

# Traffic Collision Statistics Report

## 2023



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## **Report disclaimer**

*Collision data is obtained through the Alberta Transportation database, which is maintained by Strathcona County. There are many collisions that go unreported for a variety of reasons and therefore are not included in this data. Also, there are many collisions that may have data deficiencies that are inherent in collecting data and maintaining large databases. Any collision information provided is up to date on the day it was provided and may not include those collisions which remain in an open status due to pending investigations and legal requirements. There may be some discrepancies in both RCMP and Strathcona County datasets for various reasons.*

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## 2023 Collision quick facts

- 1,564 collisions occurred on public roadways.
- 38 per cent of reported collisions occurred on provincial highways.
- 3 per cent increase in total collisions in 2023 when compared to 2022.
- Seven fatal collisions occurred resulting in seven fatalities.
- Six of seven fatal collisions occurred on provincial highways.
- 75 per cent of collisions in Strathcona County were property damage only (PDO).
- 540 injury collisions (24 per cent of collisions) occurred on public roadways. Most injury collisions were classified as 'minor', 48 collisions required hospitalization representing nine per cent of all injury collisions.
- Individuals aged 35 to 44 were the most likely to be injured in a collision.
- No major injury collision occurred on residential roads in 2023.
- 47 per cent of public roadway collisions occurred at intersections and 22 per cent of these occurred at provincial highway intersections.
- 56 per cent of fatal and major injury collisions took place on a provincial highway.
- Following too closely was the most common type of driver action related to the cause of a collision on a public roadway in 2023.
- The highest number of collisions took place in October.
- 17 per cent of all collisions were wildlife related.
- An additional 657 collisions took place on private property, typically parking lots with most of those collisions involving hitting a parked vehicle.

### Collision comparison 2022 to 2023 (All roads within the County)

Collision statistics	2022	2023	Change
<b>All roads within the County</b>			
Total collisions	1,522	1,564	▲
Fatal collisions	8	7	▼
Fatalities	11	7	▼
Major injury collisions	23	46	▲
Major injuries	28	66	▲
Minor injury collisions	414	449	▲
Minor injuries	589	676	▲
PDO collisions	1,077	1,062	▼
Collisions per 1,000 population	15.2	15.6	▲
Injury collisions* per 1,000 population	4.4	5.0	▲
Collision injuries* per 1,000 population	6.3	7.5	▲
Pedestrian collisions	7	11	▲
Fatal and major pedestrian injuries	1	5	▲
Bicycle collisions	6	9	▲
Fatal and major cyclist injuries	0	2	▲
Motorcycle collisions	10	20	▲
Fatal and major motorcyclist injuries	5	3	▼
Intersection collisions	794	730	▼
Animal collisions	239	261	▲
Alcohol related collisions	22	42	▲
Commercial vehicle collisions	106	103	▼
<b>County owned roads</b>			
Total collisions	956	975	▲
Fatal collisions	0	1	▲
Major injury collisions	9	21	▲
Minor injury collisions	269	265	▼
PDO collisions	678	687	▲
Injury collisions* per 1,000 population	2.78	2.86	▲

\*Includes fatal, major injury and minor injury

## Section 1: Introduction

### 1.1 About this report

This report provides a summary of motor vehicle collisions reported from January 1, 2023, to December 31, 2023, within Strathcona County. Strathcona County maintains a database, Traffic Crash Location System (TCLS), which contains all reportable collisions that occur on public roadways within County boundaries (both County-owned and provincial).

The information is collected from the provincial report form, which is completed by members of the Royal Canadian Mounted Police (RCMP), either on paper at the scene of the collision,

or electronically at the front counter of the detachment. The database reflects all reported collisions on public roadways that result in property damage of \$2,000 or greater, as well as any collision that results in a minor injury, major injury, or fatality.

The information presented in this report is based on reported incidents at the time of printing. Due to ongoing police investigations, some data presented in this report may be subject to revision.

### *Significance of collisions statistics*

Strathcona County endorses the Safe System approach philosophy in the implementation of transportation network operations and maintenance to support the goal that no one is seriously injured or killed. At the heart of the Safe System Approach is the need to make data driven decisions to improve road safety. Collision data is used to develop, establish, and implement initiatives using the 5 E's of traffic safety: Engineering, Enforcement, Education, Evaluation and Engagement. Some of the major tasks include:

- Developing road safety projects and programs such as education, enforcement, and communication campaigns.
- Identifying and investigating high risk road safety situations and establishing countermeasures and priorities to correct the identified hazards or potential hazards.
- Identifying safety and communication needs of special user groups, such as older drivers, medically at-risk drivers, pedestrians, bicyclists, motorcyclists, and commercial vehicles.
- Managing and supporting budget planning for annual and capital improvement programs.
- Defining collision reduction targets and monitoring progress towards achieving these targets.

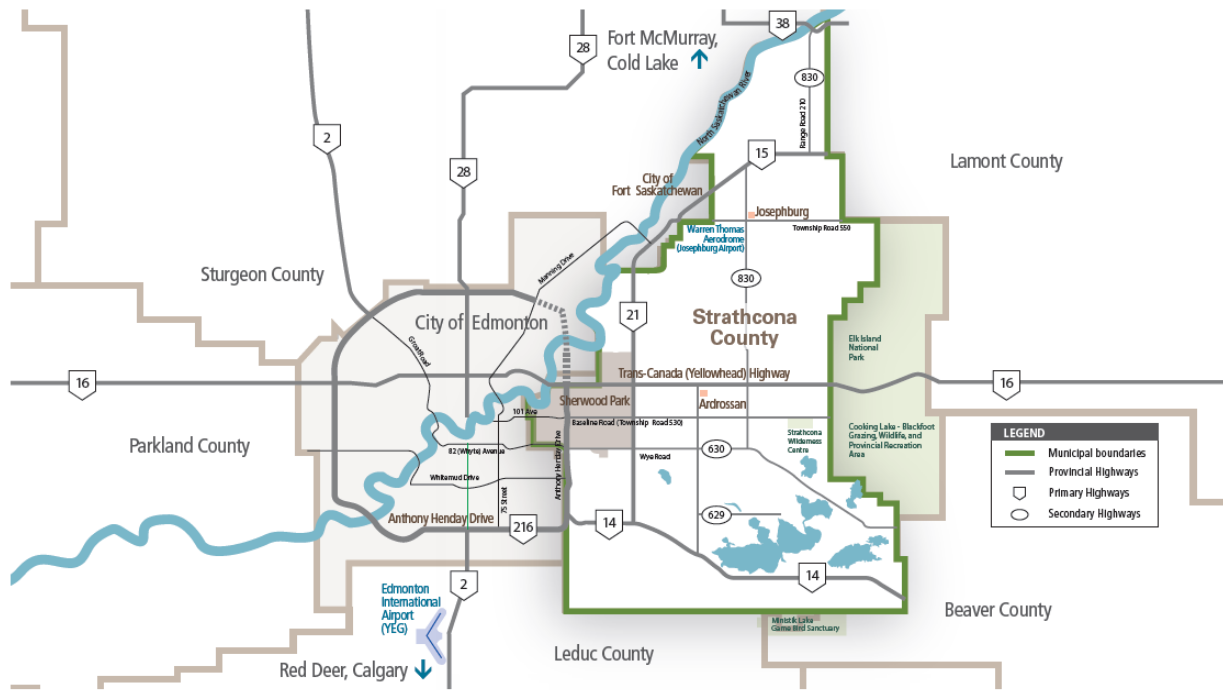
## **1.2 About Strathcona County**

Set in the center of Alberta's energy and agricultural heartland, Strathcona County is a thriving community of more than 100,000 residents. Strathcona County is made up of the urban area of Sherwood Park and a large rural area of farms, acreages and eight smaller hamlets.

### **1.2.1 Geographical location**

Strathcona County lies to the east of the City of Edmonton, Alberta, Canada, and is part of the Edmonton Metropolitan Region.

Figure 1: The Edmonton Metropolitan Region



### 1.2.2 Roadway network

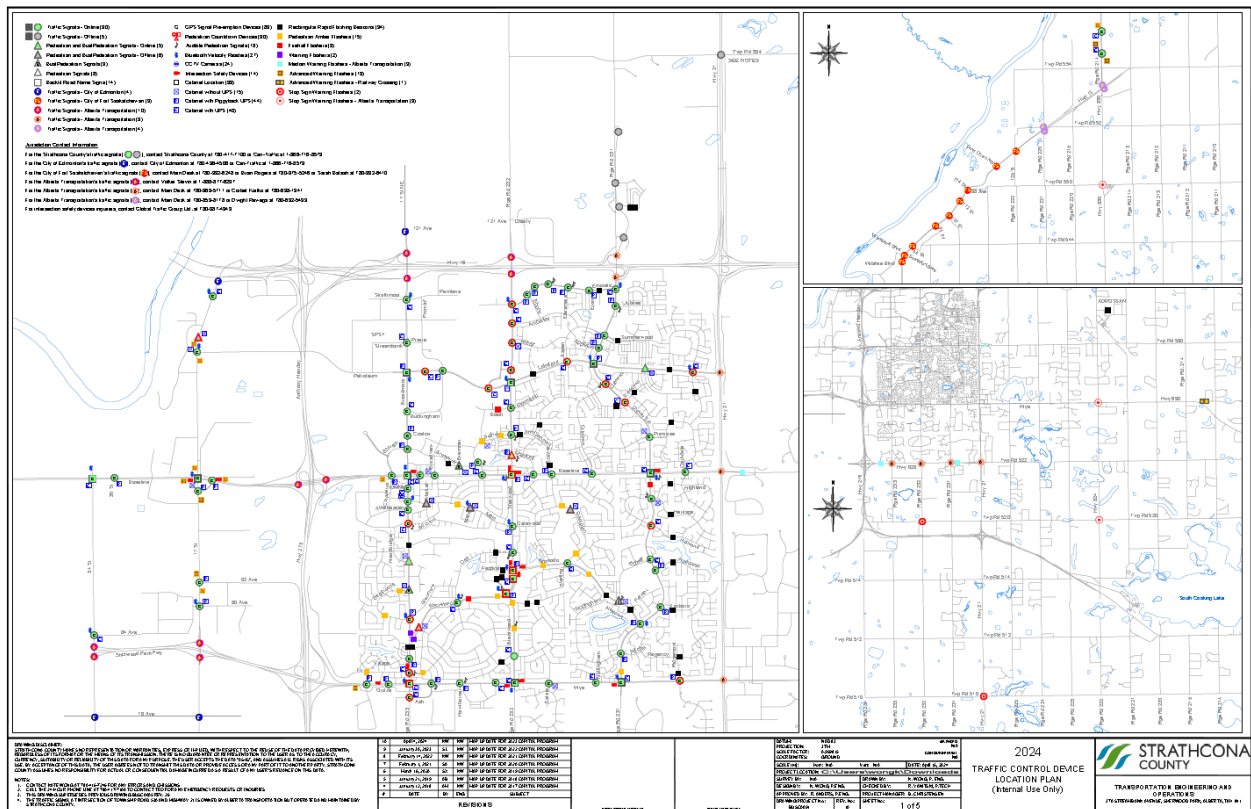
There are 1,957 km of public roadways in Strathcona County, including:

- 225 km of provincially maintained highways.
- 418 km of Strathcona County-maintained urban roads.
- 1,314 km Strathcona County-maintained rural roads.

### 1.2.3 Traffic signals

Strathcona County operates approximately 106 traffic signals, 15 pedestrian-activated overhead flashers, and 34 pedestrian-activated rectangular rapid flashing beacons. There are also four signals operated by the City of Edmonton on the western border and nine signals by Fort Saskatchewan. In addition, signals on provincial highways are operated by Alberta Transportation.

Figure 2: Urban traffic signal locations





## 1.2.4 Demographic information

### Population

Strathcona County is a fast-growing community, experiencing a 21.6 per cent population increase between 2006 and 2022. The majority of this growth has taken place in Sherwood Park, which has grown by 27 per cent during this timeframe.

Table 2: Strathcona County population (2006-2022)

Year	Sherwood Park	**Rural Strathcona County	Total Strathcona County
*2006	56,845	25,666	82,511
2008	59,409	26,112	85,521
2009	61,660	26,338	87,998
*2011	64,733	27,757	92,490
2012	65,465	26,938	92,403
2015	68,782	26,815	95,597
*2016	70,618	27,426	98,044
2018	71,332	27,049	98,381
*2021	72,017	27,208	99,225
2022	73,000	27,362	100,362

\*Census of Canada \*\* acreages, farms, rural hamlets

### Age

According to the 2022 Strathcona County Census, the average age of urban service area residents was 42.2, and rural service area was 42.4 years. These averages are higher than the Alberta average of 38.1, and higher than the Canadian average of 41.7.

Table 3: Strathcona County population breakdown by age (from 2022 Strathcona County Census data)

Age group	Percentage of population
14 and under	16.4
15-19	6.9
20-34	15.0
35-44	13.2
45-64	28.7
65 and older	19.1
Total population (all ages)	100

Strathcona County has 0.1 per cent more seniors and 0.1 per cent more children under 15 than the Canadian average.

### Travel habits

Residents of Strathcona County are heavily dependent on personal vehicles for travel. Use of personal vehicles for the journey to work is much higher in the County than the provincial and national average.

Table 4: Mode of commuting for residents of the County, Alberta, and Canada

Main mode of commuting	Strathcona County*	Alberta*	Canada*
Car, truck, van- as driver	87.5	77.7	74
Car, truck, van- as passenger	4	5.2	5.5
Public transit	4.5	10	12.4
Walk	2	4.5	5.5
Bicycle	0.4	1.1	1.4
Other method	1.6	1.5	1.2

\*As a percentage of the employed labour force aged 15 and over (from 2016 Canadian Census data)

### Registered vehicles and licensed drivers

According to Alberta Transportation and Economic Corridors, Sherwood Park had 74,338<sup>1</sup> licensed drivers in 2023. No data is available for Strathcona County but given this number exceeds the population of Sherwood Park, it likely reflects all, or most of the County.

Similarly, Alberta Transportation reports there are 82,822<sup>2</sup> motorized vehicles for highway use registered in Sherwood Park. This amounts to 1.1 vehicles per licensed driver, again reflecting the vehicle-dependent nature of Strathcona County.

### 1.2.5 School zones/playground zones/residential speed limits

Strathcona County utilizes both school zones/areas and playground zones/areas. All playground zones utilize default playground zone effective times established by the province under Alberta’s Use of Highways and Rules of the Road Regulation.



School and playground areas are indicated by advisory signs only without a black and white speed sign. They are warnings to alert drivers to be cautious of children, but the speed limit does not change from the previously posted limit.



A playground zone has a black and white 30 km/h sign below the yellow sign. Playground zone times are in effect starting at 8:30 a.m. and ending one hour after sunset daily.



A school zone has a black and white 30 km/h sign attached below the green school sign. The school zone speed limit is 30 km/h and is in effect from 7:30 a.m. to 4:30 p.m. on school days.

Except for school and playground zones during specified times, collector and local roads within the County operate at 50 km/h unless otherwise posted such as several hamlets that operate at 40 km/h.

<sup>1</sup> <https://open.alberta.ca/publications/number-of-licensed-drivers-by-city-as-of-march-31-date>

<sup>2</sup> <https://open.alberta.ca/publications/number-of-motorized-vehicles-registered-in-alberta-as-of-march-31-years>

## Section 2: Historical collision statistics

### 2.1 Overall: All roads within County borders

Over the last 10 years, total reported collisions in the County have dropped despite population growth until 2021 however there was an increase in 2022 and 2023. The number of collisions decreased in the last two years; speculation suggests that this can be attributed to less traffic on the roads due to the COVID-19 pandemic restrictions. In 2023, collision occurrences have increased closer to pre-pandemic levels, although total collisions were still lower than pre-2020 collision totals. Fatal and major injury collisions, however, have increased when compared to 2018 and 2019 data. This increase in major injury and fatal collisions may be attributed to the traffic volume increase and drivers adjusting back to normal traffic patterns, however, it is difficult to determine a cause.

Table 5: All collisions by severity within County borders 2014-2023

Year	Fatal	Major*	Minor**	PDO***	Total
2014	5	33	443	1,842	2,323
2015	5	59	537	1,808	2,410
2016	5	60	498	1,615	2,178
2017	6	49	467	1,646	2,168
2018	5	21	508	1,379	1,913
2019	7	21	474	1,281	1,783
2020	6	9	356	1,024	1,395
2021	4	10	331	881	1,226
2022	8	23	414	1,077	1,522
2023	7	46	449	1,062	1,564

\*One or more persons required hospitalization \*\*One or more persons injured \*\*\*Property damage only

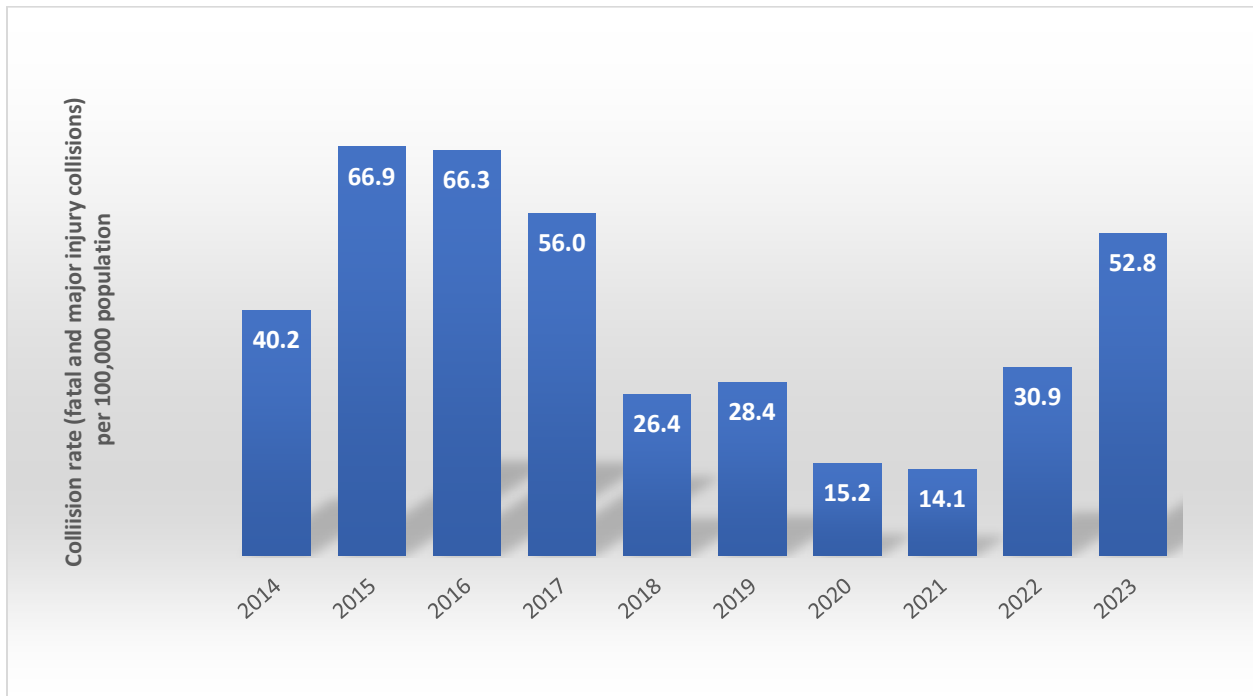
Table 6: Collision rates per 100,000 population on all roads within the County

Year	Fatal	Major*	Minor**	PDO***	Total
2014	5.3	34.9	468.6	1,948.5	2,457.4
2015	5.2	61.7	561.7	1,891.3	2,521.0
2016	5.1	61.2	507.9	1,647.2	2,221.5
2017	6.1	49.9	475.5	1,676.0	2,207.5
2018	5.1	21.3	516.4	1,401.7	1,944.5
2019	7.1	21.3	480.4	1,298.4	1,807.2
2020	6.1	9.1	359.8	1,034.9	1,409.9
2021	4.0	10.1	333.6	887.9	1,235.6
2022	8.0	22.9	412.5	1,073.1	1,516.5
2023	7.0	45.8	447.4	1,057.2	1,558.4

\*One or more persons required hospitalization \*\*One or more persons injured \*\*\*Property Damage Only

Figure 3 combines fatal and major injury collision statistics to better assess potential trends of our most serious collisions. As mentioned, the fatal and major injury rates were lower during the pandemic restriction period (2020-2021) and are returning to pre-pandemic levels. Six out of seven fatal collisions and most of the major injury collisions occurred on provincial highways, which run throughout the County.

Figure 3: Collision rates for fatal/major injuries – All roads in the County (2014-2023)



## 2.2 County roads only (Excluding provincial highways)

There was a total of 975 collisions that occurred on Strathcona County roads. There is a 34 per cent reduction in overall collisions over the last 10 years, with a two per cent increase since last year. One fatal and 21 major injury collisions occurred in 2023 on County roads. 98 per cent of collisions on County roads are minor injury and property damage only.

Table 7: All collisions by severity on County roads 2014-2023

Year	Fatal	Major*	Minor**	PDO***	Total
2014	1	16	266	1,189	1,472
2015	2	32	359	1,148	1,541
2016	1	36	329	1,046	1,412
2017	2	26	333	1,099	1,460
2018	0	10	343	906	1,259
2019	1	5	289	795	1,090
2020	2	4	208	708	922
2021	1	6	205	567	779
2022	0	9	269	678	956
2023	1	21	265	688	975

\*One or more persons required hospitalization \*\*One or more persons injured \*\*\*Property damage only

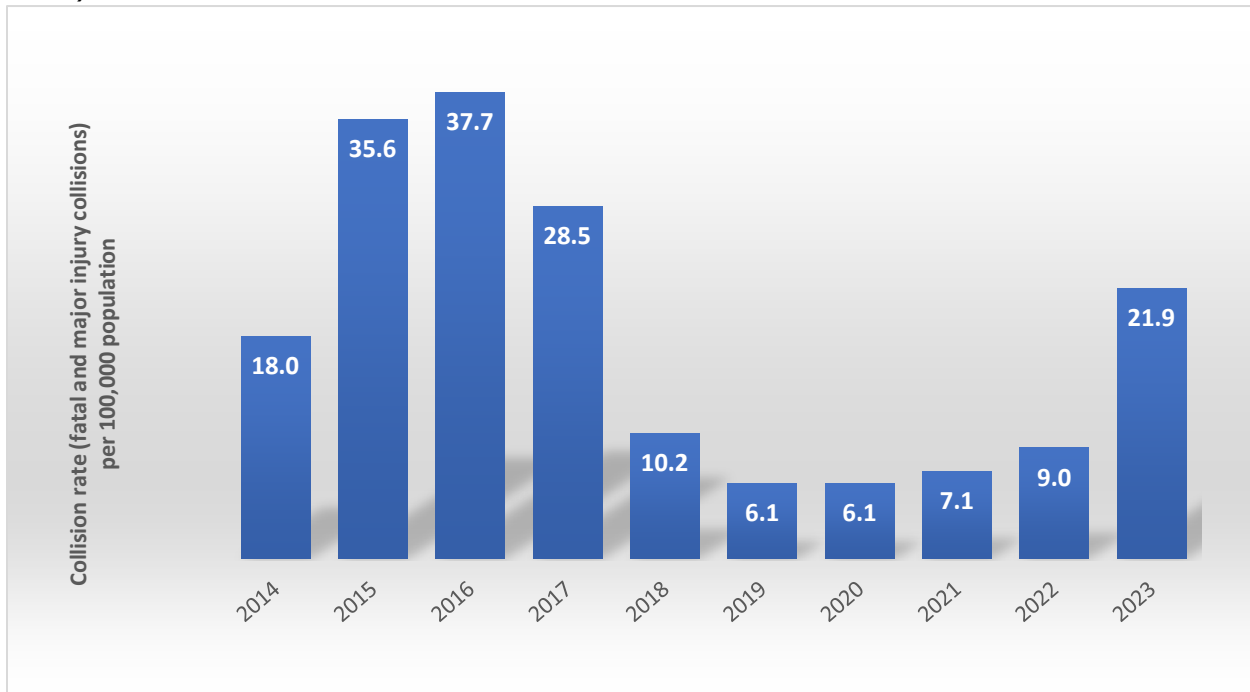
Collision rates in all categories showed a decreasing trend between 2013 to 2021 on County maintained roads. The major injury collision rate rose sharply in 2015, peaked in 2016, and declined from 2019 to 2021. Major injury collision rates increased substantially again in 2023 compared to the previous three years.

Table 8: Collision rates per 100,000 population on County roads only

Year	Fatal	Major*	Minor**	PDO***	Total
2014	1.1	16.9	281.4	1,257.8	1,557.1
2015	2.1	33.5	375.5	1,200.9	1,612.0
2016	1.0	36.7	335.6	1,066.9	1,440.2
2017	2.0	26.5	339.1	1,119.0	1,486.6
2018	0.0	10.2	348.6	920.9	1,279.7
2019	1.0	5.0	290.8	800.1	1,097.0
2020	2.0	4.0	207.3	705.3	918.8
2021	1.0	6.0	206.6	571.4	785.1
2022	0.0	9.0	268.0	675.6	952.6
2023	1.0	20.9	264.0	685.5	971.5

\*One or more persons required hospitalization \*\*One or more persons injured \*\*\*Property damage only

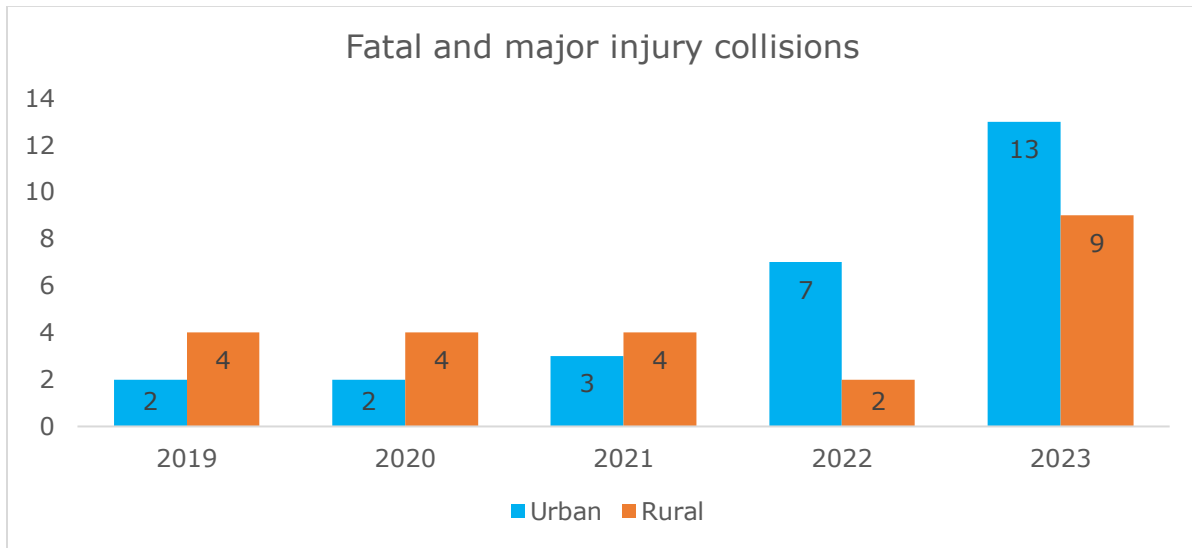
Figure 4: Collision rates for fatal/major injuries combined – County owned roads (2014-2023)



### 2.3 County owned rural vs urban collision trends

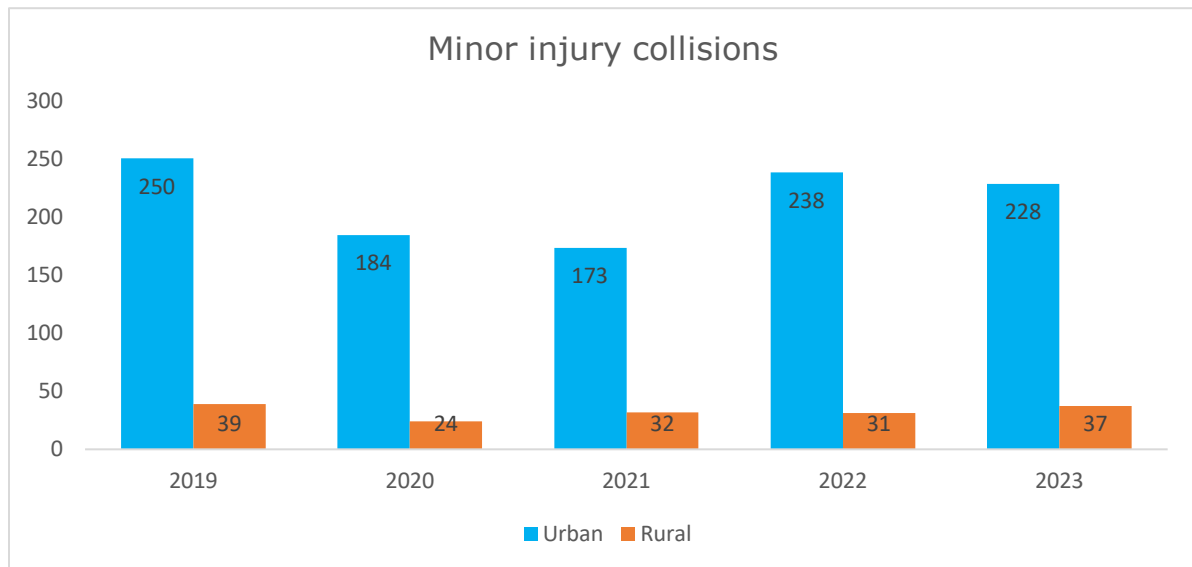
A spike in the number of fatal and major injury collisions occurred in 2023. Urban roads experienced more collisions of this severity, continuing a trend from 2022; however, rural roads had a larger increase overall compared to the previous year.

Figure 5: Fatal and major collisions urban vs rural County owned roads (2019-2023)



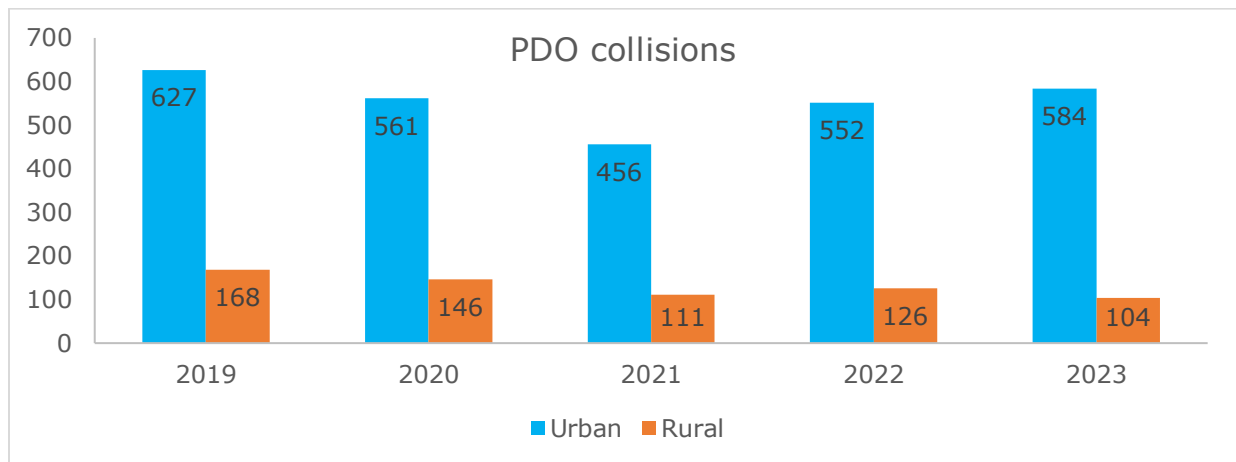
Minor injury collisions in the urban area were high in 2019 and experienced a downward trend until 2021, which was followed by an increase in 2022 and remained steady into 2023. Rural area minor injury collisions were constant and steady with no significant change when compared over the last five years.

Figure 6: Minor injury collisions urban vs rural County owned roads (2019-2023)



Similar to injury collisions, property damage only collisions had a downward collision trend in the urban area from 2019 to 2021 but increased in both 2022 and 2023. Rural area collision rates have been a slight downward trend over that same period.

Figure 7: PDO collisions - urban vs rural County owned roads (2019-2023)



## 2.4 Provincial highway collisions

Alberta Transportation operates 225 km of provincial highways within Strathcona County. Many of these provincial highways are freeways, which tend to have the lowest collision rate of any transportation facility. However, because of the high speeds that highways operated at, any collision that occurs tends to be serious.

This section focuses on the collisions that occur on provincial highways within Strathcona County. As previously indicated, over the past 10-years, most fatal and major injury collisions in the County occurred on a provincial highway. This is an expected outcome as provincial highways are generally the highest speed roads in the County and collision severity directly correlates to speed. In 2023, six of seven fatal collisions occurred on highways, resulting in six fatalities. While fatal collisions dropped slightly, major injury collisions increased significantly in 2023 compared to 2022.

Table 9: Provincial highway collisions (2021-2023)

Year	Fatal	Major	Minor	PDO	Total
<b>2021</b>	3	4	126	314	447
<b>2022</b>	8	14	145	399	566
<b>2023</b>	6	25	185	374	590

Figures 8 and 9 show comparisons of fatal and major injury collisions on provincial highways versus County owned roads.

Figure 8: Fatal collisions – Provincial highways vs County roads (2021-2023)

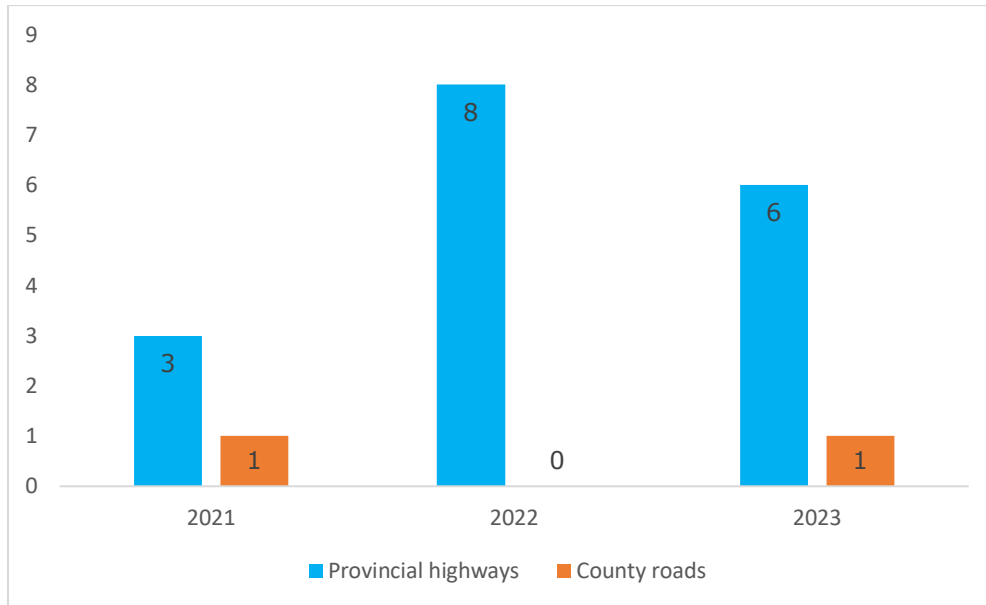
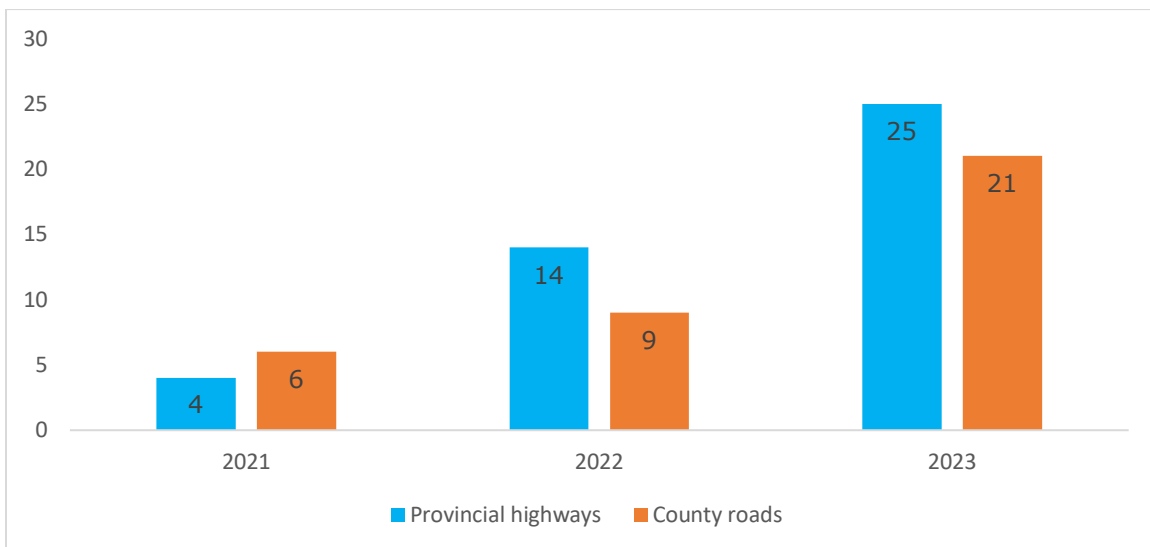


Figure 9: Major injury collisions – Provincial highways vs County roads (2021-2023)



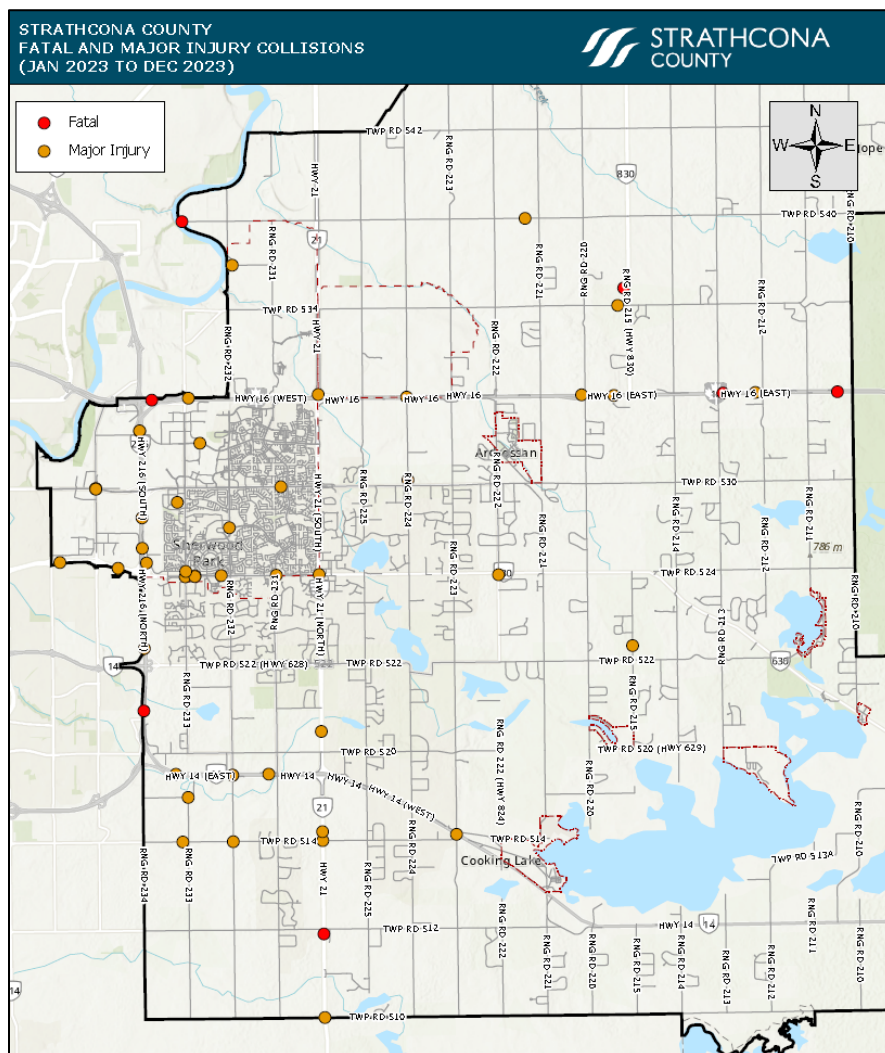


### 3.3 Major and fatal collisions

In keeping with Strathcona County's Traffic Safety Strategic Plan (TSSP), our goal is to specifically reduce collisions that cause serious injury and death. There were seven fatal and 46 major injury collisions in Strathcona County in 2023.

The following two maps illustrate the location of fatal and major injury collisions in Strathcona County. Collisions are scattered across the County and there are no patterns or hot spot locations indicated by the 2023 data. However, the data identified specific collision types that are represented in the set of serious collisions. Right angle collisions accounted for 12 out of 53 combined fatal and injury collisions, followed by 11 head-on collisions, and nine struck object type collisions.

Detailed analysis of these collisions is included throughout the report, as a deeper understanding of the events and conditions that resulted in fatal and major injury collisions is important to help determine the most appropriate engineering, education, enforcement, or engagement related countermeasures to reduce the probability of another similar collision.



### 3.4 Drivers' prior action

Followed too closely was the most common prior action of drivers involved in collisions in 2023.

For fatal and injury (including major and minor injury) the top eight driver actions were:

1. Followed too closely/rear-ended
2. Left turn across path
3. Disobey traffic signal
4. Stop sign violation
5. Ran off road
6. Fail to yield right-of-way to pedestrian
7. Left of center
8. Improper lane change

For collisions that involved property damage only, the top eight driver actions were:

1. Followed too closely/rear-ended
2. Struck parked vehicle(s)
3. Left turn across path
4. Backed unsafely
5. Improper lane change
6. Improper turn
7. Ran off road
8. Stop sign violation

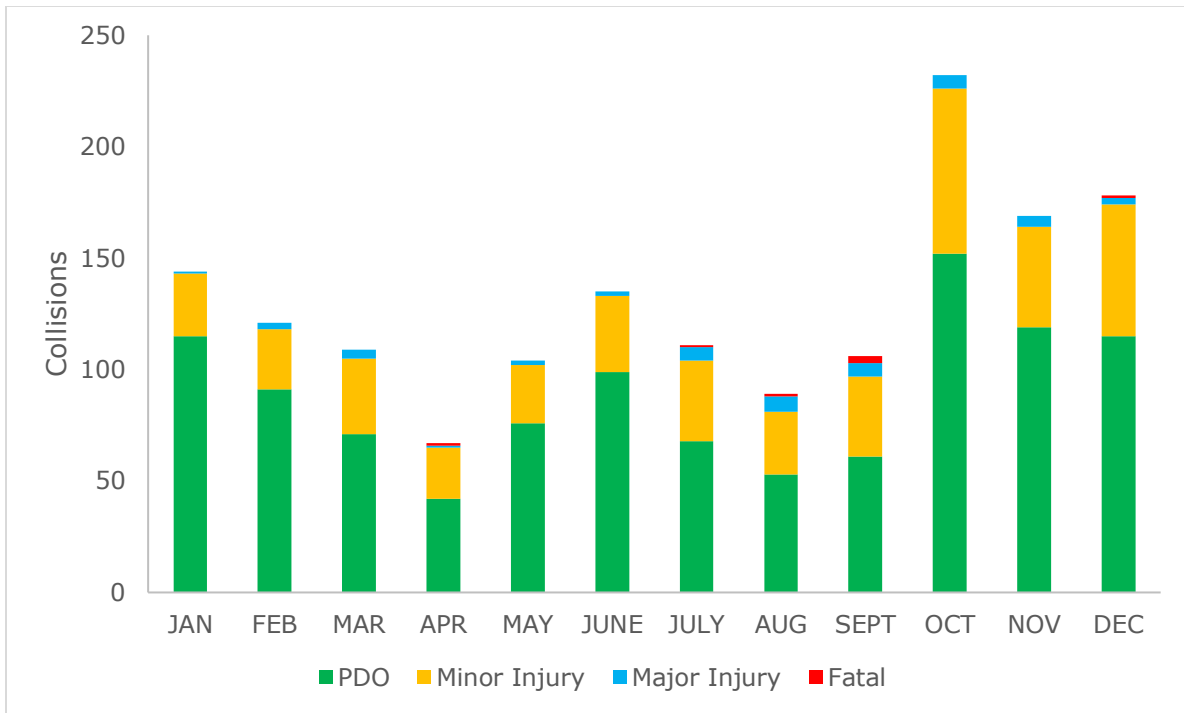
Side impact (T-bone, left turn across path, right angle) collisions are the most serious collision type for vehicle occupants, as major injury or death is increasingly likely for speeds greater than 50 km/h. Not surprisingly, the causes of injury collisions were more likely to be 90-degree side impact collisions than those recorded in PDO collisions.

### 3.5 Temporal analysis

#### *Monthly*

The highest number of fatal and major injury collisions occurred in September with eight in that month. Minor injury and PDO collisions were most common in October. Generally, PDO collisions were high in the late fall and winter months and lowest in the summer.

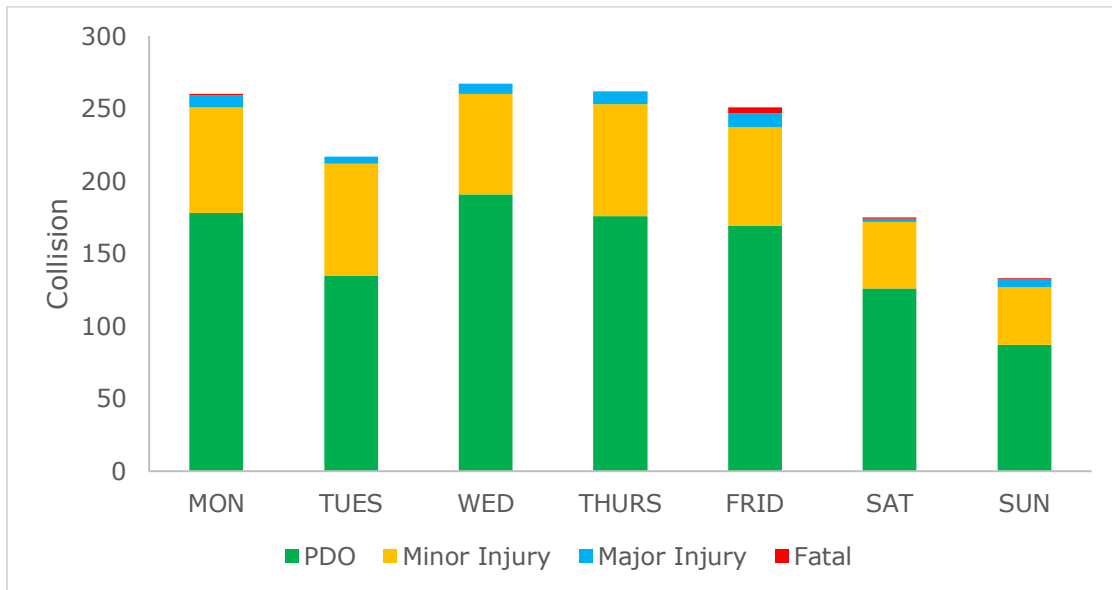
Figure 10: Collisions severity by month - 2023



*Day of the week*

Friday was the most common day of the week for fatal and major injury collisions in 2023. The highest number of minor injury and PDO collisions occurred during Wednesday and Thursday.

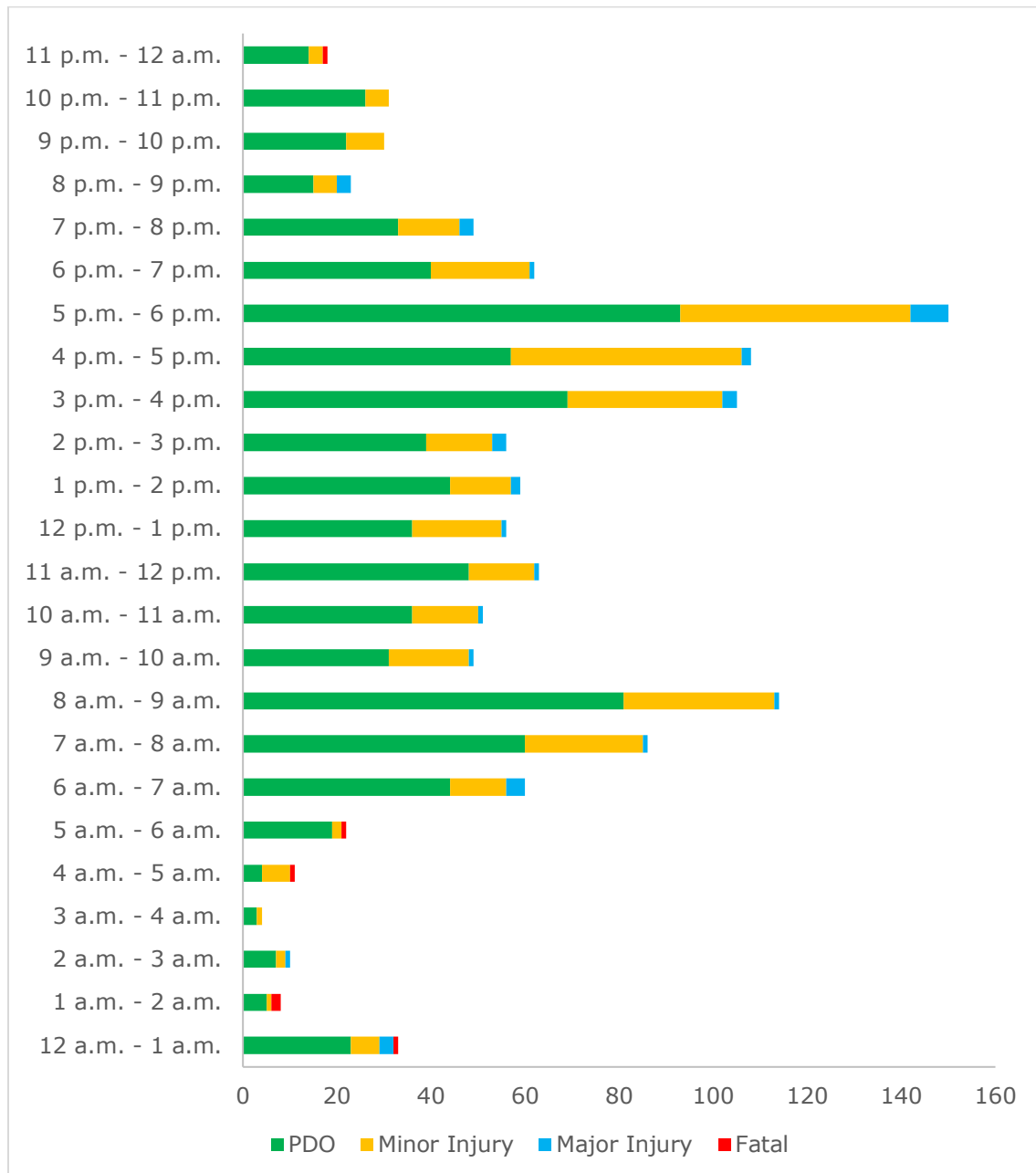
Figure 11: Collision severity by day of the week - 2023



### Time of day

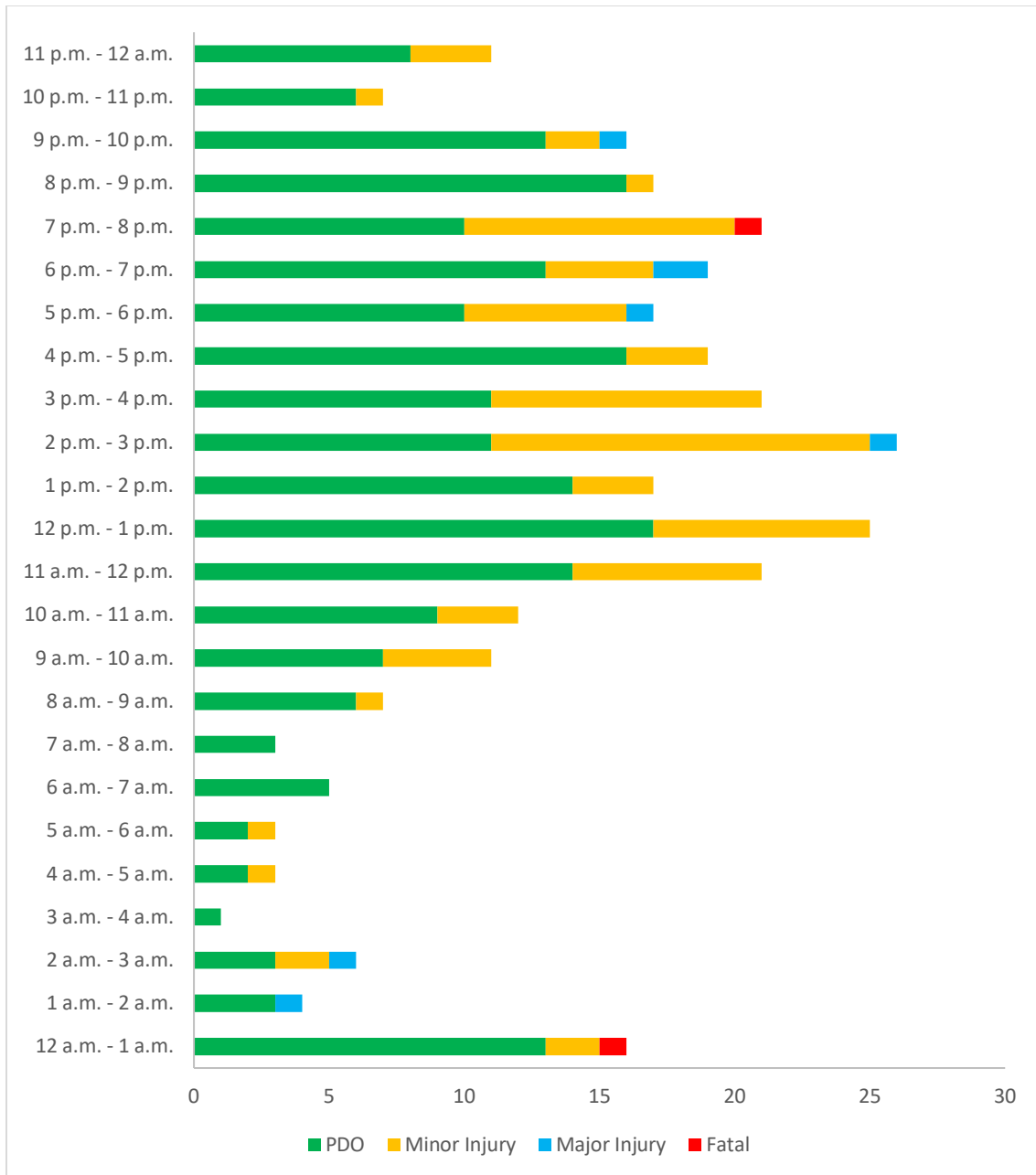
On weekdays, major and minor injury collisions were most prevalent during morning and afternoon rush hour peaks. All fatal collisions on weekdays occurred at night or early morning hours in low light conditions.

Figure 12: Collisions by time of day – 2023 (weekdays)



On weekends, collisions generally peak around noon and early afternoon. This is most marked with injury collisions, which are most likely to occur between 2 and 3 p.m.

Figure 13: Collisions by time of day – 2023 (Weekends)



### 3.6 Intersection-related collisions

In 2023, 46 per cent of the collisions in Strathcona County were intersection related. None of the seven fatal collisions and half of major injury collisions were intersection related. In the minor injury category, more collisions occurred at intersections, while property damage only collisions mostly occurred at non-intersection locations.

Figure 14: Fatal and major injury collisions - 2023

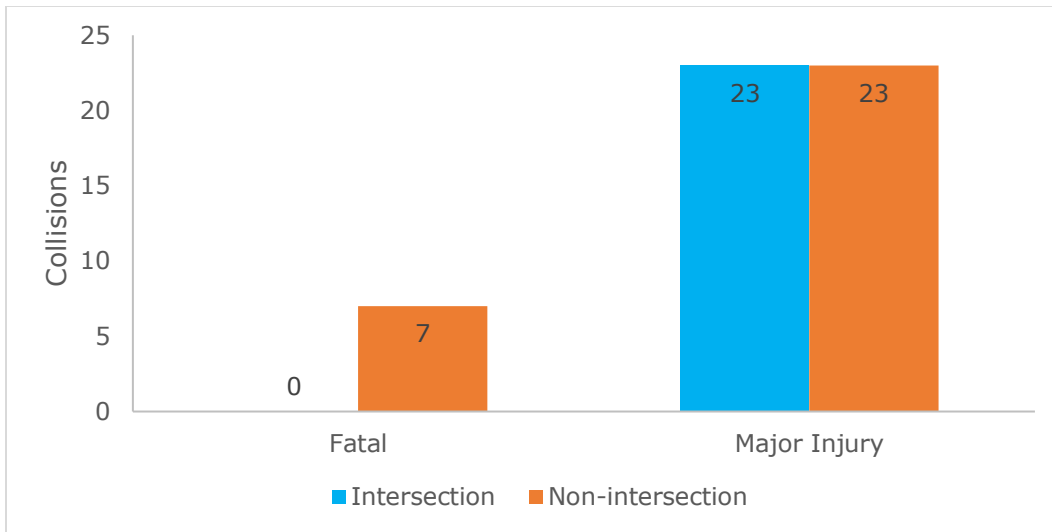
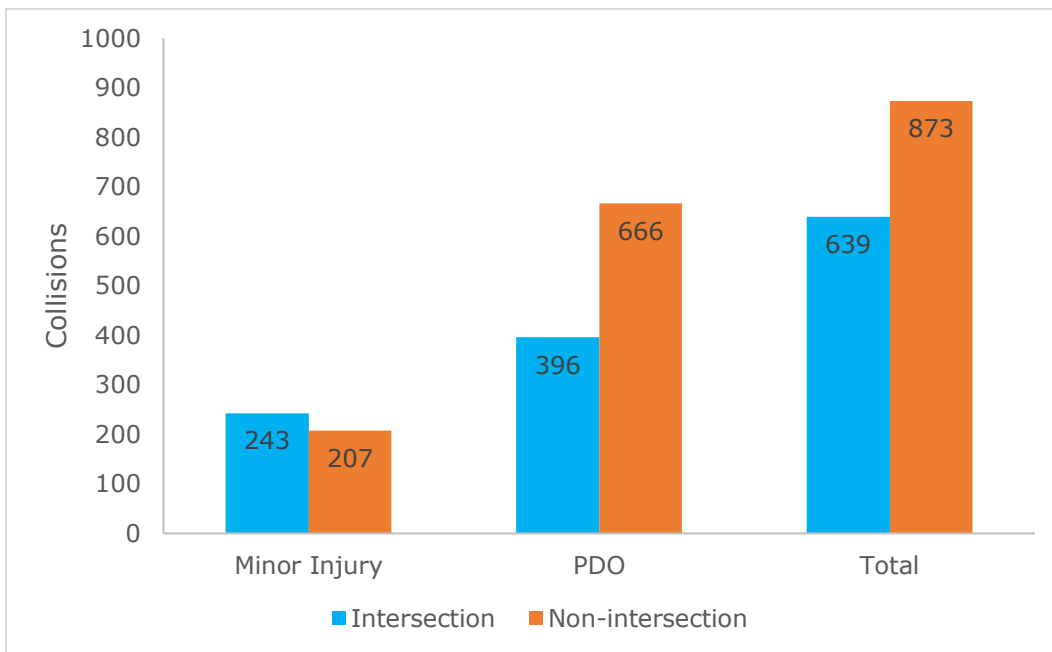


Figure 15: Minor injury, PDO and total collisions - 2023



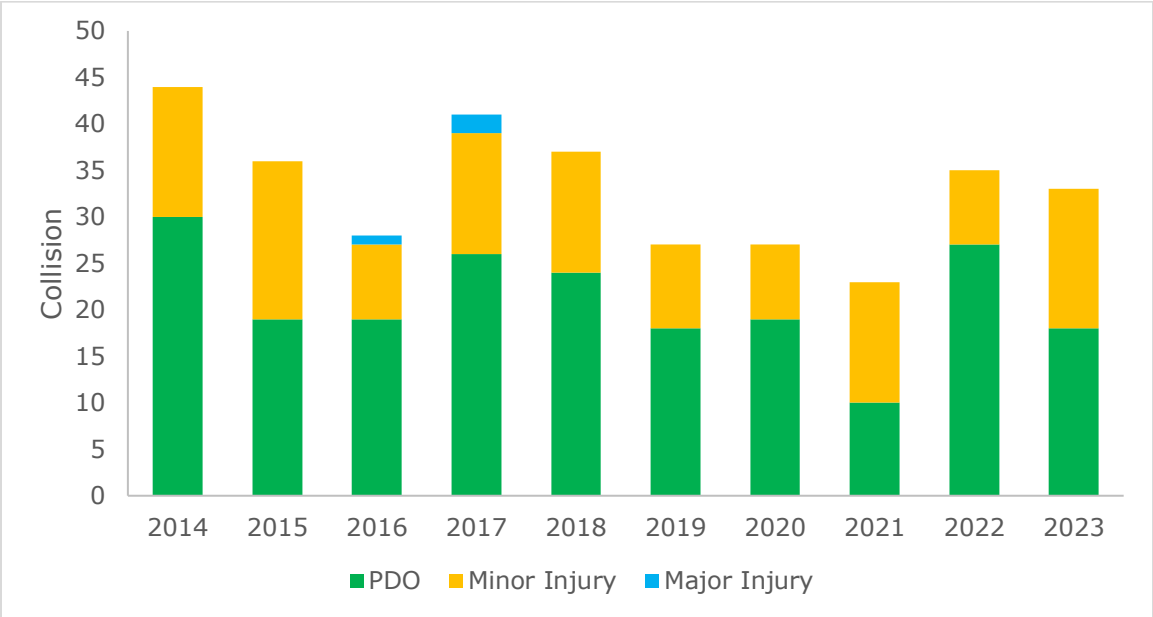
### 3.6.1 Intersection rankings by frequency

Intersections were ranked based on the greatest number of total collisions in last 10 years (2014-2023) collision data. The collisions within 50m of the intersection are considered as intersection-related collisions. The top five intersections in the County are discussed in detail. These intersections also have the highest volumes among other intersections, which is typical for high collision locations.

**Rank 1: Baseline Road and Sherwood Drive**

This intersection has experienced 332 collisions in the last 10 years. There were three major injury collisions (three major injuries), 118 minor injury collisions (168 minor injuries) and 211 property damage only collisions. Most of the collisions were rear end, averaging at 74 per cent of the total collisions. The over-representation of rear-end collisions may be attributed to slippery road surface conditions, followed to closely and drivers’ failure to drive according to the road conditions.

Figure 17: Baseline Road/Sherwood Drive collision history (2014-2023)

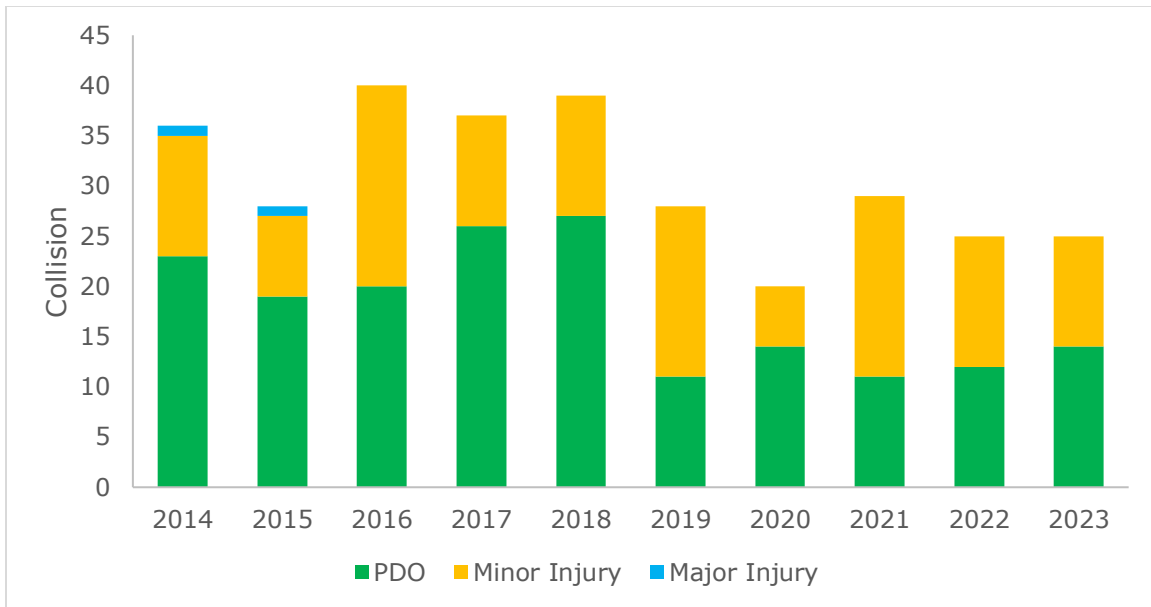


This intersection is the second highest volume location in the County with an average weekday traffic count of 64,200 vehicles per day (2018). From Figure 17, minor injury collisions frequency experienced a substantial increase in 2021 and a return to previous levels in 2022. In 2023, minor injury collision frequency increased again.

**Rank 2: Baseline Road and Broadmoor Boulevard**

This intersection has experienced 309 collisions in last 10 years. There were two major injury collisions (four major injuries), 122 minor injury collisions (164 minor injuries) and 185 property damage only collisions. Like Baseline Road and Sherwood Drive intersection, most of the collisions were rear end, averaging 64 per cent of the total collisions. The over-representation of rear-end collisions may be attributed to slippery road surface conditions, followed to closely and drivers’ failure to drive according to the road conditions.

Figure 16: Baseline Road/Broadmoor Boulevard collision history (2014-2023)



This intersection has the highest traffic volume with 66,200 vehicles per day (average weekday traffic) according to 2018 traffic counts. Figure 16 shows a downward collision trend over the last 10 years. No major injury collisions have been reported since 2015, while minor injury collisions fluctuated slightly during the same period. In 2023, minor injury collisions continued to trend downwards from 2019 frequency (except for unusual traffic conditions in 2020 during COVID-19).

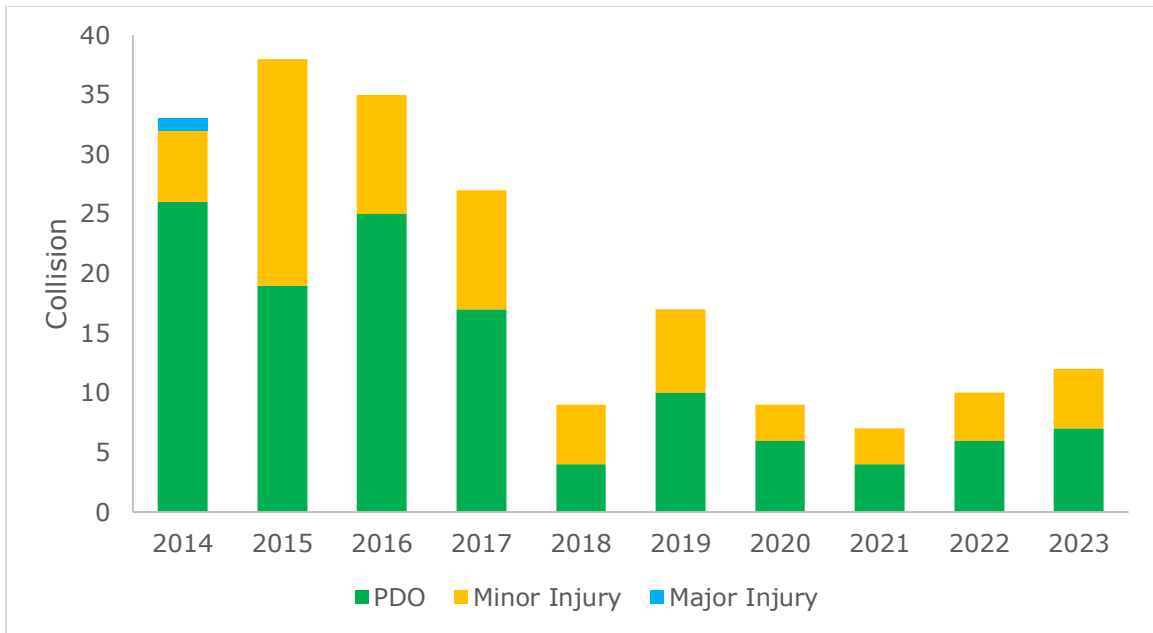
Rear end collisions have been on a slight downward trend since 2016. Slippery road surface condition was the contributor to some collisions. Wet and slush/snow/ice road conditions were reported in 40 per cent of collisions which could contribute to rear end collisions. Left turn across path (LTXP) were 12 per cent and sideswipe same direction were 11 per cent of the total collisions being the second and third highest collision type.

### Rank 3: Sherwood Drive and Broadmoor Boulevard (Traffic Circle)

This intersection has experienced 198 collisions in last 10 years. There was one major injury collision (one major injury), 73 minor injury collisions (104 minor injuries) and 124 property damage only collisions. The rear end collisions accounted for 53 per cent of all collisions whereas sideswipe same direction were 36 per cent.



Figure 18: Sherwood Drive/Broadmoor Boulevard collision history (2014-2023)



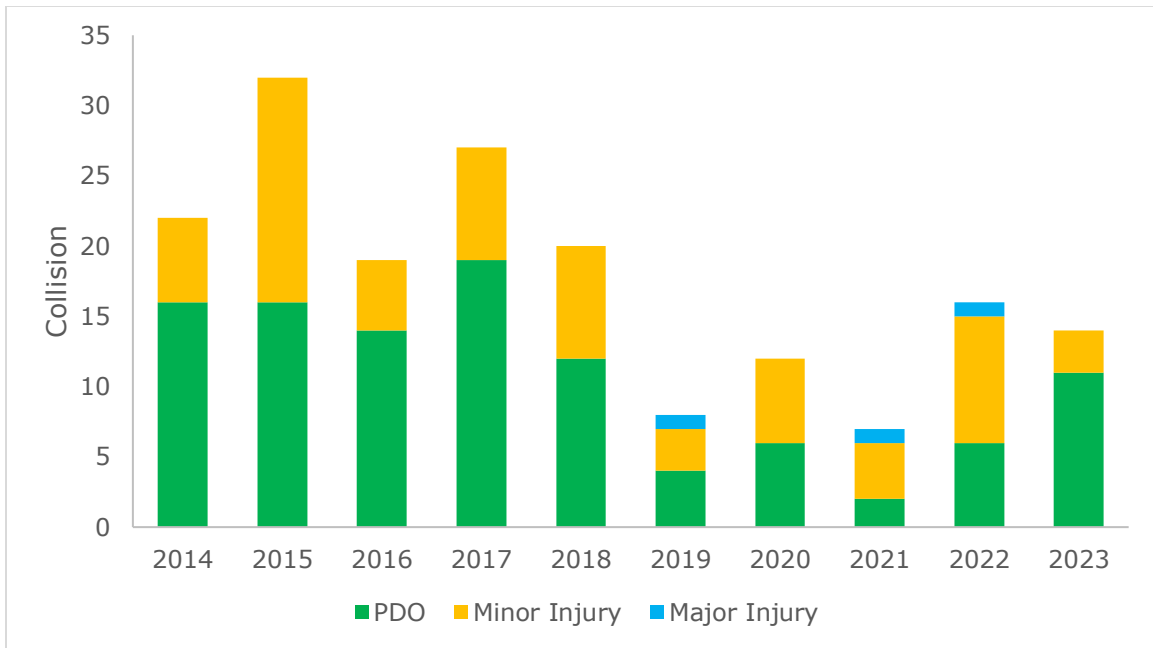
Average weekday traffic is 29,400 vehicles per day. Figure 18 shows a decreasing trend in the frequency of overall collisions. There have been no major injury collisions at this location since 2014. Both Property damage only and minor injury collisions have dropped significantly with the implementation of geometric changes.

The frequency of sideswipe same direction collisions has also dropped since the changes were made to the traffic circle in 2016. Rear end collisions at the roundabout entry points are now the most common cause of collision at this location, with followed too closely as the contributing factor to many collisions.

#### Rank 4: Baseline Road and Clover Bar Road

This intersection has experienced 179 collisions in last 10 years. There were three major injury collisions (four major injuries) at this location, 68 minor injury collisions (91 minor injuries) and 108 property damage only collisions. Rear end collisions account for an average of 62 per cent, LTXP for 13 per cent and right-angle collision were six per cent of the total collisions.

Figure 19: Baseline Road/Clover Bar Road collision history (2014-2023)



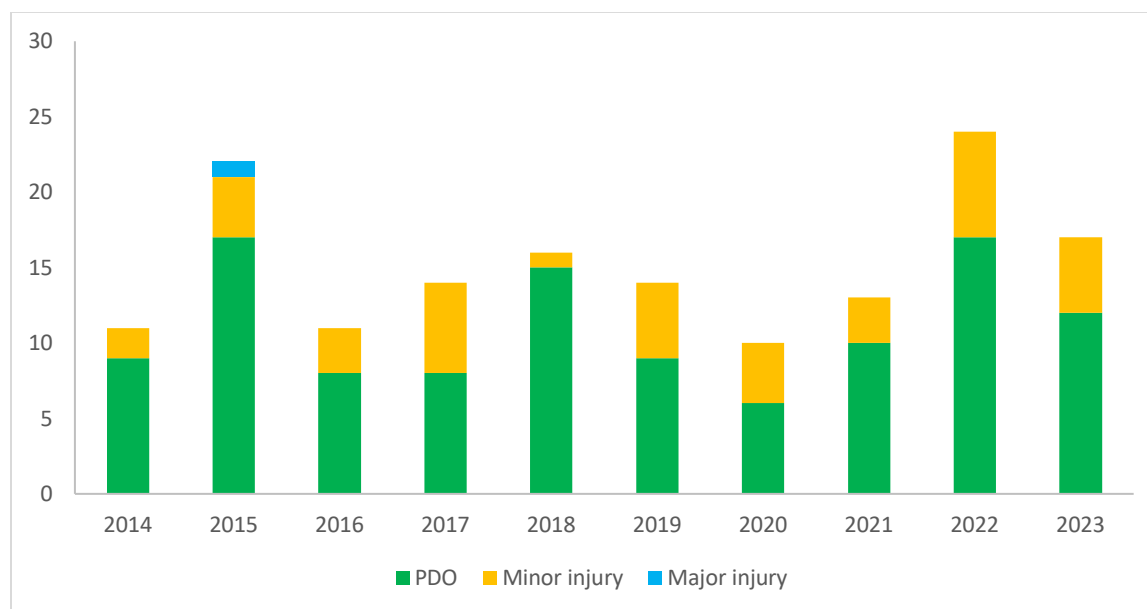
This intersection is also the fourth highest traffic volume location in the County with average weekday traffic of 47,200 vehicles per day (2018). Figure 19 shows a decreasing trend in the frequency of overall collisions. In 2023, minor injury collisions decreased compared to 2020-2022.

The decrease in overall collision frequency is due to a decrease in rear end and LTXP collisions which are a direct result of traffic signal phase changes and intersection upgrades with improved geometry of left turn lanes.

### Rank 5: Wye Road and Ordze Road

This intersection has experienced 152 collisions in last 10 years. There was one major injury collisions (Two major injuries), 40 minor injury collisions (57 minor injuries) and 111 property damage only collisions. Left turn across path collisions accounted for 50 per cent of collisions while rear-end and sideswipe same direction collisions account for 23 per cent and 11 per cent respectively.

Figure 20: Wye Road/Ordze Road collision history (2014-2023)



This intersection is the seventh highest traffic volume location in the County with average weekday traffic of 37,000 vehicles per day (2023). Collisions were on a decreasing trend from 2019 to 2022 but saw an increase in 2023. The collision frequency was higher in 2015 and 2022 when compared to other years. Drivers’ failure to yield to the oncoming through traffic was the main contributor to majority of the left turn across path collisions.

### 3.7 Neighbourhood collisions

According to the County’s street network, collector and local roads serve neighbourhoods. There were no fatal and no major injury collisions on the residential collector or local road network in 2023. Struck object and backing were the main collision types on neighbourhood roads, resulting mainly in property damage only collisions. Struck object includes drivers’ failing to drive according to the road conditions, losing control and colliding with parked vehicles and other road objects such as curbs, medians, corner islands, etc.

Table 10 shows the location of fatal and major injury collisions. The majority of collisions were on highways in both 2022 and 2023.

Table 10: Major injury and fatal collisions 2022/2023 by location

Road type	2022		2023	
	Fatal	Major	Fatal	Major
Collector	0	1	0	1
Arterials	0	8	1	18
Highways	8	14	6	25

### 3.8 Wildlife collisions

In 2023, 17 per cent of all reported collisions were wildlife related. 14 per cent of those reported collisions were minor/major injury and fatal collisions. Overall, there was a 10 per cent increase in the number of wildlife collisions from 2022 to 2023. One wildlife major injury collision and one fatal wildlife collision occurred in 2023. Both were caused by a vehicle striking a moose and both occurred on provincial highways. Deer related collisions accounted for 79 per cent of the total wildlife related collisions followed by moose at 13 per cent.

Table 11: 2022/2023 Wildlife collisions in Strathcona County

Severity	2022	2023	Change
Fatal	0	1	1 ▲
Major injury	2	1	1 ▼
Minor injury	23	34	11 ▲
PDO	214	226	12 ▲
Total	239	262	23 ▲

Table 12: Wildlife collision by type

Animal type	Fatal	Major	Minor	PDO	Total
Deer	0	0	26	181	207
Moose	1	1	8	23	33
Coyote/wolf	0	0	0	9	9
Goose	0	0	0	1	1
Other	0	0	0	12	12

### 3.9 Demographics

Individuals aged 25 to 34 were the most likely to be injured in a motor vehicle collision in 2023. Of the seven fatalities, three drivers were 25 to 34 and two drivers were 65 to 74.

Table 13: Fatalities and injuries as a result of 2023 collisions by age

Age Group	Fatal	Major	Minor	Total
0-5	0	0	3	3
6-11	0	0	2	2
12-15	0	0	6	6
16-18	0	0	36	36
19-24	0	3	56	59
25-34	3	10	124	137
35-44	1	10	98	109
45-54	0	6	105	111
55-64	1	12	63	76
65-74	2	5	33	40
75+	0	3	14	17
Unknown	0	16	131	147
Total	7	65	671	743

Of the seven fatalities, five were drivers, one was a cyclist, and one was a pedestrian. All seven were male.

Table 14: Fatalities and injuries as a result of 2023 collisions by gender

Gender	Fatal	Major	Minor	Total
Female	0	13	274	287
Male	7	36	272	315

## 3.10 Vulnerable road user collisions

### 3.10.1 Pedestrian collisions

There was a total of 11 pedestrian collisions in Strathcona County in 2023, resulting in seven minor injuries, one major injury, and one fatality. The collision resulting in a fatality was caused by a pedestrian walking out in front of a vehicle travelling on a provincial highway. Most pedestrian collisions occurred in early morning or evening hours suggesting that light conditions and pedestrian visibility may be a contributing factor to the collisions.

Table 15: Pedestrian collisions 2022 and 2023 by severity

Severity	2022	2023	Change
Fatal	0	1	1 ▲
Major	1	2	1 ▲
Minor	6	7	1 ▲
PDO	0	1	1 ▲
Total	7	11	4 ▲

Table 16: Location of pedestrian collisions – 2023

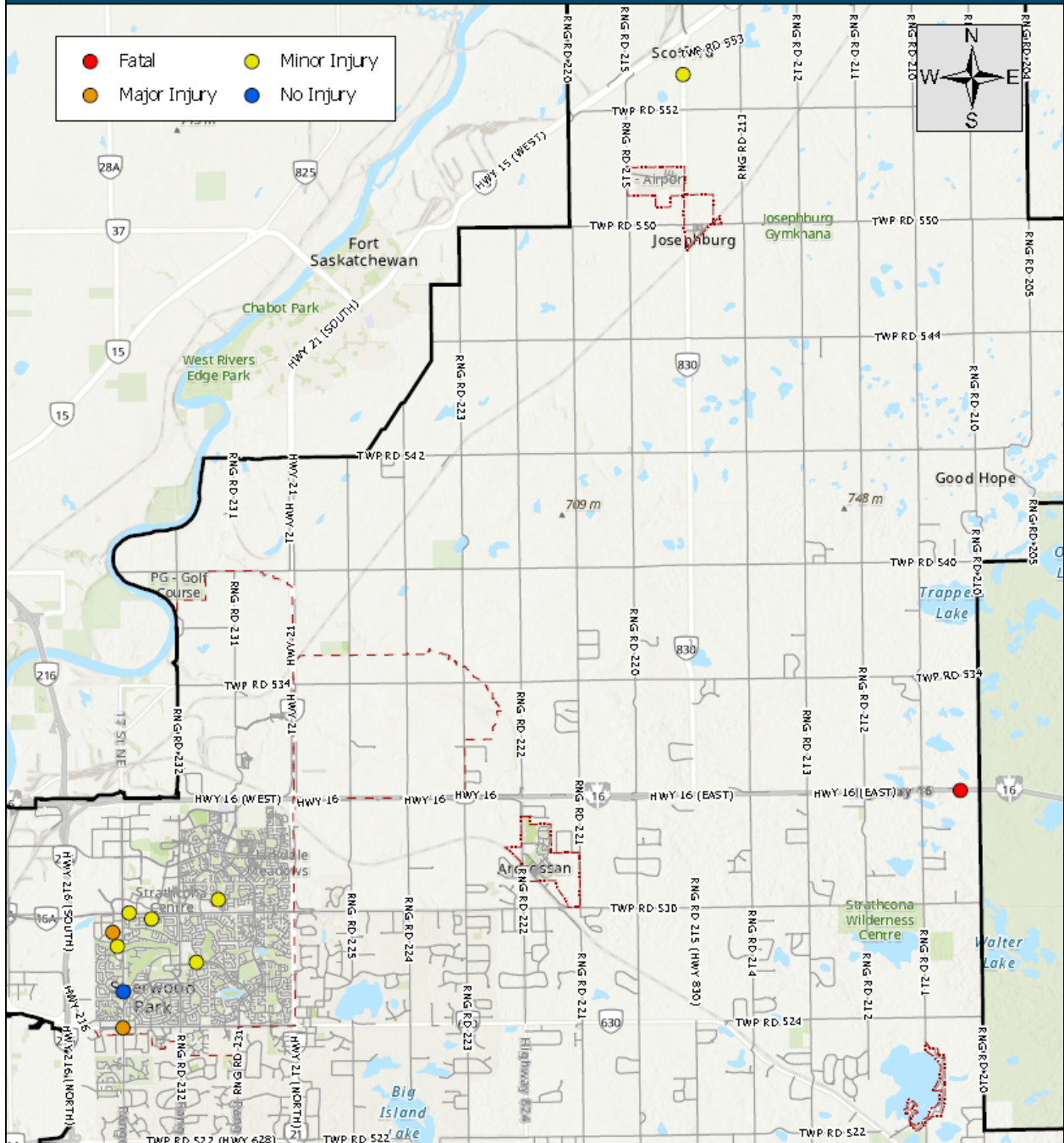
Severity	Highway	Arterial	Collector/Local	
			Residential	Non-residential
Fatal	1	0	0	0
Major	1	1	0	1
Minor	0	3	3	0
PDO	0	1	0	0
Total	2	5	3	1

Eight out of 11 pedestrians were males, three were under 18 years of age and one over 65 years of age.

Table 17: Injuries/fatalities from pedestrian collisions by age and gender – 2023

Number	Age	Gender	Severity
1	10	Female	Minor
2	10	Male	Minor
3	14	Male	Minor
4	41	Male	Minor
5	48	Male	Major
6	48	Female	Minor
7	51	Male	Minor
8	52	Male	Minor
9	62	Male	Fatal
10	76	Female	Major

**STRATHCONA COUNTY  
PEDESTRIAN COLLISIONS  
(JAN 2023 TO DEC 2023)**



### 3.10.2 Bicycle collisions

There were 10 bicycle collisions reported in Strathcona County, resulting in seven minor injuries, one major injury, and one fatality.

Table 19: Bicycle collisions 2022/2023 by severity

Severity	2022	2023	Change
Fatal	0	1	1 ▲
Major Injury	0	1	1 ▲
Minor Injury	5	6	1 ▲
PDO	1	1	-
Total	6	9	3 ▲

The only fatal bicycle collision occurred on a provincial highway and was caused by an impaired driver. The only major injury was on a rural arterial roadway.

Table 20: Location of bicycle collisions - 2023

Severity	Highway	Arterial	Residential collector/local
Fatal	1	0	0
Major	0	1	0
Minor	0	5	1
PDO	0	1	0
Total	1	7	1

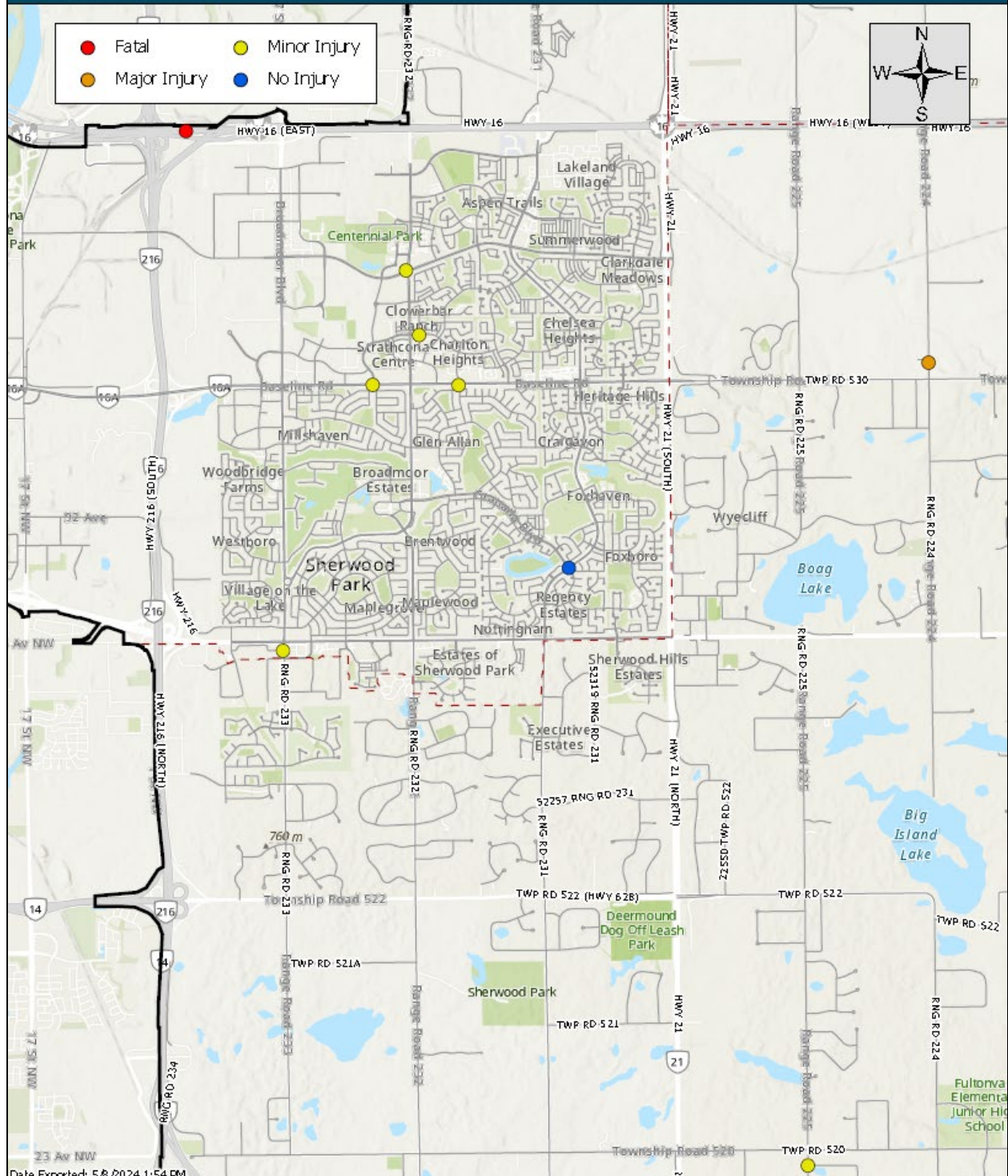
Cyclist collisions involved five males and one female. Four out of six were 18 years of age or under, the remaining cyclists were adults.

Table 22: Fatality and injuries as a result of 2023 bicycle collisions by age and gender

Number	Age	Gender	Severity	Location
1	12	Male	Minor	Arterial
2	14	Male	Minor	Collector
3	14	Male	None	Arterial
4	17	Male	Minor	Arterial
5	19	Male	Minor	Arterial
6	29	Male	Fatal	Highway
7	56	Male	Minor	Arterial
8	68	Male	Major	Arterial
9	Unknown	Unknown	None	Arterial



**STRATHCONA COUNTY  
BICYCLE COLLISIONS  
(JAN 2023 TO DEC 2023)**



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### 3.10.3 Motorcyclist collisions

There was a total of 20 motorcycle collisions in Strathcona County in 2023. These collisions resulted in zero fatalities, three major injuries and 16 minor injuries. Two of the major injury and six of the minor injury collisions occurred on provincial highways with the remaining occurring on County roads.

Table 23: Motorcycle collisions 2022/2023 by severity

Severity	2022	2023	Change
Fatal	2	0	2 ▼
Major	2	3	1 ▲
Minor	6	13	7 ▲
PDO	0	4	4 ▲
Total	10	20	10 ▲

Based on collision history, unsafe driving was a major factor in motorcycle collisions, resulting in one major and three minor injury collisions. One collision occurred when a motorcyclist was avoiding an animal and four collisions occurred when the motorcyclists were driving properly. See below table summarizing prior actions of motorcyclists.

Table 24: Prior actions of motorcyclist contributing to collisions – 2023

Prior action	Fatal	Major	Minor	PDO	Total
Avoiding animal/vehicle	0	2	3	0	5
Unsafe driving	0	0	3	1	4
No action	0	1	7	3	11

### 3.11 Commercial vehicle collisions

Commercial vehicles include trucks under 4,500 kg, buses, and tractor trailers. Two of total seven fatal collisions involved a commercial vehicle. Overall, the number of collisions involving commercial vehicles decreased by eight per cent from 2022.

Table 25: Commercial vehicle collisions 2022/2023 by severity

Severity	2022	2023	Change
Fatal	3	2	1 ▼
Major	3	9	6 ▲
Minor	27	27	-
PDO	73	60	13 ▼
Total	106	98	8 ▼

### 3.12 Impaired driving collisions

Alcohol was a contributing factor in 42 collisions in 2023, including two fatal collisions causing two fatalities, one major collision causing six major injuries and 17 minor injury collisions causing 21 minor injuries. Overall, the number of collisions involving an impaired road user increased by 91 per cent when compared to 2022.

Table 26: Alcohol related collisions 2022/2023 by severity

Severity	2022	2023	Change
Fatal	1	2	1 ▲
Major	1	1	-
Minor	4	17	13 ▲
PDO	16	22	6 ▲
Total	22	42	20 ▲

### 3.13 Private property collisions

So far, the analysis has only considered collisions on public roads. However, approximately 42 per cent of total reported collisions are on private property, including parking lots and private driveways. There were 658 collisions in 2023 including 44 minor injury collisions causing 57 minor injuries and two major injury collisions causing two major injuries on private property. 93 per cent of private property collisions result in PDO, suggesting that they mostly occurred at low speeds. 89 per cent of private property collisions were due to striking parked vehicles or unsafe backing of vehicles.

Table 27: Private property collisions 2022/2023

Severity	2022	2023	Change
Fatal	0	0	-
Major	0	2	2 ▲
Minor	30	44	14 ▲
PDO	493	612	119 ▲
Total	524	658	134 ▲

## 4.0 Appendix- Glossary of Terms

Definitions of terms used in this report:

### Backing

Any multi-vehicle collision when at least one vehicle was in the act of backing up.

### Bicyclist

A collision involving a vehicle and a bicycle that is in the act of being ridden or stopped in the roadway, but currently mounted by the cyclist.

### Fatal collision

A traffic collision that results in one or more fatalities within thirty days of the collision.

### Head-on

Two vehicles approaching opposite directions and intending to continue in opposite directions collide in a frontal or angular manner as a result of one or both vehicles crossing the painted or unpainted centerline or divided median of the roadway. This includes a collision resulting from one vehicle traveling the wrong way down a divided highway.

### **Left turn across path**

Two vehicles approaching from opposite directions collide as a result of at least one vehicle attempting to make a left or U turn in front of the opposing vehicle.

### **Major injury**

A person(s) was admitted to the hospital because of injuries sustained in the collision.

### **Minor injury**

Any injuries such as bruises, abrasions, limping, etc., whether visible or self-reported.

### **Pedestrian**

A collision involving a vehicle and pedestrian in which the collision between the two is the primary event and took place within the road. This type includes a vehicle colliding with someone walking their bicycle.

### **PDO**

Property damage only collision.

**Rear-end** Two vehicles in a position of one behind the other and collide, regardless of what movement(s) either vehicle was in the process of making except for one or both vehicles backing.

### **Right**

Two vehicles approaching from non-opposing angular directions collide, typically resulting as one vehicle failed to either stop or yield right of way from a Stop or Yield sign, ran a red light, or was not cleared from the intersection upon the onset of the conflicting movement's green signal.

### **Rollover**

A collision in which a vehicle rolls over on or off the roadway without first having been involved in some other type single or multiple vehicle collision. This includes motorcycle collision in which the operator loses control of and drops bike, but had not initially struck another motor vehicle, fixed or non-fixed object, animal, cyclist, or pedestrian.

### **Sideswipe – Opposite direction**

Two vehicles approaching opposite directions and intending to continue in opposite directions collide in a sideswiping manner as a result of one or both vehicles crossing the

painted or unpainted centerline or divided median of the roadway. This also includes a collision resulting from one vehicle traveling the wrong way down a divided highway.

### **Sideswipe - Same direction**

Two vehicles moving alongside each other and collide, with at least one of the vehicles being struck on the side. This type would include a collision resulting from one of the vehicles making an improper turn such as a left from the right lane or vice-versa or turning right from the appropriate outside lane and striking a vehicle passing on the right shoulder.

### **Struck object**

A single vehicle in collision with a fixed or moveable object on the road surface. i.e. rocks, animals, pedestrians, powerlines, or overpass structure. This configuration can also be used for non-collision events such as fires/explosions and rollovers where the vehicle did not leave the road surface.

### **Vulnerable road user**

Road users who are in an unprotected state or have less external protection, i.e., pedestrian, motorcyclist, or bicyclist.

### **Vulnerable road user collision**

A collision involving a vehicle that collides with either a pedestrian, motorcyclist, or bicyclist.

### **Wildlife**

A collision involving a vehicle striking wildlife, such as a deer.