

City of Mississauga Memorandum



Date: 2021/02/19

To: Chair and Members of Mississauga Cycling Advisory Committee

From: Amy Parker, Active Transportation Technologist, Active Transportation

Meeting Date: 2021/03/09

Subject: City of Mississauga Cycling Collisions

Background

In February 2018, the City of Mississauga passed a resolution to adopt Vision Zero. Vision Zero is a strategy to eliminate all traffic related serious and fatal injuries. The City's Transportation Master Plan was approved in May 2019 and outlines a variety of road safety objectives.

The 2018 City of Mississauga Cycling Master Plan (CMP) goals and recommendations are closely aligned with the concept of Vision Zero. The four goals outlined in the CMP are to:

1. *Improve safety for cycling;*
2. *Build a connected, convenient and comfortable bicycle network;*
3. *Increase the number of cycling trips in Mississauga; and*
4. *Foster a culture of cycling.*

This memo summarizes the historical data of cycling collisions that occurred at roadways/intersections owned and operated by the City of Mississauga. Collisions that occurred at roadways/intersections owned and operated by the Region of Peel have not been included. Figure 1 outlines the roadways within the City of Mississauga owned and operated by the Region of Peel.

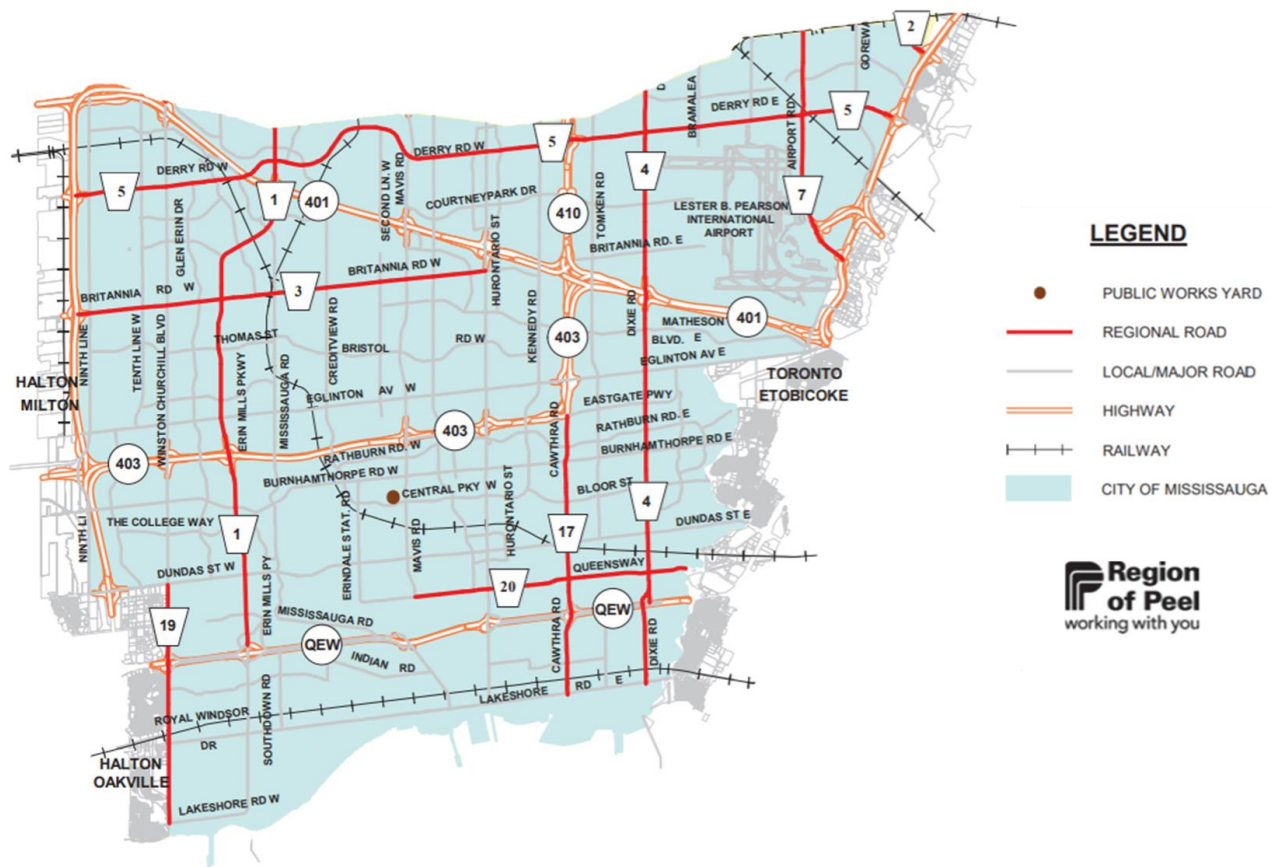


Figure 1 Region of Peel Roadways Map

Collision Analysis

Data Limitations

The City of Mississauga obtains collision data from the Peel Regional Police. This data is limited to collisions that have been reported to the police and may contain incorrect or missing information. Collisions that are still under investigation are not accessible for review and therefore not included in the analysis below.

Collision History

A safety assessment and collision review was conducted for the City of Mississauga. The review analyzed all reported cycling collisions on City roadways between January 1, 2014 and December 31, 2020. Table 1 below summarizes the overview of cycling collisions reported by year and severity.

Table 1 Cyclist Collisions by Year and Severity

	Year							
Severity of Collision	2014	2015	2016	2017	2018	2019	2020	Total
Fatal Injury			1					1 (0.2%)
Non-fatal Injury	35	47	48	33	26	29	34	252 (48.0%)
Property Damage Only	51	45	50	30	43	28	25	272 (51.8%)
Total	86	92	99	63	69	57	59	525

During the study period, 525 cyclist collisions were reported within the City of Mississauga on City owned roadways. Nearly half (48%) of these collisions resulted in injury and one collision resulted in a fatal injury.

The cyclist incidents most commonly seen in the City of Mississauga involve a bicycle and an automobile. However, bicycle-bicycle collisions and bicycle-pedestrian collisions are often unreported.

Table 2 Cyclist Collisions by Vehicle Type

Vehicle 1 Type – Vehicle 2 Type	Number of Collisions
Bicycle-Automobile	498 (94.8%)
Bicycle-Bicycle	13 (2.5%)
Bicycle-Other	1 (0.2%)
Bicycle-Unknown	13 (2.5%)
Total	525

Collision Trends

Since 2014, the frequency of collisions involving cyclists on City roadways appears to be decreasing. The majority (75%) of cyclist collisions reported in the City of Mississauga are occurring at intersections. Turning maneuvers pose a significant safety risk to cyclists as this movement type accounts for more than half (58%) of all cyclist collisions.

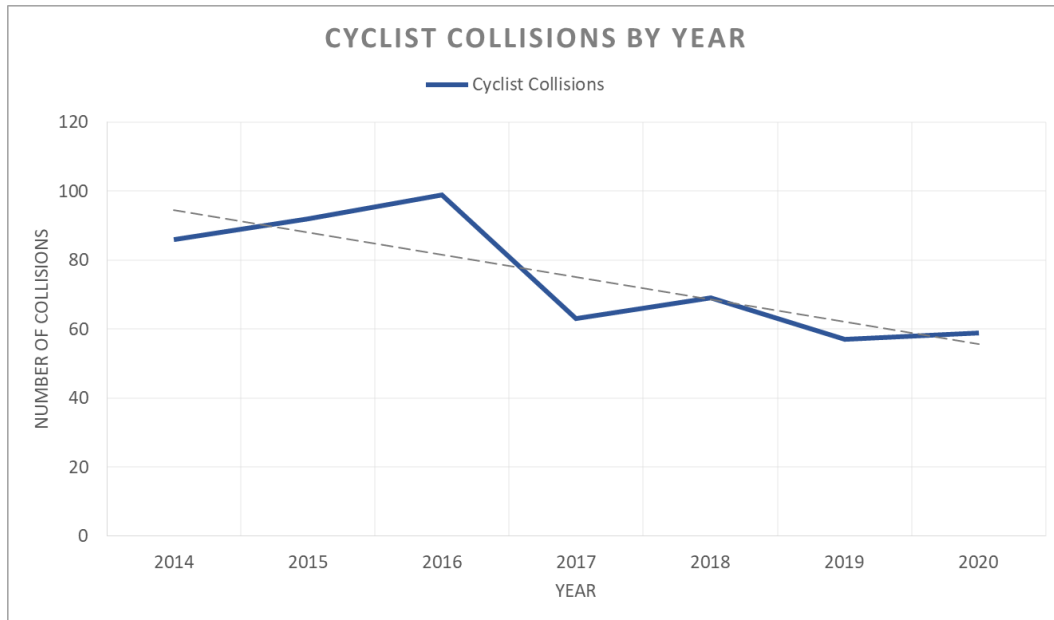


Figure 2 Cyclist Collisions by Year

According to the collision data, 10% of drivers failed to yield the right of way to cyclists and 13% of cyclists failed to yield the right of way to motor vehicles. 4% of drivers and 6% of cyclists disobeyed the traffic control.

The data also indicates the majority of cyclist collisions are occurring in clear environmental conditions (94%), dry road surface conditions (91%), and during daylight (84%).

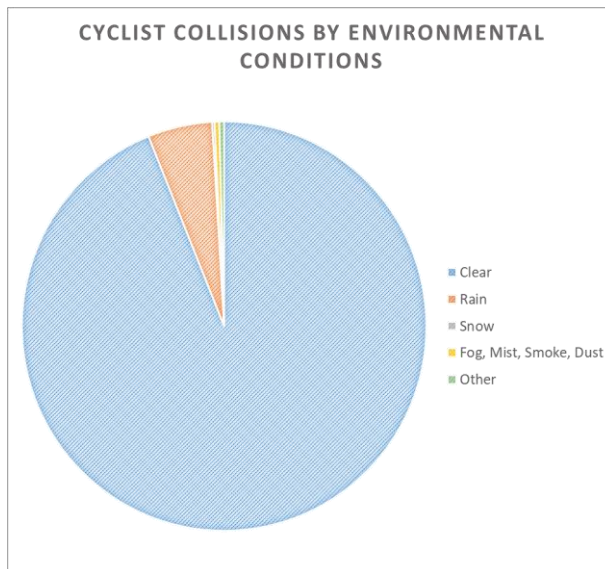


Figure 3 Cyclist Collisions by Environmental Conditions

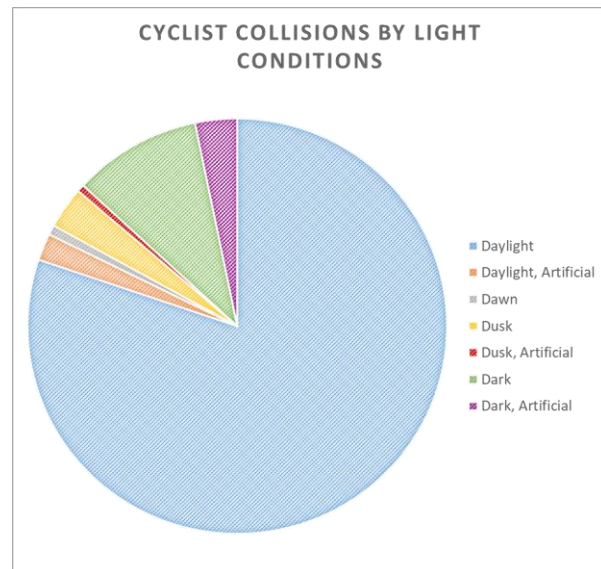


Figure 4 Cyclist Collisions by Light Conditions

Cyclist collisions tend to occur during the summer months and during the evening peak traffic period.

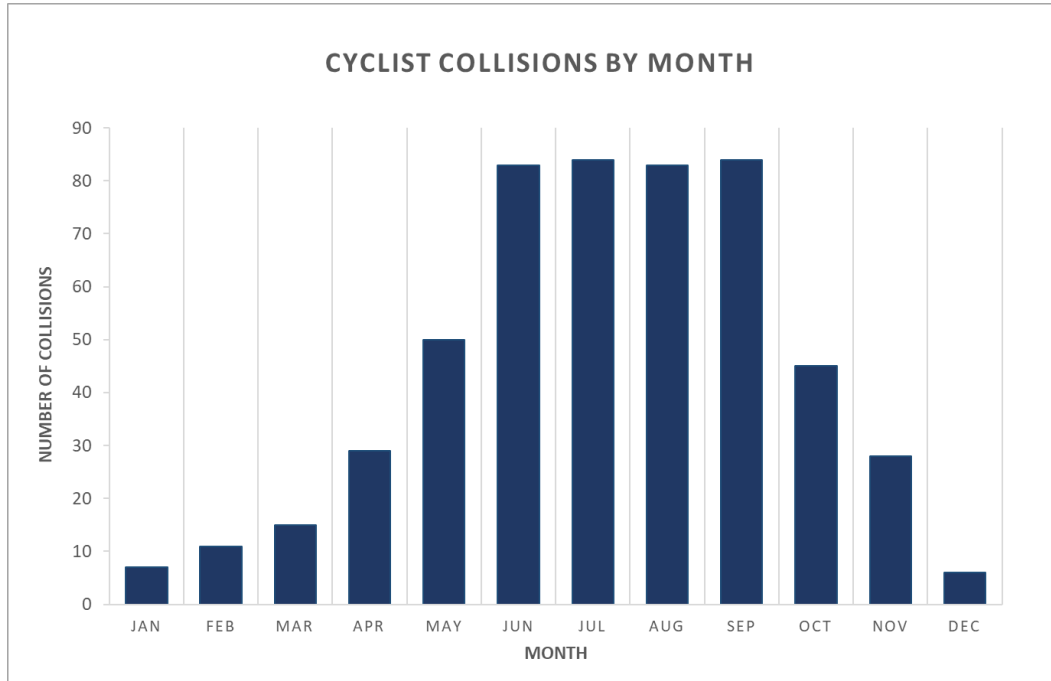


Figure 5 Cyclist Collisions by Month

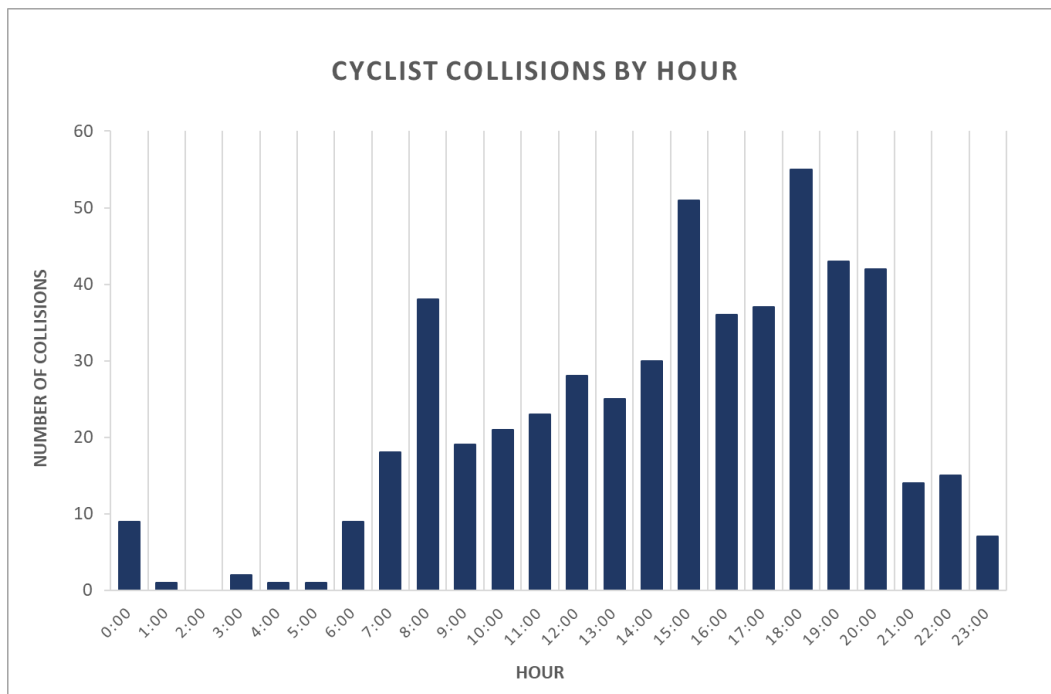


Figure 6 Cyclist Collisions by Hour (Starting)

Conclusion & Recommendations

Since 2014, 525 cyclist collisions have been reported within the City of Mississauga on City owned and operated roadways. Nearly half (48%) of these collisions resulted in injury and one collision resulted in a fatal injury. The majority (75%) of cyclist collisions reported in the City of Mississauga are occurring at intersections.

The long-term goal for the 2018 Cycling Master Plan is zero fatal and serious injury causing collisions. As part of this goal, an Intersection Enhancement Program was developed by the Transportation & Works department to improve the safety and comfort for cyclists at intersection locations. This program focuses on increasing the visibility of cycling activity and decreasing vehicle turning speeds. Capital cycling and road improvement projects are incorporating designs that also achieve these aims.

The collision review and analysis is the first step towards evidence based decision-making and strategies. The collision data collected during the review will aid in the City's future project evaluation, prioritization, and design.

The City of Mississauga recommends a further in-depth investigation into potential safety improvements at locations reporting the highest frequency and severity of cyclist collisions within our network. The City also recommends the continued proactive work in achieving our Vision Zero goals with the five 'E's of road safety: engineering, education, enforcement, empathy, and evaluation.

APPENDIX A: CYCLING COLLISION HEAT MAP

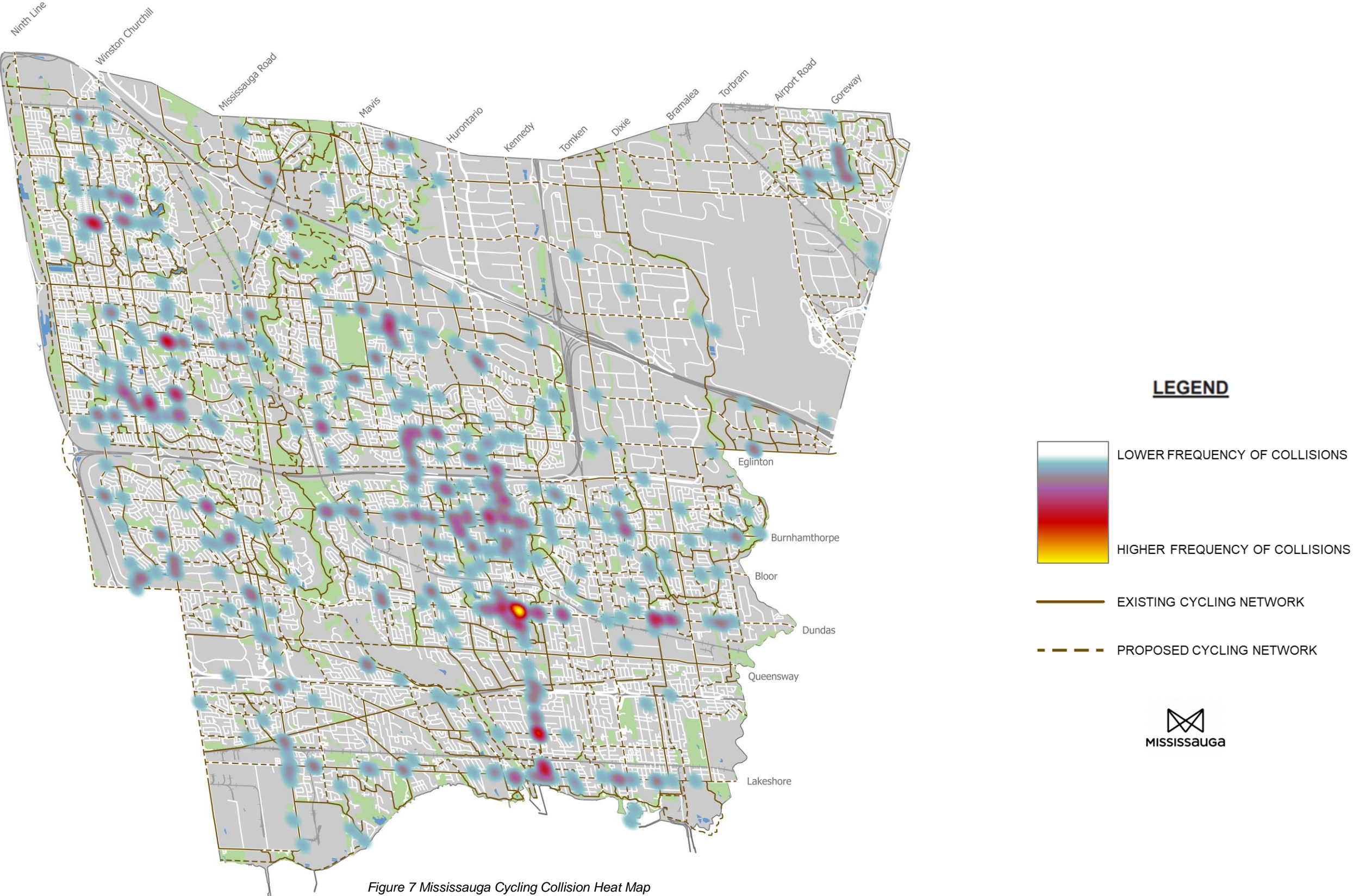


Figure 7 Mississauga Cycling Collision Heat Map