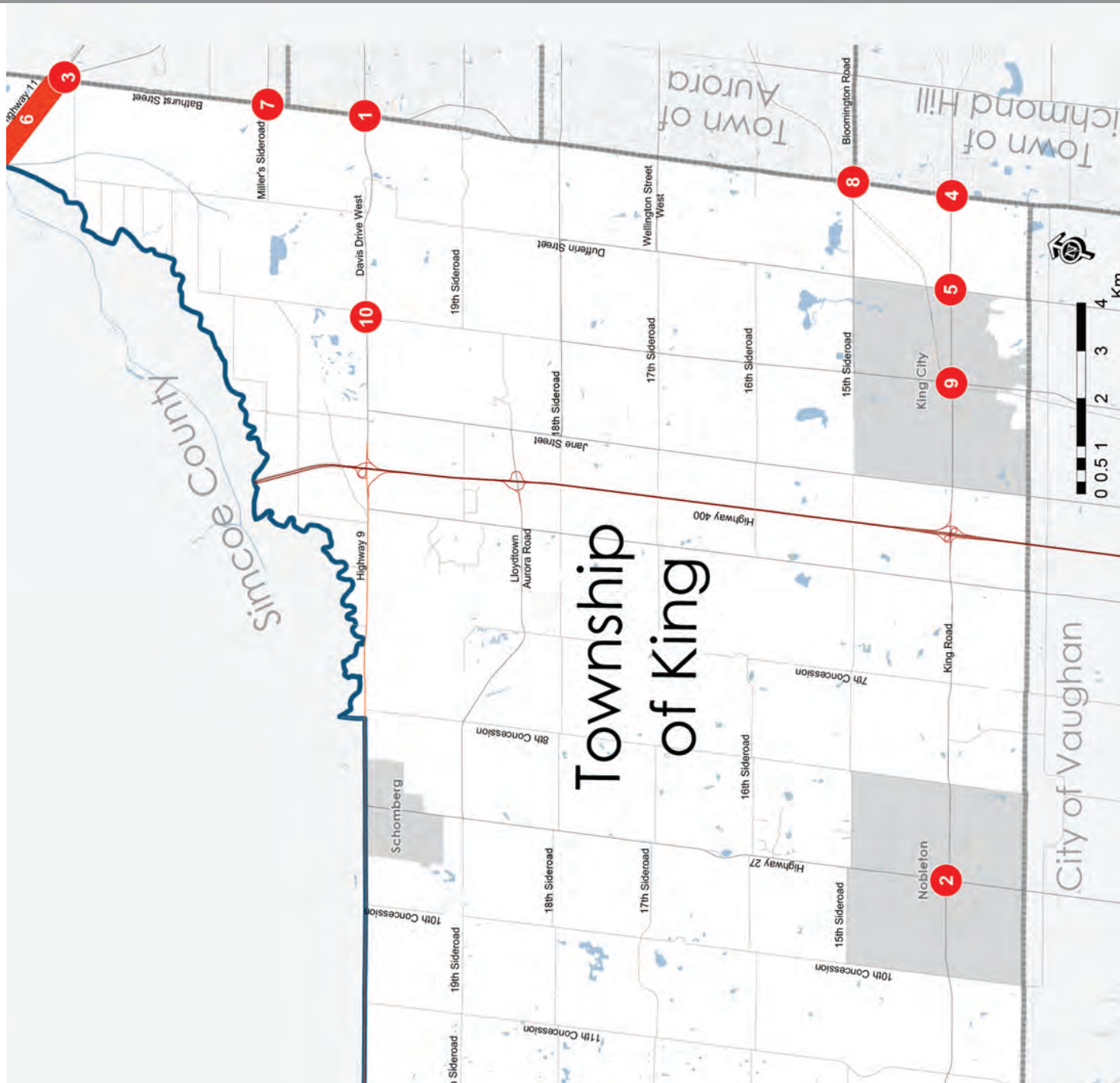
* Represents the number of collisions between 2014 and 2016



Top 10 High Collision Locations in the Township of King

- 1 Davis Drive West and Bathurst Street (*72)
- 2 King Road and Highway 27 (*46)
- 3 Highway 11 and Bathurst Street (*42)
- 4 King Road and Bathurst Street (*38)
- 5 King Road and Dufferin Street (*35)
- 6 Highway 11 between Bathurst Street and Kalvers Street (*33)
- 7 Bathurst Street and Green Lane West/ Miller's Sideroad (*30)
- 8 Bathurst Street and 15th Sideroad/Bloomington Road (*30)
- 9 Keele Street and King Road (*28)
- 10 Davis Drive West and Keele Street (*27)

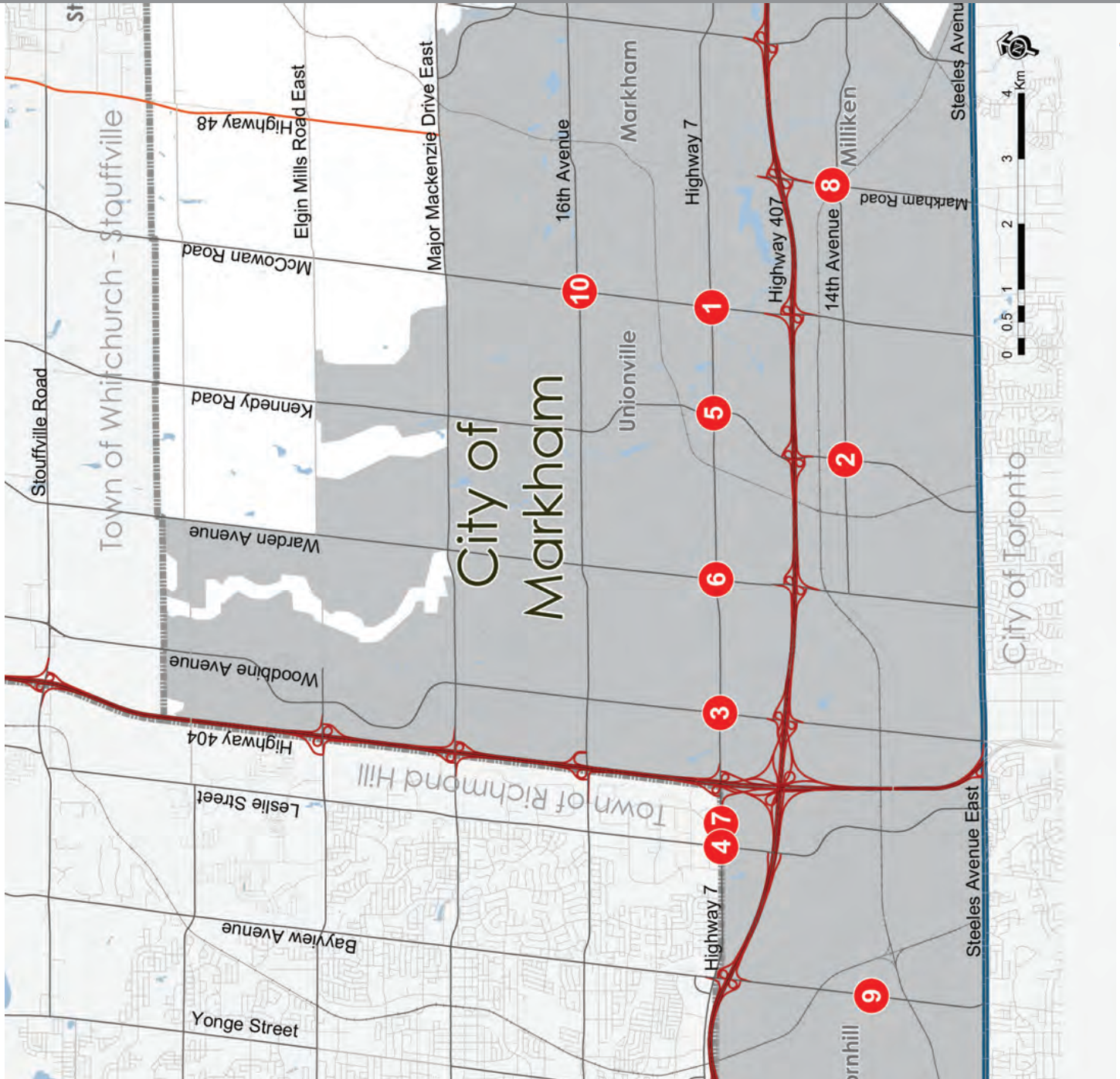
* Represents the number of collisions between 2014 and 2016

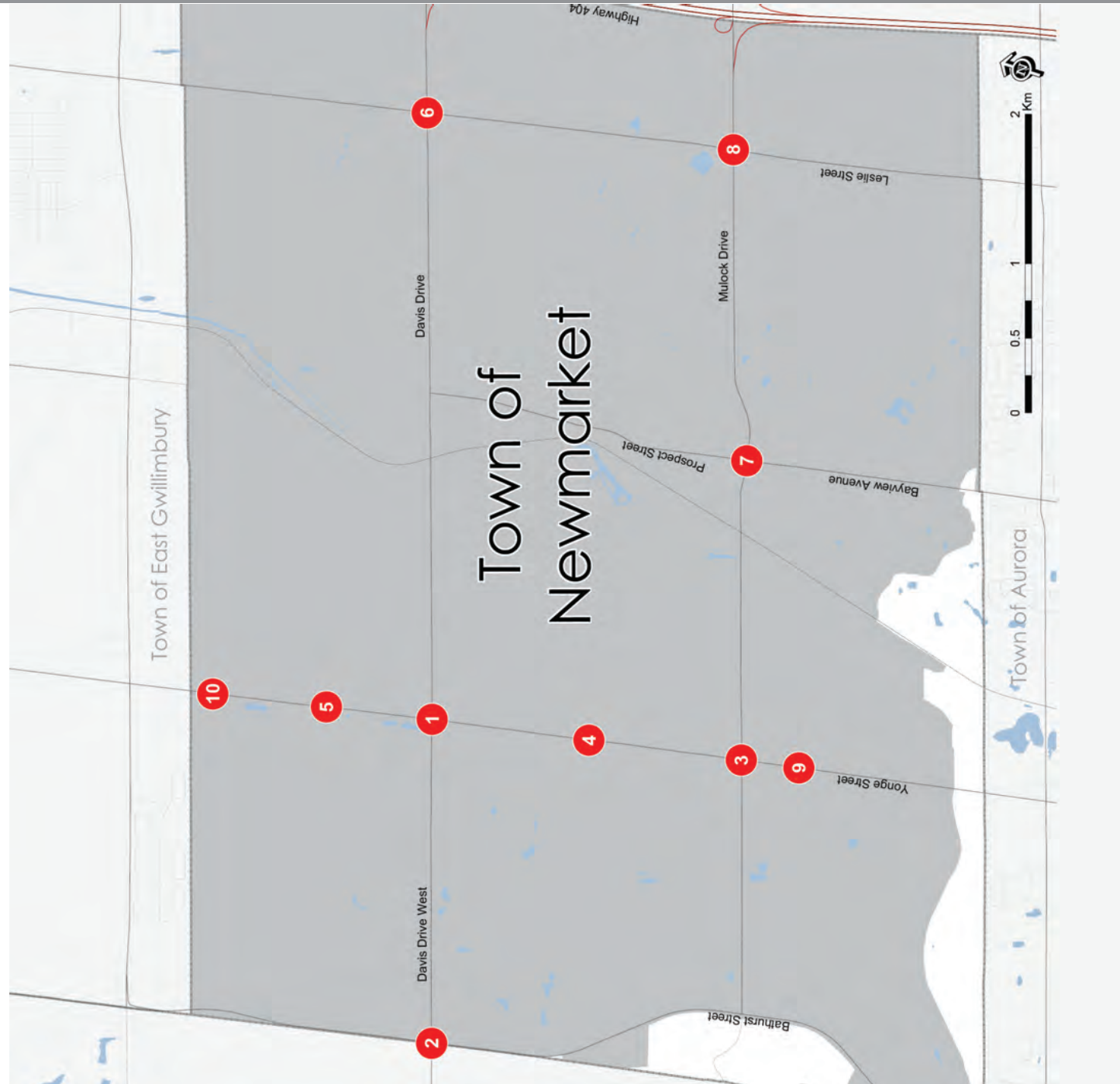


Top 10 High Collision Locations in the City of Markham

- 1 Highway 7 and McCowan Road (*112)
- 2 Kennedy Road and 14th Avenue (*81)
- 3 Highway 7 and Woodbine Avenue (*80)
- 4 Highway 7 and Leslie Street (*75)
- 5 Highway 7 at Kennedy Road (*74)
- 6 Highway 7 at Warden Avenue (*73)
- 7 Highway 7 and Commerce Valley Drive East / East Beaver Creek Road (*69)
- 8 14th Avenue at Markham Road (*66)
- 9 Bayview Avenue and John Street (*65)
- 10 McCowan Road and 16th Avenue (*64)

* Represents the number of collisions between 2014 and 2016





Top 10 High Collision Locations in the Town of Newmarket

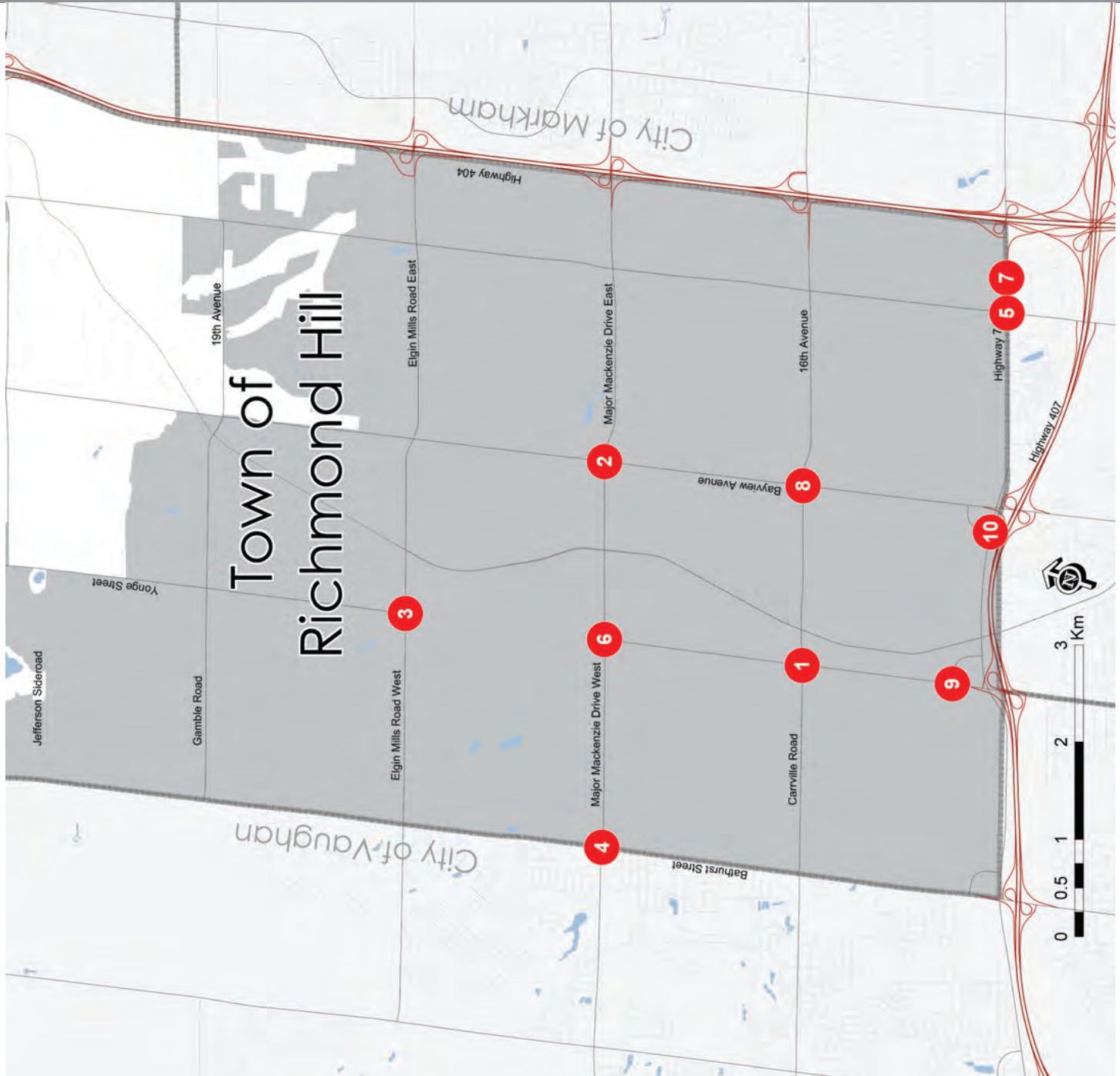
- 1 Yonge Street and Davis Drive West (*86)
- 2 Davis Drive West and Bathurst Street (*72)
- 3 Yonge Street and Mullock Drive (*68)
- 4 Yonge Street and Eagle Street/Eagle Street West (*65)
- 5 Yonge Street and Kingston Road/Dawson Manor Boulevard (*60)
- 6 Leslie Street and Davis Drive (*58)
- 7 Mullock Drive and Prospect Street/Bayview Avenue (*50)
- 8 Leslie Street and Mullock Drive (*49)
- 9 Yonge Street and Savage Road/Sawmill Valley Drive (*40)
- 10 Yonge Street and Bristol Road/Aspenwood Drive (*37)

* Represents the number of collisions between 2014 and 2016

Top 10 High Collision Locations in the Town of Richmond Hill

- 1 Yonge Street and Carrville Road/16th Avenue (*110)
- 2 Major Mackenzie Drive East and Bayview Avenue (*91)
- 3 Yonge Street and Elgin Mills Road West/Elgin Mills Road East (*84)
- 4 Major Mackenzie Drive West and Bathurst Street (*78)
- 5 Highway 7 and Leslie Street (*75)
- 6 Yonge Street and Major Mackenzie Drive West/Major Mackenzie Drive East (*73)
- 7 Highway 7 & Commerce Valley Drive East/East Beaver Creek Road (*69)
- 8 Bayview Avenue and 16th Avenue (*69)
- 9 Yonge Street and Garden Avenue/Highway 7 - Yonge Street Ramp (*69)
- 10 Highway 7 - Bayview Avenue Ramp and Highway 7 (*64)

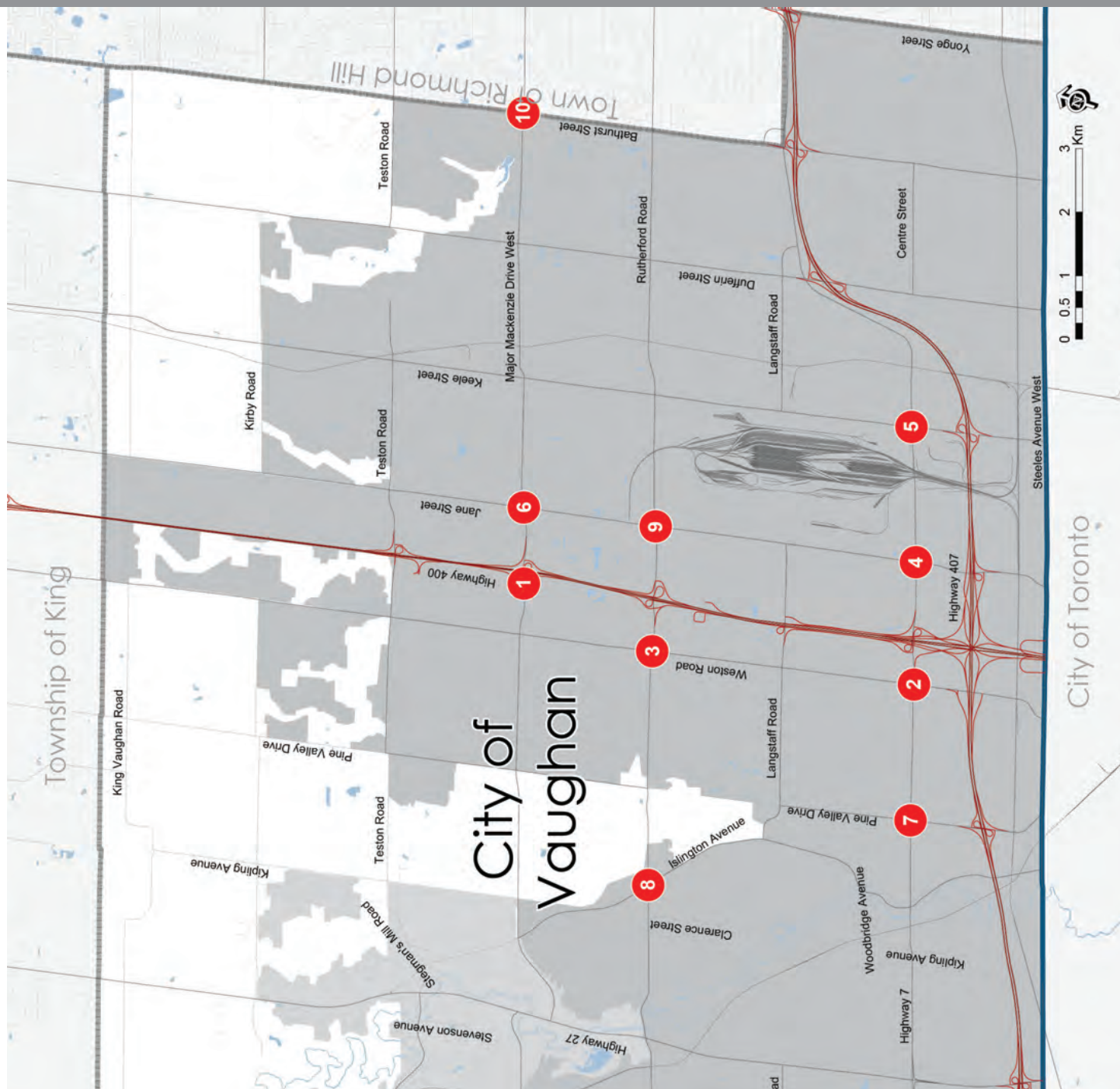
* Represents the number of collisions between 2014 and 2016



Top 10 High Collision Locations in the City of Vaughan

- 1 Major Mackenzie Drive West and Highway 400 southbound off-ramp (*167)
- 2 Highway 7 and Weston Road (*143)
- 3 Weston Road and Rutherford Road (*139)
- 4 Highway 7 at Jane Street (*132)
- 5 Keele Street and Highway 7 (*124)
- 6 Major Mackenzie Drive West and Jane Street (*113)
- 7 Highway 7 at Pine Valley Drive (*109)
- 8 Islington Avenue and Rutherford Road (*108)
- 9 Jane Street and Rutherford Road (*89)
- 10 Major Mackenzie Drive West and Bathurst Street (*78)

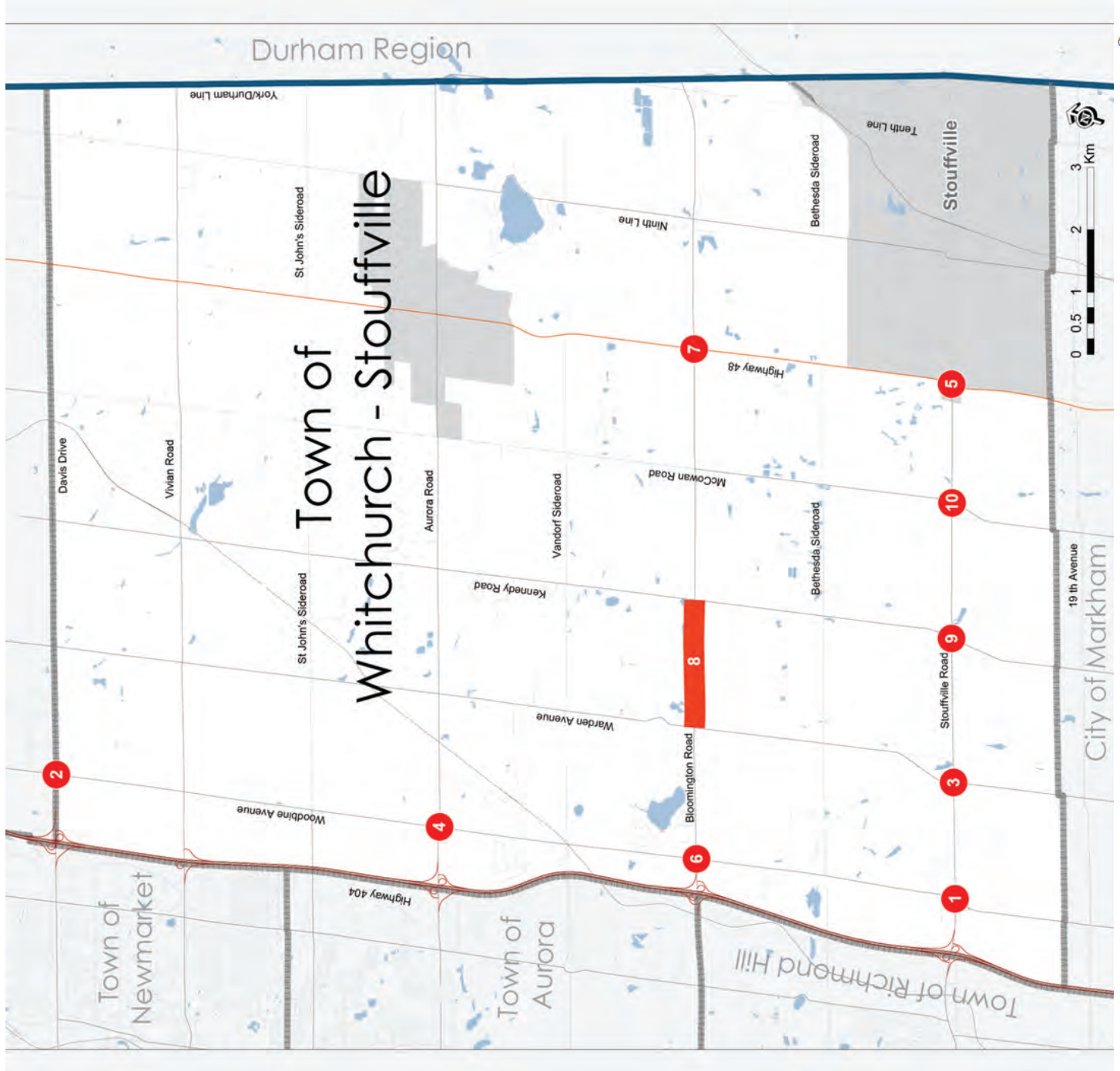
* Represents the number of collisions between 2014 and 2016



Top 10 High Collision Locations in the Town of Whitchurch-Stouffville

- 1 Woodbine Avenue and Stouffville Road (*27)
- 2 Woodbine Avenue and Davis Drive (*24)
- 3 Stouffville Road and Warden Avenue (*21)
- 4 Woodbine Avenue and Aurora Road (*21)
- 5 Stouffville Road and Main Street/Highway 48 (*19)
- 6 Woodbine Avenue and Bloomington Road (*17)
- 7 Bloomington Road and Highway 48 (*14)
- 8 Bloomington Road between Warden Avenue & Kennedy Road (*14)
- 9 Kennedy Road and Stouffville Road (*13)
- 10 Stouffville Road and McCowan Road (*13)

* Represents the number of collisions between 2014 and 2016



Accessible formats of this report or
communication supports are also available upon request.

Please contact us for more information.

The Regional Municipality of York
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Newmarket, Ontario
L3Y 6Z1

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1-877-464-9675
TransportationServices@york.ca

2017 Annual Collision Statistics Report



2017 Traveller Safety Report

Presentation to
Committee of the Whole

Joseph Petrungaro

October 5, 2017



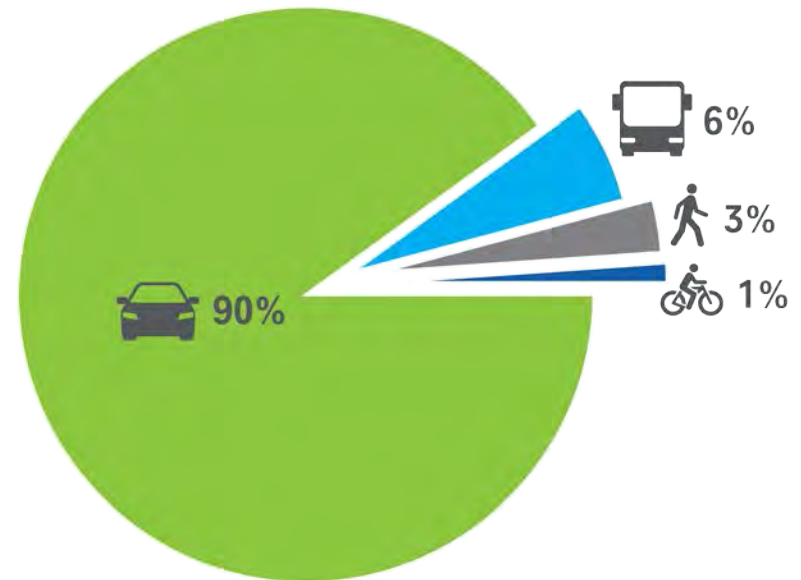
Overview

- Travellers on the Region's Transportation System
- Regional Collision Statistics
- Traveller Experience
- Next steps



Travellers on the Region's Transportation System

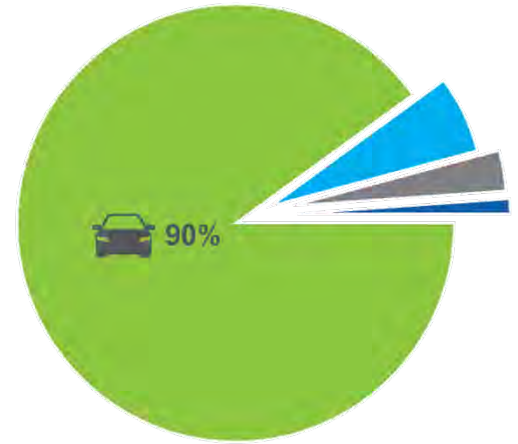
- As the Region continues to grow the number of travellers will increase
- More travellers will rely on the transportation system



99.9% of all travellers make it to their destination without a collision related incident

Motorists

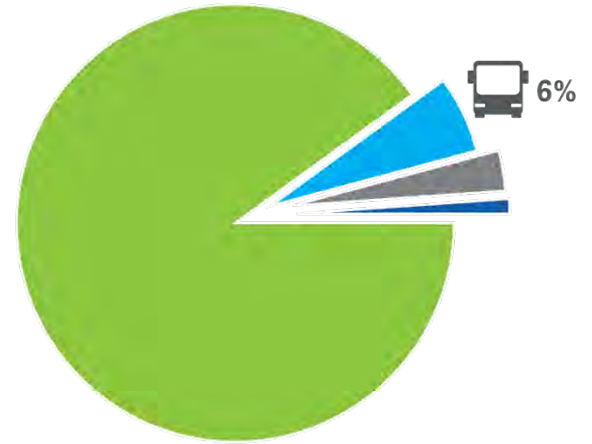
- 2.4 million vehicle trips daily
- Motorists account for 90 per cent of all trips on Regional roads



Driving remains the primary mode of transportation in York Region

Transit Riders

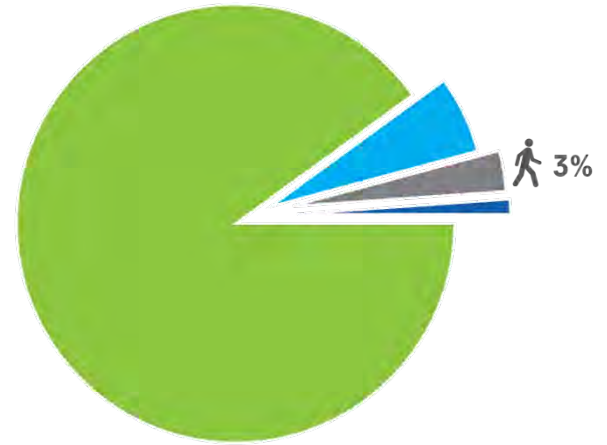
- 154,000 transit riders daily
- Transit trips account for six per cent of all trips on Regional roads



Transit vehicles are involved in two per cent of all collisions

Pedestrians

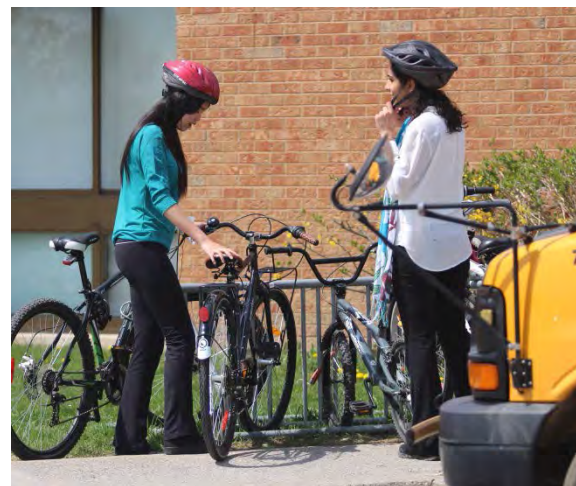
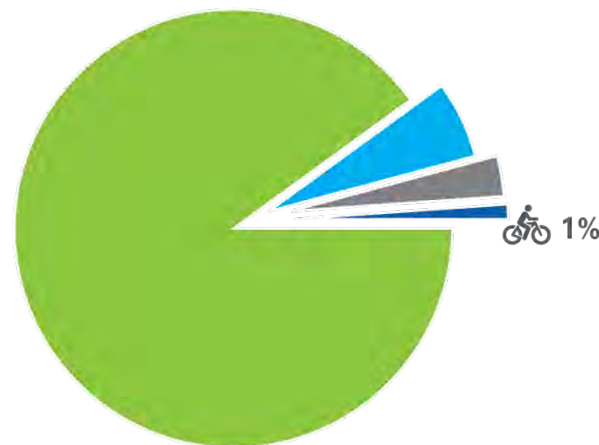
- 78,000 walk trips daily
- Walk trips account for three per cent of all trips on Regional roads
- Between 2001 and 2011, number of walk trips increased by 40 per cent



Pedestrian activity is expected to increase

Cyclists

- 7,100 cycle trips daily
- Cycling trips account for one per cent of all trips on Regional roads
- Between 2001 and 2011, number of cycling trips increased by 230 per cent



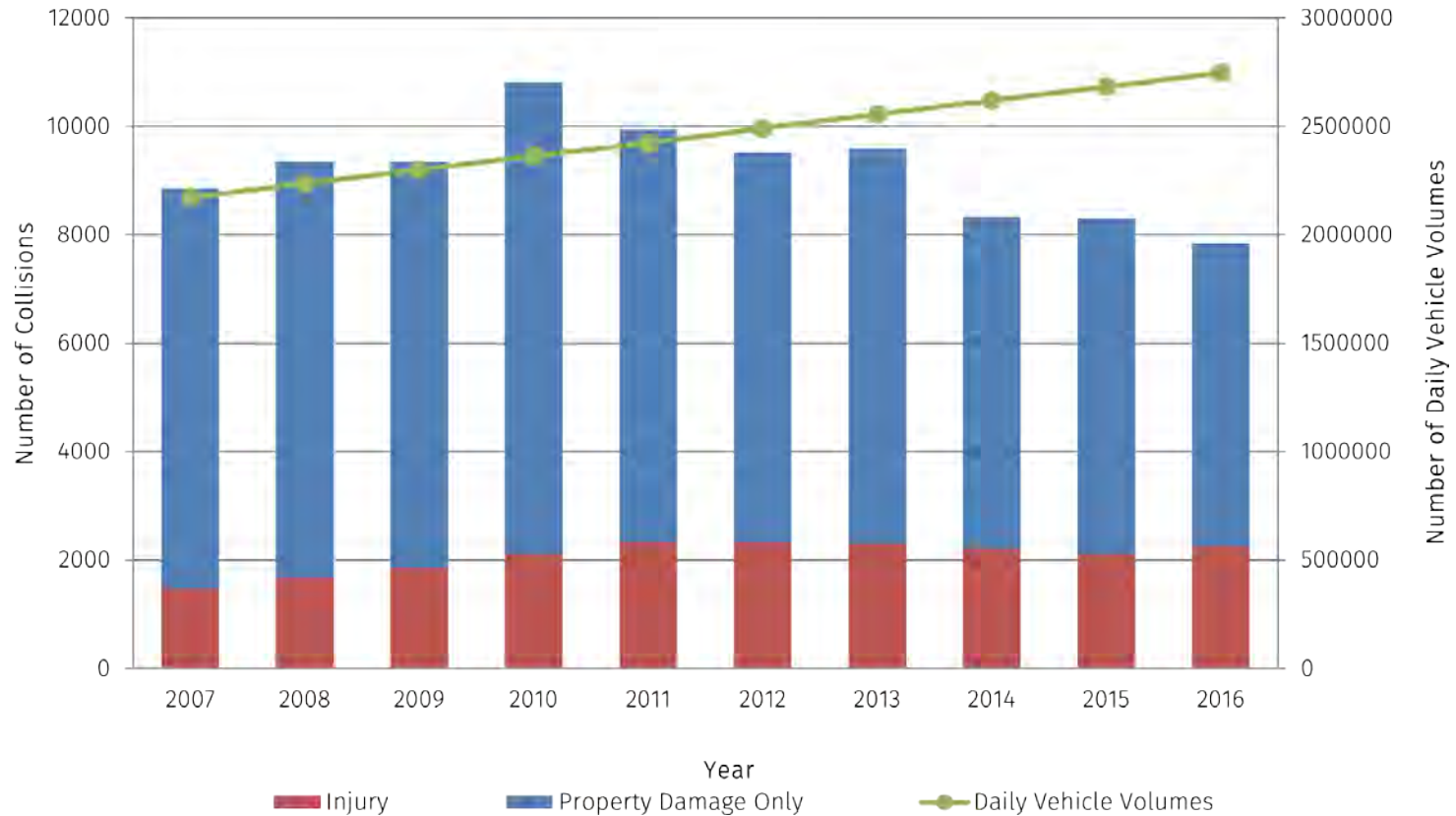
Recreational and commuter cycling continues to increase

2017 Annual Collision Statistics Report



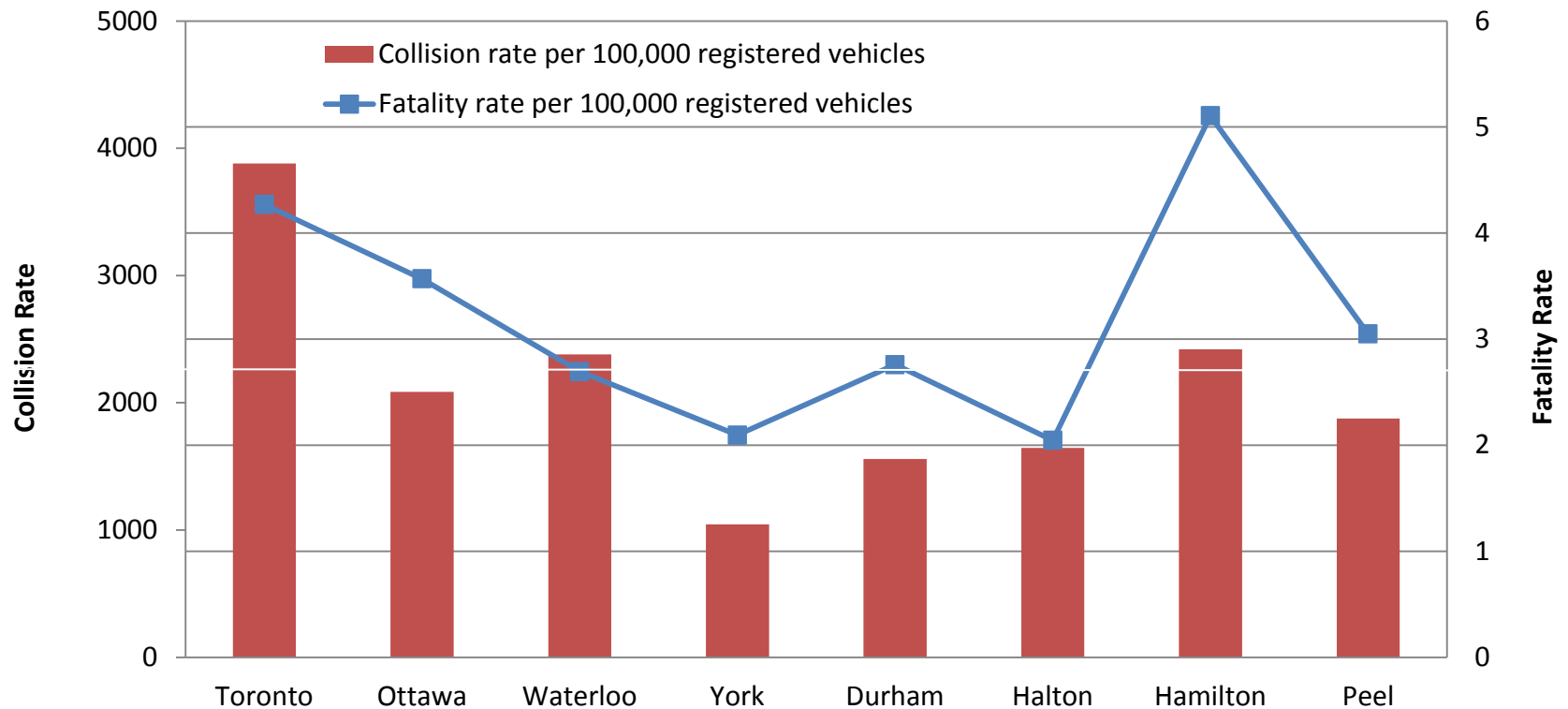
This report compares data for the years 2014 to 2016

Total Collisions on Regional Roads



Collisions on Regional roads continue to decrease

Collision Comparison



York Region drivers experience fewer collisions per registered vehicle when compared to peer municipalities

Annual Comparison of Collisions

Statistics	2014	2015	2016
Number of Collisions	8,330	8,304	7,848
Number of Fatal Collisions	19	13	15
Number of Injury Collisions	2,195	2,101	2,239
Number of Serious Injury Collisions	55	51	50
Number of Collisions Involving Pedestrians	165	169	174
Number of Collisions Involving Cyclists	106	98	115
Number of Collisions Involving Transit	127	130	97
Collision Rate Per 100,000 Population	728	712	661
Fatal Collision Rate Per 100,000 Population	1.7	1.1	1.3
Day with Highest Number of Collisions	Friday	Friday	Friday
Month with Highest Number of Collisions	January	February	November
Hour with the Highest Number of Collisions	5 to 6 p.m.	5 to 6 p.m.	5 to 6 p.m.
Most Common Collision Type	Rear-End	Rear-End	Rear-End
Most Frequently Recorded Improper Driving Action	Following Too Close	Following Too Close	Following Too Close
Percentage of Collisions Occurring at Intersections	77.6%	76.3%	76.7%
Percentage of Collisions Occurring During Winter Driving Conditions	10.7%	6.4%	6.7%

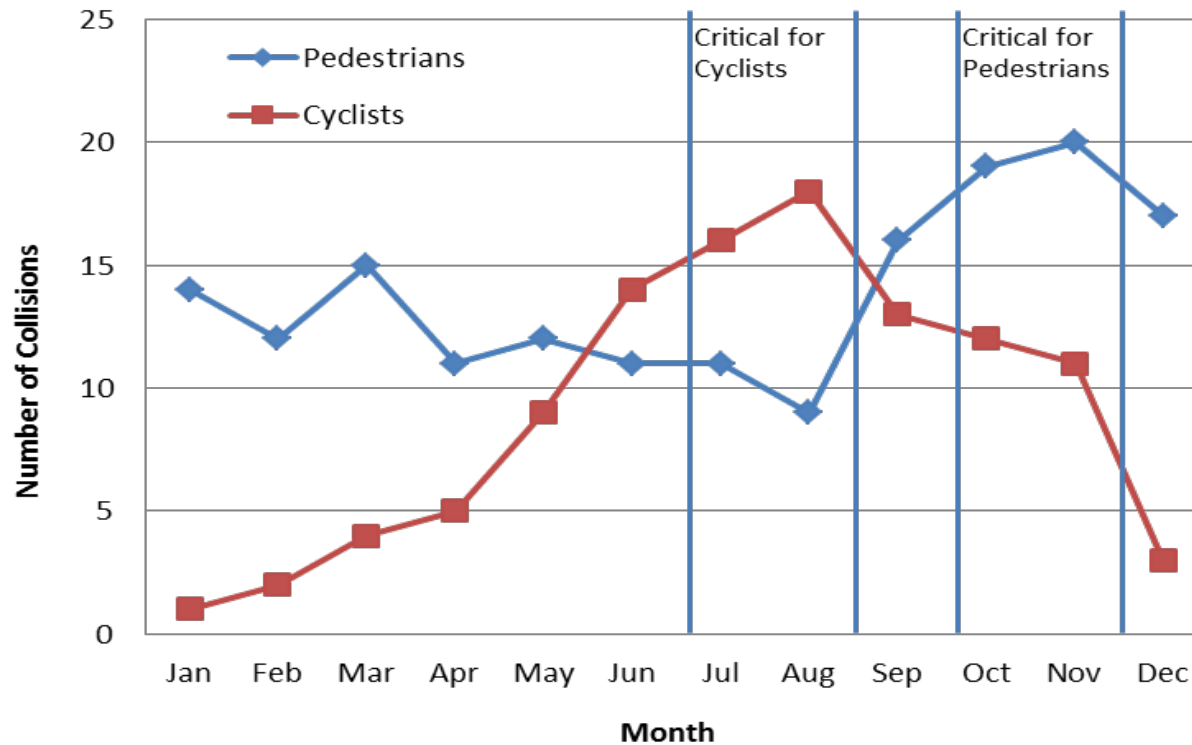
Overall 2016 collisions have decreased by 5.5%

Collision Experience by Traveller

Traveller	Number of Collisions	Per cent of Collisions	Per cent of Injury / Fatality
Motorist	7,769	95%	25%
Transit	118	2%	10%
Pedestrian	169	2%	95%
Cyclist	106	1%	81%

Motorists account for the majority of trips but vulnerable road users sustain higher injuries and fatalities

2016 Pedestrians and Cyclists Experience



Collisions involving cyclists and pedestrians follow seasonal trends

Pedestrians and Cyclists Safety are Areas of Focus in 2018



As York Region intensifies walking and cycling will continue to grow

York Region Staff will Critically Analyze the Data



Review potential contributors to pedestrian and cycling collisions

Questions/Discussion

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Director

Roads and Traffic Operations

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