



Encl 3 Strathcona County Traffic Collision Statistics Report 2016.docx

2016

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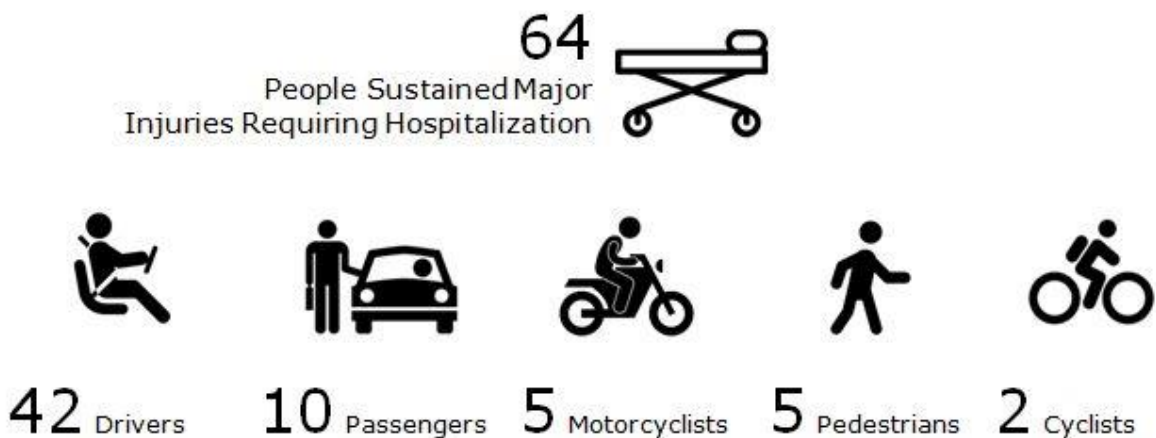
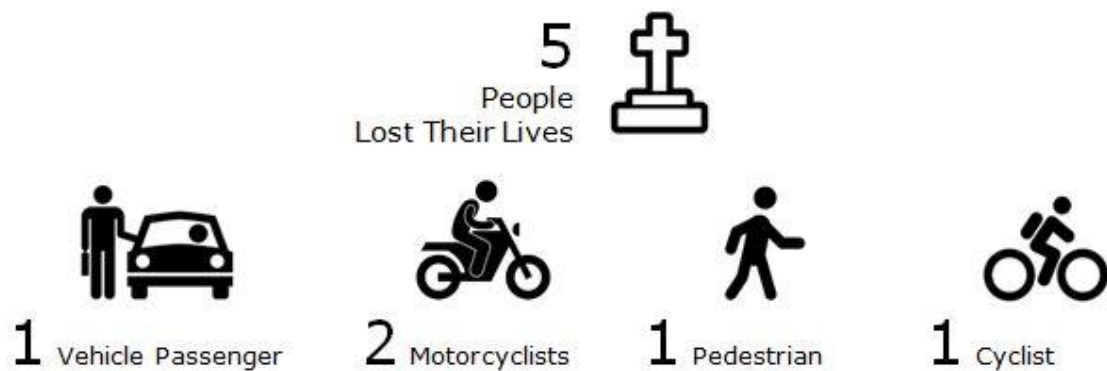
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As a Result of Collisions in 2016:



The estimated direct cost of collisions in 2016 in Strathcona County was

\$56 Million

2016 Collision Quick Facts

- 2,178 collisions occurred on public roadways; 35% of these collisions happened on provincial highways
- 5 fatal collisions occurred on public roads; all were males over 25 years old
- 558 injury collisions occurred on public roadways; these resulted in 64 major injuries requiring hospitalization and 709 minor injuries to road users
- Individuals aged 19-34 were the most likely to be injured in a collision
- 12% of major injury collisions (7) in 2016 took place on residential roads
- 49% of all collisions occurred at intersections
- Followed Too Close was the most common cause of collisions in 2016
- The highest number of fatal and injury collisions took place in June. Property damage only collisions were most common in January.
- Collision primetime is Friday between 5:00 and 6:00 pm.
- 14.5% of all reported collisions were animal related.

Collision Comparisons from 2015 to 2016

Statistic	2015	2016	% Change
All Roads Within County			
➤ Total Collisions	2409	2178	-9.59
➤ Fatal Collisions	5	5	0
➤ Major Injury Collisions	59	60	+1.69
➤ Minor Injury Collisions	537	498	-7.26
➤ PDO Collisions	1808	1615	-10.67
➤ Collisions per 1,000 population	25.22	22.22	-11.90
➤ Injury Collisions* per 1,000 population	6.29	5.74	-8.74
➤ Collision Injuries*	809	779	-3.71
➤ Collision Injuries* per 1,000 population	8.46	7.95	-6.03
➤ Pedestrian Collisions	16	16	0
➤ Fatal and Major Pedestrian Injuries	8	6	-25.00
➤ Bicycle Collisions	14	9	-35.71
➤ Fatal and Major Cyclist Injuries	3	3	0
➤ Motorcycle Collisions	23	20	-13.04
➤ Fatal and Major Motorcyclist Injuries	8	8	0
➤ Intersection Collisions	1043	1187	+2.89
➤ Animal Collisions	295	316	+7.12
➤ Alcohol Related Collisions	35	34	-2.86%
➤ Commercial Vehicle Collisions	252	197	-21.83
County Owned Roads			
➤ Total Collisions	1541	1412	-8.37
➤ Fatal Collisions	2	1	-50.00
➤ Major Injury Collisions	32	36	+12.50
➤ Minor Injury Collisions	359	329	-8.36
➤ PDO Collisions	1148	1046	-8.87
➤ Injury Collisions* per 1,000 population	4.11	3.73	-9.25

*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, 2016 to December 31, 2016 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 resulted in property damage of CAD \$2,000 or greater (since 2011, and CAD \$1,000 prior to 2011), as well as any collision that resulted in a major or minor injury or fatality.

The information presented in this report is based upon reportable incidents at the time of printing. Due to continuing police investigations, some numbers presented in this report may be subject to revision.

Significance of Collisions Statistics

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 all of the 5 E's of traffic safety: engineering, enforcement, education, evaluation and engagement. Some of the major tasks are:

- 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, pedestrians, bicyclists, motorcyclists, and commercial vehicles;
- Facilitating budget planning;
- Determining collision reduction targets and monitoring our progress towards these targets.

1.2 About Strathcona County

Set in the centre of Alberta's energy and agricultural heartland, Strathcona County is a thriving community of more than 98,000 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.

Strathcona County is a large municipality, covering 1,262 km², with a variety of land uses.

Table 1: Land use by area in Strathcona County

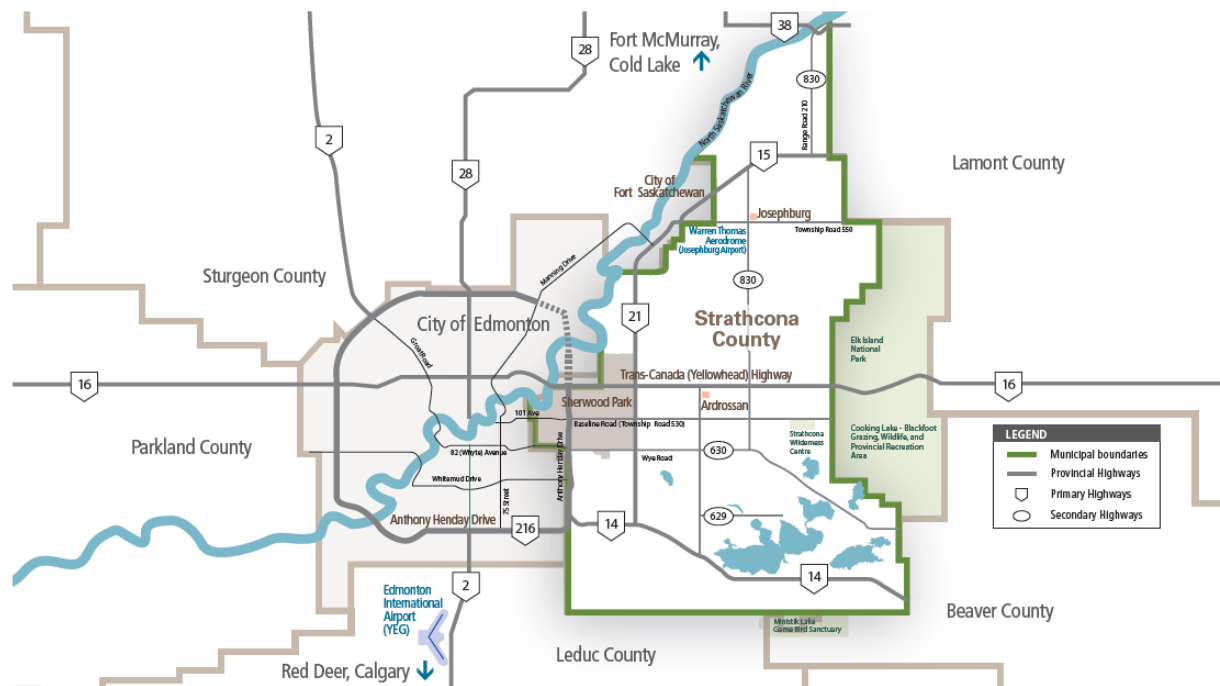
Agricultural	87,502 hectares
Industrial	9,052 hectares
Commercial	2,078 hectares
Residential	18,542 hectares
Urban village*	66 hectares
Park/recreation/natural	3,701 hectares
Other: airports, water bodies, roads, road rights-of-way	5,679 hectares

* New zoning type added for 2016 – includes mix of residential and commercial

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

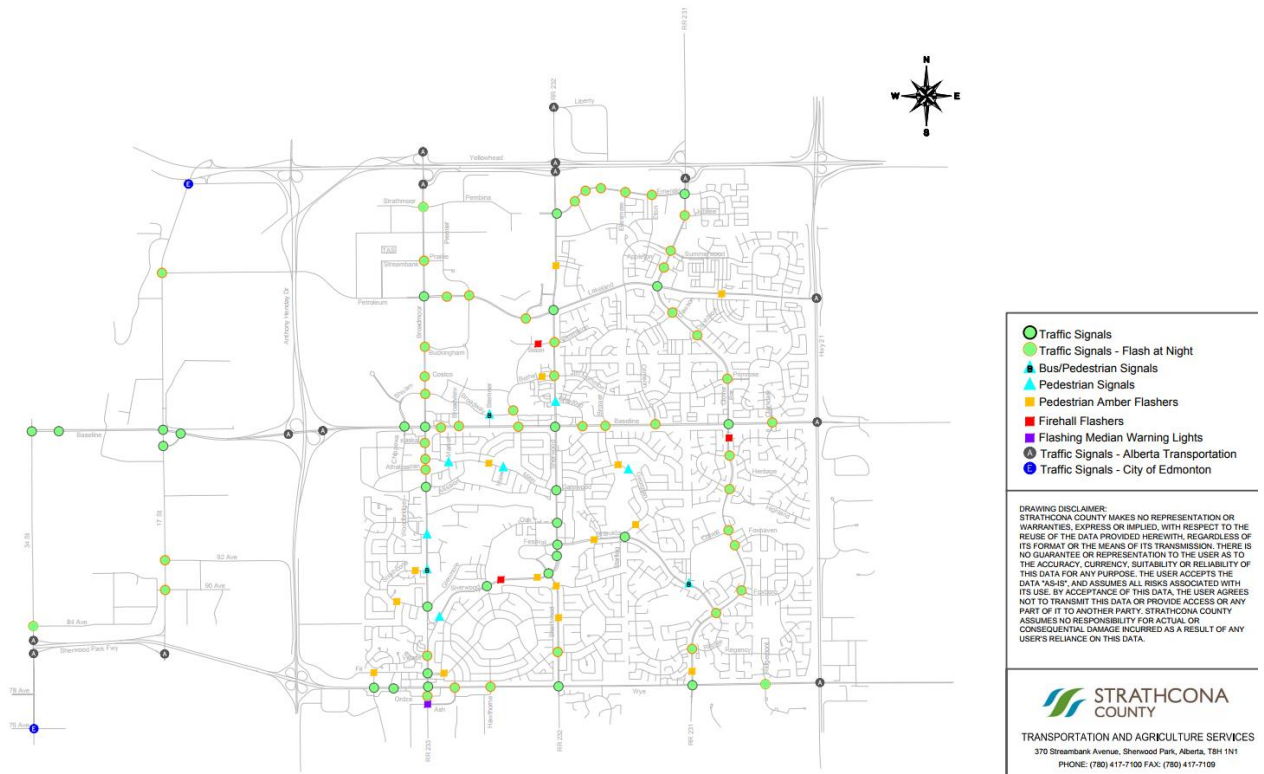
There are 1,943 km of public roadways in Strathcona County, including:

- 232 km of Provincially-maintained highways;
- 403 km of County-maintained urban roads;
- 1,308 km County-maintained rural roads.

1.2.3 Traffic Signals

Strathcona County operates approximately 115 signalized devices. There are also four signals operated by the City of Edmonton on our western border. 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 an 18.8% population increase between 2006 and 2016. The majority of this growth has taken place in Sherwood Park, which has grown by 24% during this timeframe.

Table 2: Strathcona County Population (2006-2016)

Year	Sherwood Park	**Rural Strathcona	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

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

Age

According to the 2016 Canadian Census, the average age in Strathcona County is 39.2 years. This is higher than the Alberta average of 37.8, but lower than the Canadian average of 41.0.

Table 3: Strathcona County Population Breakdown by Age (from 2016 Canadian Census data)

Age Group	Percent of Population
14 and under	19.0
15-19	6.7
20-29	11.3
30-39	12.8
40-64	36.2
65 and older	14.0
Total Population (All Ages)	100.0

Strathcona County has 3% fewer seniors and 3% 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 County Residents vs Alberta and Canada

Main Mode of Commuting	Strathcona County*	Alberta*	Canada*
Car, truck, van- as driver	87.5	77.7	74.0
Car, truck, van- as passenger	4.0	5.2	5.5
Public Transit	4.5	10.0	12.4
Walk	2.0	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, Sherwood Park had 70,517¹ licensed drivers in 2016. No data is available for Strathcona County, but given that this number exceeds the population of Sherwood Park, it likely reflects all or most of the County.

Similarly, Alberta Transportation reports there are 84,667² motorized vehicles for highway use registered in Sherwood Park. This amounts to 1.2 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. Strathcona County utilizes default playground and school zone effective times as established by the province under Alberta's Use of Highway 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 the following times on school days: 8 a.m. to 9:30 a.m.; 11:30 a.m. to 1:30 p.m.; and 3 p.m. to 4:30 p.m.

¹ <https://www.transportation.alberta.ca/Content/docType47/Production/Drivers2017.pdf>

² <https://www.transportation.alberta.ca/Content/docType47/Production/VehReg2017.pdf>

With the exception of school and playground zones (during specified times), all collector and local roads within the County operate at 50 km/h unless otherwise posted.

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 slightly despite significant population growth. Total collision rates and property damage only (PDO) collision rates are down significantly between 2007-2016 (20% and 23% respectively). In 2011, the minimum for collision reporting increased from \$1000 to \$2000, which likely accounts for at least part of this decrease.

In the last 10 years the rate of minor injury collisions has also decreased 15%; however, rates recorded from 2010 through 2014 were significantly lower. Rates of major injury collisions have increased 29% since 2007, and more than doubled since our lowest recorded rates in 2013. Fatal collision rates are very low, and do not lend themselves to comparison.

Table 5: All Collisions by Consequence within County Borders 2007-2016

Year	Fatal	Major*	Minor**	PDO***	Total
2007	7	40	505	1814	2366
2008	9	27	501	2073	2610
2009	5	44	448	1972	2469
2010	3	26	390	1830	2249
2011	8	32	418	1667	2125
2012	7	34	367	1746	2154
2013	5	27	425	1766	2223
2014	5	33	443	1843	2323
2015	5	59	537	1808	2409
2016	5	60	498	1615	2178

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

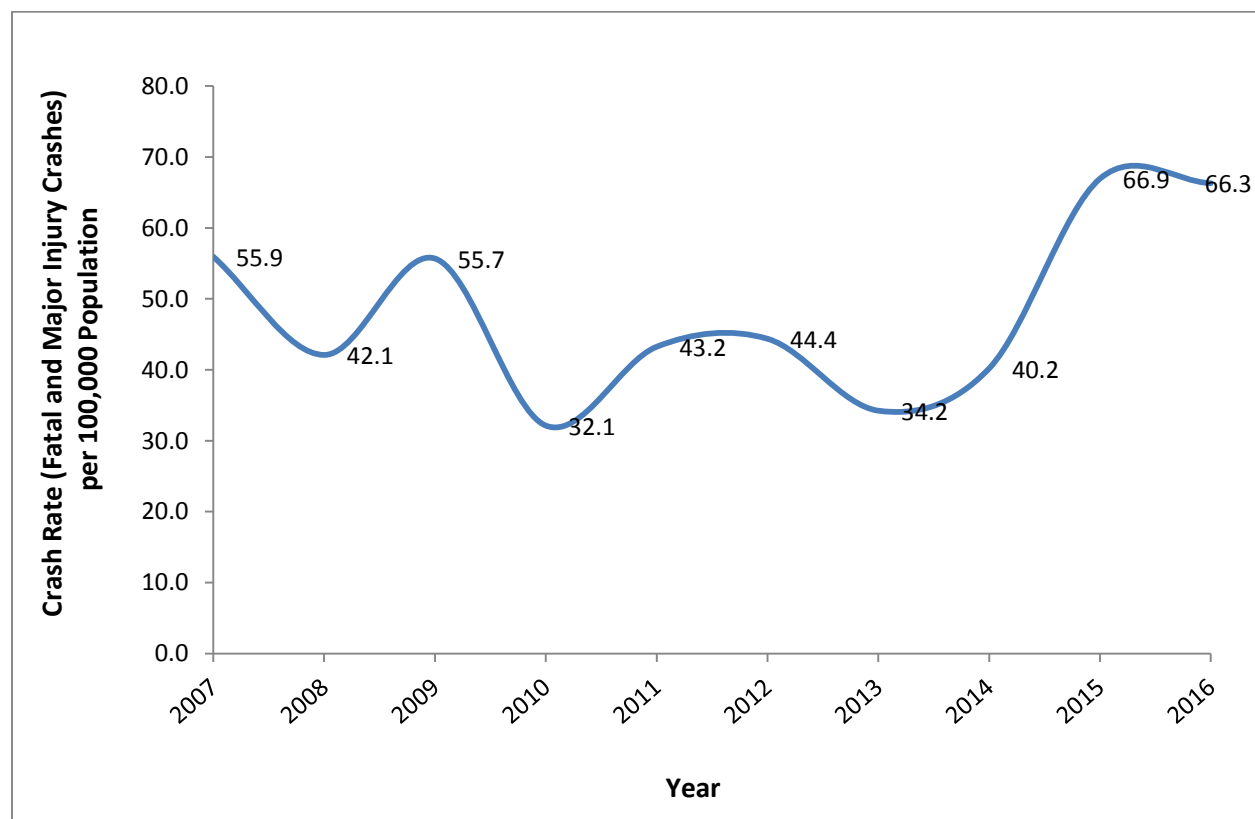
Table 6: Collision Rates per 100,000 Population on All Roads Within the County

Year	Fatal	Major*	Minor**	PDO***	Total
2007	8.33	47.6	601.1	2159.1	2816.1
2008	10.52	31.6	585.8	2424.0	3051.9
2009	5.68	50.0	509.1	2241.0	2805.7
2010	3.32	28.8	432.2	2027.8	2492.1
2011	8.65	34.6	451.9	1802.4	2297.5
2012	7.58	36.8	397.2	1889.5	2331.1
2013	5.35	28.9	454.7	1889.4	2378.4
2014	5.29	34.9	468.6	1948.5	2457.4
2015	5.23	61.7	561.7	1891.3	2522.0
2016	5.10	61.2	507.9	1647.2	2221.5

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

Figure 3 combines fatal and injury collision statistics in order to better assess the incidence of our most serious collisions.

Figure 3: Crash Rates for Fatal/Major Injuries Combined–All Roads Within County



2.2 County Roads Only (Excluding Provincial Hwys)

Similar collision trends can be seen when Provincial highways are excluded from the analysis.

Table 7: All Collisions by Consequence on County Roads (Excluding Provincial Hwys)

Year	Fatal	Major*	Minor**	PDO***	Total
2007	4	20	365	1187	1576
2008	4	12	346	1320	1682
2009	2	18	314	1336	1670
2010	0	13	260	1260	1533
2011	1	10	267	1096	1374
2012	1	14	228	1115	1358
2013	3	9	262	1115	1389
2014	1	16	266	1189	1472
2015	2	32	359	1148	1541
2016	1	36	329	1046	1412

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

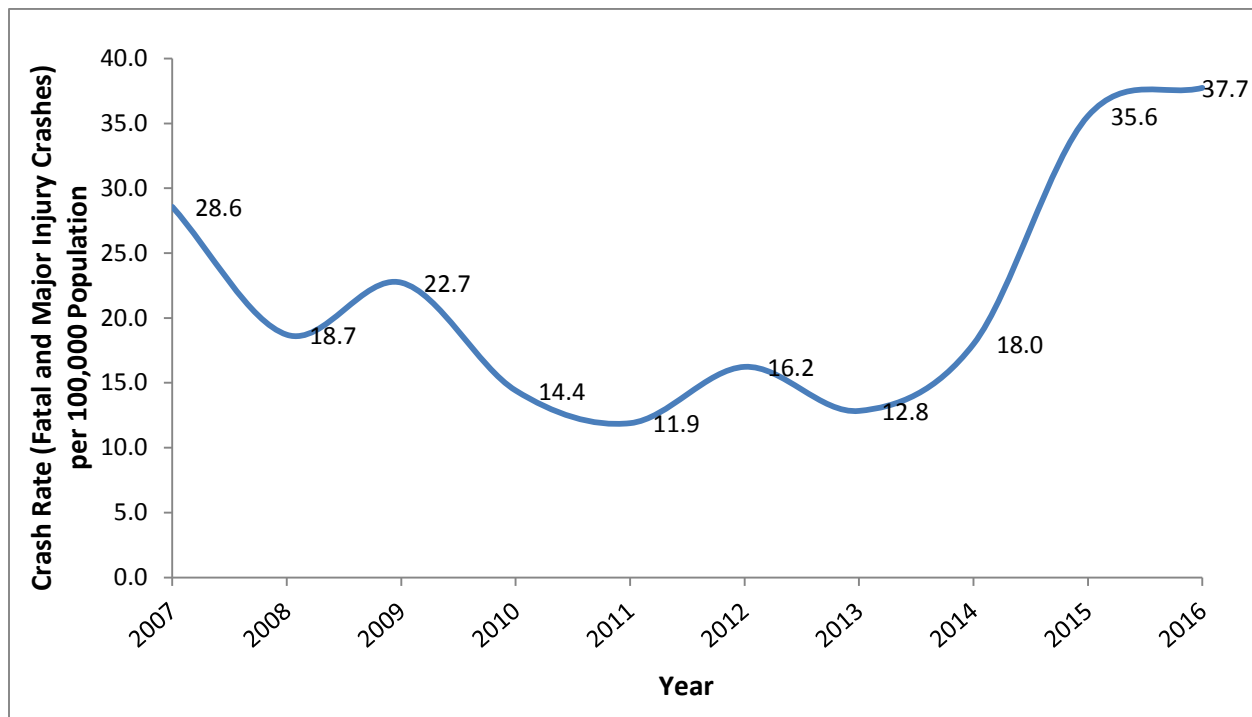
Despite decreasing collision rates for minor injury, PDO and total collisions, the major injury collision rate on County owned roads has increased by 55% between 2007 and 2016. Rates have more than tripled from lows recorded in 2011 and 2013.

Table 8: Collision Rates per 100,000 Population on County Roads Only

Year	Fatal	Major*	Minor**	PDO***	Total
2007	4.8	23.8	434.4	1412.8	1875.8
2008	4.7	14.0	404.6	1543.5	1966.8
2009	2.3	20.5	356.8	1518.2	1897.8
2010	0.0	14.4	288.1	1396.2	1698.7
2011	1.1	10.8	288.7	1185.0	1485.6
2012	1.1	15.2	246.7	1206.7	1469.6
2013	3.2	9.6	280.3	1192.9	1486.1
2014	1.1	16.9	281.4	1257.8	1557.1
2015	2.1	33.5	375.5	1200.9	1612.0
2016	1.0	36.7	335.6	1066.9	1440.2

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

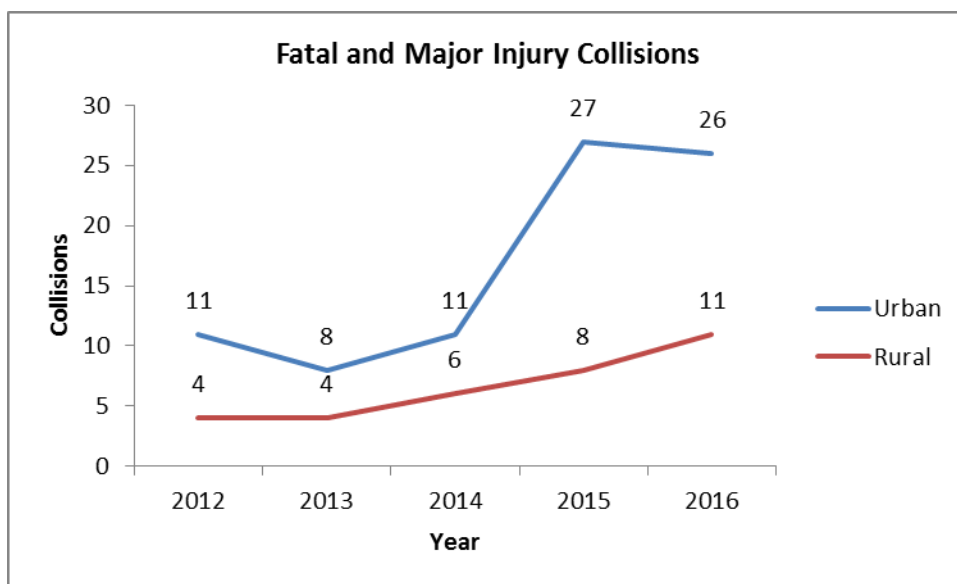
Figure 4: Crash Rates for Fatal/Major Injuries Combined–County Owned Roads



2.3 County Owned Rural vs Urban Collision Trends

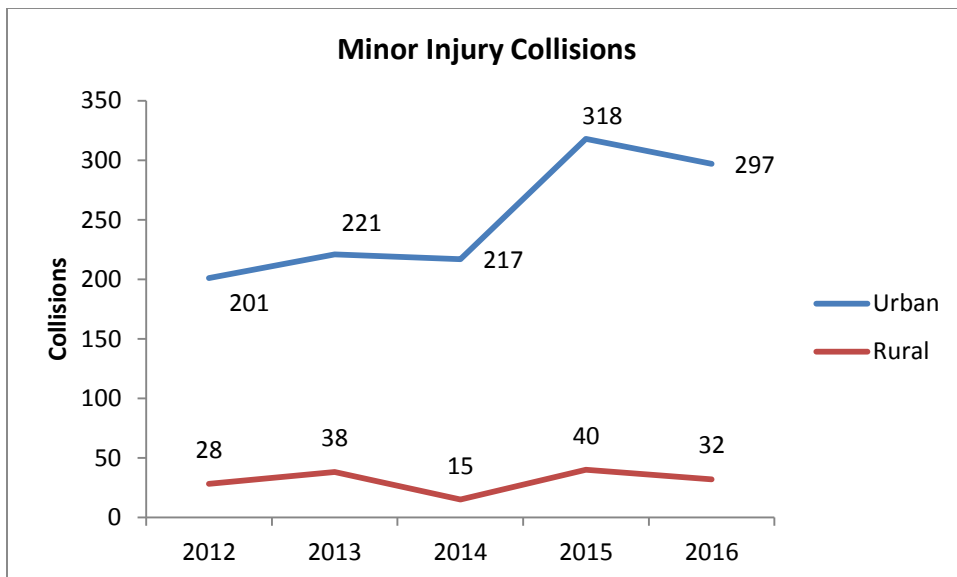
Looking at the data from 2012-2016 from an urban vs rural perspective, we can see that the collision trends have not been the same across the County. There has been a large increase in fatal and major injury collisions in both the urban and rural area, although the trend has been stronger in the urban area.

Figure 5: Fatal/Major Collisions Urban vs Rural County Owned Roads (2012-2016)



Minor injury collisions have remained fairly constant over the last five years in the rural areas, while there has been an increase of about 30% in the urban area.

Figure 6: Minor Injury Collisions Urban vs Rural County Owned Roads (2012-2016)



Property damage only collisions have dropped substantially in the urban area, while at the same time increasing in rural areas.

Figure 7: PDO Collisions Urban Roads (2012-2016)

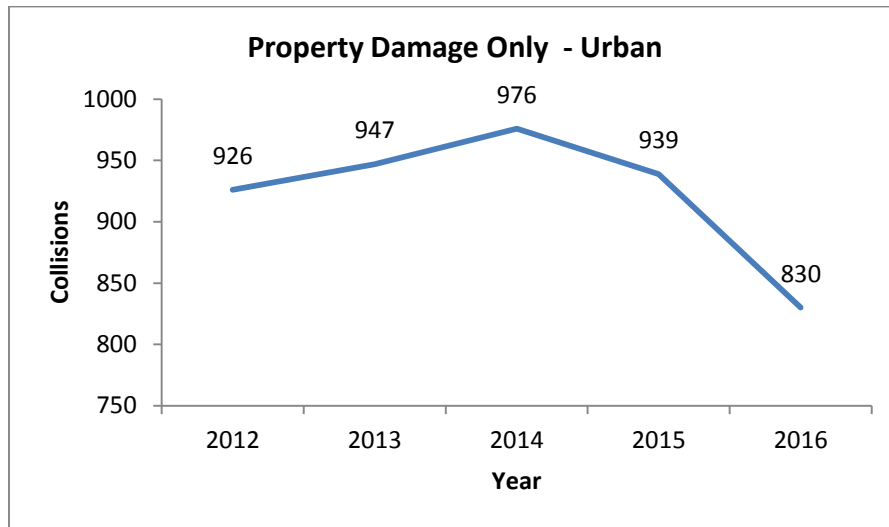
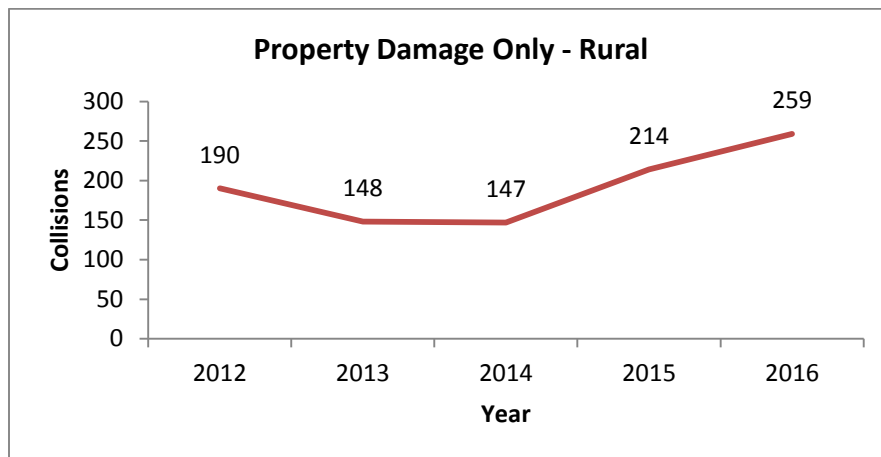


Figure 8: PDO Collisions Rural County Owned Roads (2012-2016)



2.4 Provincial Highways Collision Trends

Historically, the majority of fatal crashes in the County take place on provincial highways. This is not surprising given these are the highest speed roads in the County. This was also the case in 2016 with four of five fatal crashes happening on highways.

Table 9: Provincial Highways Collision Trends

Year	Fatal	Major Injury	Minor Injury	PDO	Total
2014	4	17	177	653	851
2015	3	26	179	662	870
2016	4	24	167	569	764

A significant number of major injury crashes also tend to take place on the highways. Similar to the trend on County owned roads, the number of major injury collisions on the highways increased from 2014-2016. However, the rate of increase was not as high, and the proportion of major injury crashes on provincial highways fell 12% between 2014 and 2016.

Table 10: Provincial Highway Collisions as a Percentage of Total County Collisions

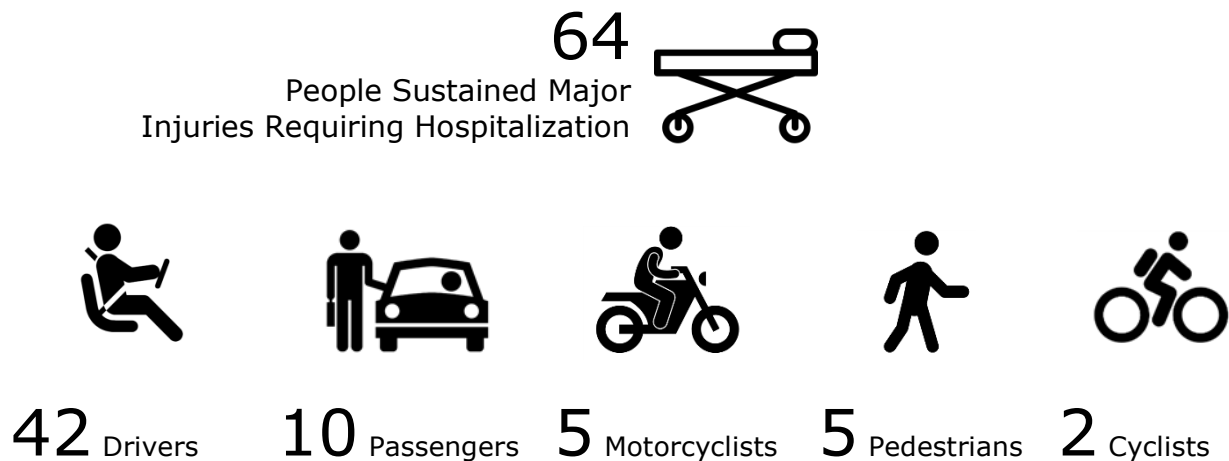
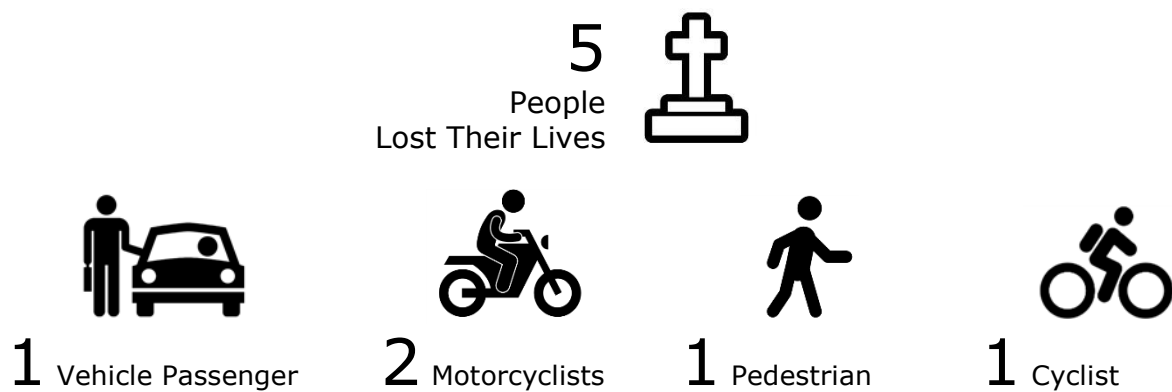
Year	Fatal	Major Injury	Minor Injury	PDO	Total
2014	80%	52%	40%	35%	37%
2015	60%	44%	33%	37%	36%
2016	80%	40%	34%	35%	35%

Section 3: 2016 Collision Statistics and Trends

Section 3 provides a deeper analysis of 2016 collision statistics and trends.

3.1 Overview

As a result of traffic collisions in Strathcona County in 2016:



3.2 Cost of Collisions

The 2017 Collision Cost Study³ quantifies the costs that are associated with motor vehicle collisions within the Capital Region using local data. It is estimated that collisions in 2016 in Strathcona County cost local taxpayers just over \$56 million. This estimate considers only direct costs, not including “human” costs, such as pain, suffering and grief.

Table 11: Direct Cost of Collisions in Strathcona County 2016

Level of Injury	Estimated Cost per Collision	Number of Victims	Total Cost of Collisions
Fatality	\$204,848	5	\$1,024,240
Major Injury	\$122,103	64	\$7,814,592
Minor Injury	\$33,979	709	\$24,091,111
Property Damage Only	\$14,332	1615	\$23,146,180
Total Direct Cost of Collisions in Strathcona County*			\$56,076,123

*Direct costs include costs for property damage, emergency response, health care services, travel delay, legal costs and short-term productivity loss. They do not include any costs for discounted future earnings, pain, suffering or grief.

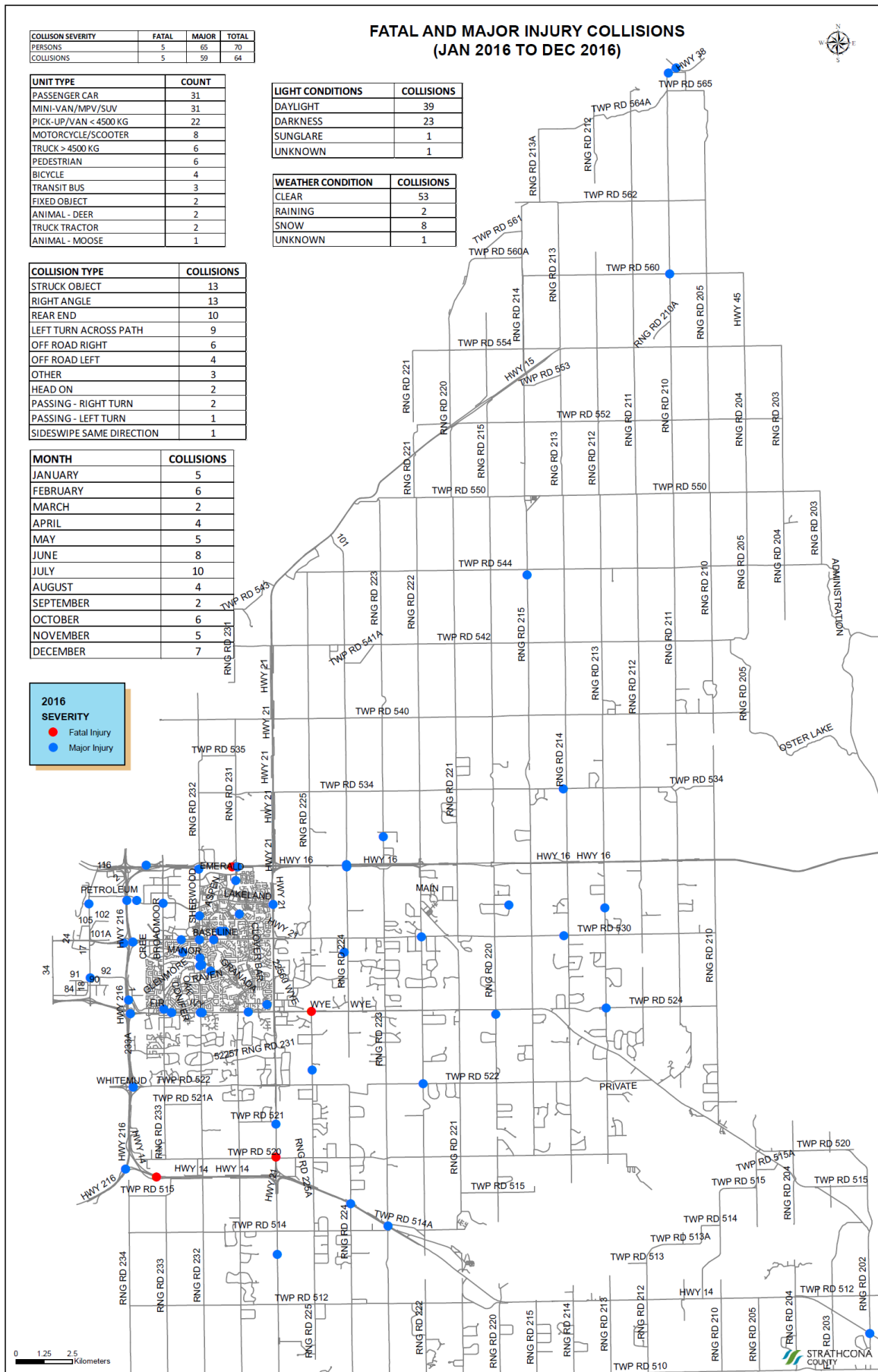
3.3 Major and Fatal Collisions

In keeping with Strathcona County’s Traffic Safety Strategic Plan (TSSP), our goal is to specifically reduce the kind of collisions that cause serious injury and death.

The following two maps illustrate the location of fatal and major injury crashes in Strathcona County as a whole, and specifically in the Urban Service Area.

Detailed analysis of these crashes is included throughout the report, as a deeper understanding of the events and conditions that resulted in these failures of our Safe System is important to help determine the most appropriate engineering, education, enforcement or engagement related countermeasure to reduce the probability of another similar crash.

³ Collision Cost Study Update, 2017, Paul de Leur, available at <http://drivetolive.ca/uncategorized/updated-collision-cost-study-underway/>



3.4 Collision Causes

Followed Too Close was the most common overall cause of collisions in 2016.

For fatal and injury (including major and minor injury) the top eight causes of collision were:

1. Followed Too Close/Rear-Ended
2. Left Turn Across Path
3. Lost Control
4. Failed to Proceed in Safety
5. Disobey Traffic Signal
6. Ran-Off-Road
7. Animal Accident
8. Failed to Stop

For collisions that involved only property damage, the top eight causes of collision were:

1. Followed Too Close/Rear-Ended
2. Animal Accident
3. Lost Control
4. Hit and Run
5. Ran-Off-Road
6. Side Swiped
7. Back Unsafely
8. Left Turn Across Path

Side Impact (T-Bone, left-turn-across path, right angle) collisions are the most dangerous kind of collision for vehicle occupants, as serious 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 the kind of collision that results in a 90 degree side impact than those recorded in PDO collisions.

3.5 Temporal Analysis

Month

The highest number of fatal and injury collisions took place in June 2016. Generally, the most serious collisions occurred from May to July as well as in December and January. PDO collisions were most common in January 2016. Generally, PDO collisions were high in the winter months and lowest in the summer.

Figure 9: Fatal and Injury Collisions by Month 2016

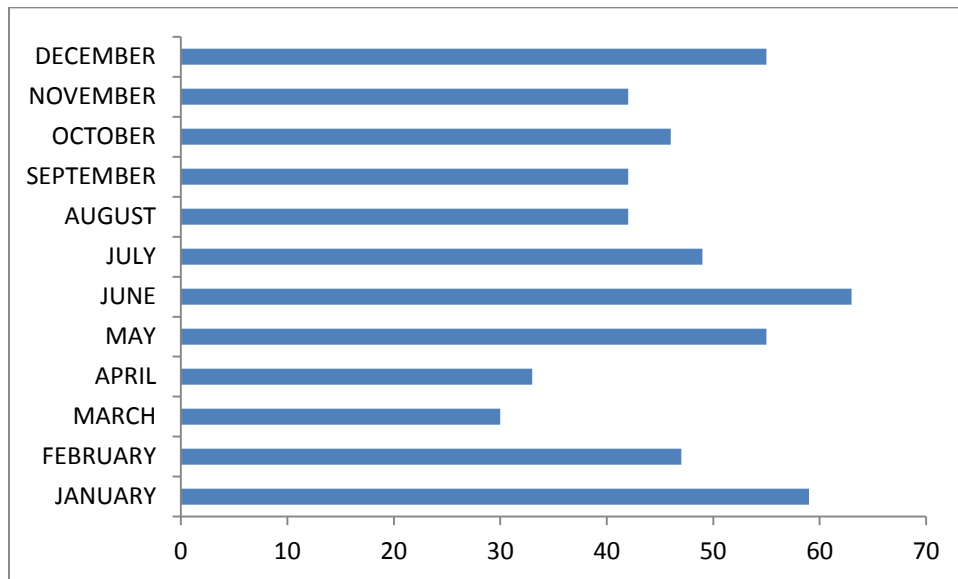
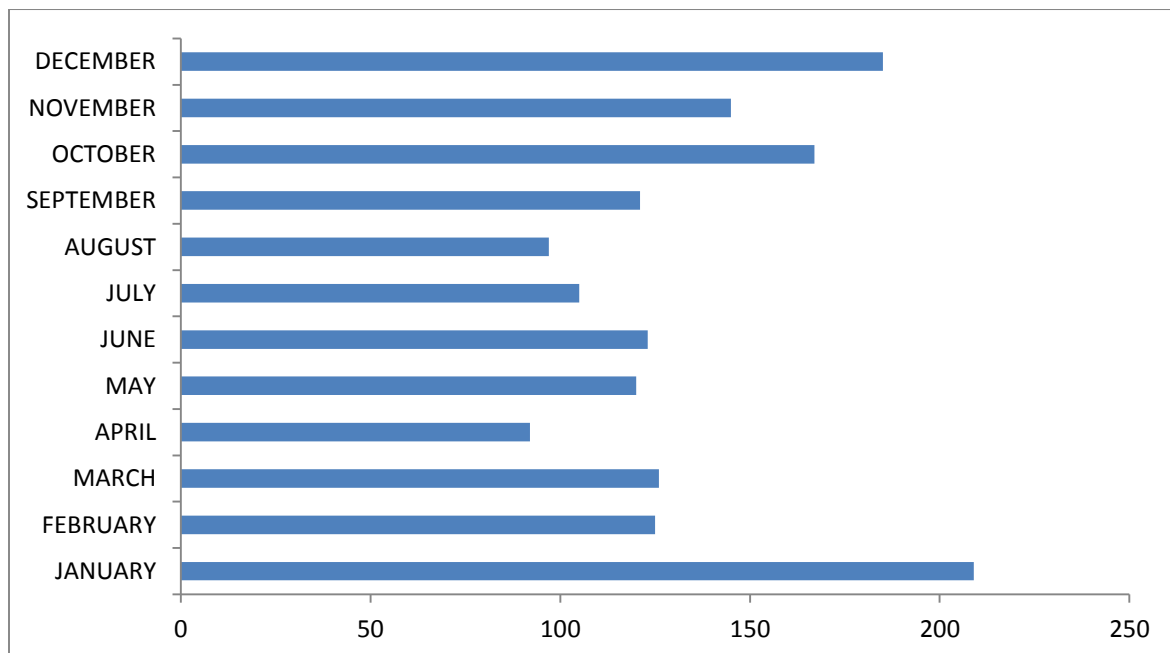


Figure 10: Property Damage Only (PDO) Collisions by Month 2016



Day of the Week

Friday was the most common day of the week for all kinds of collisions in 2016.

Figure 11: Fatal and Injury collisions by Day of the Week 2016

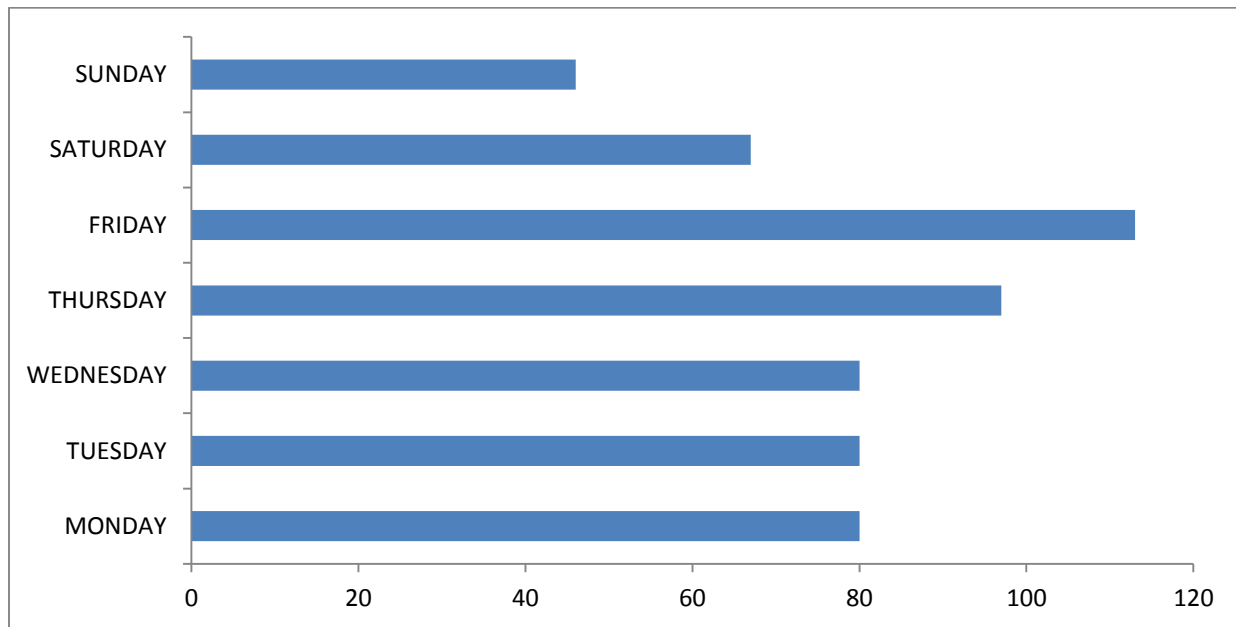
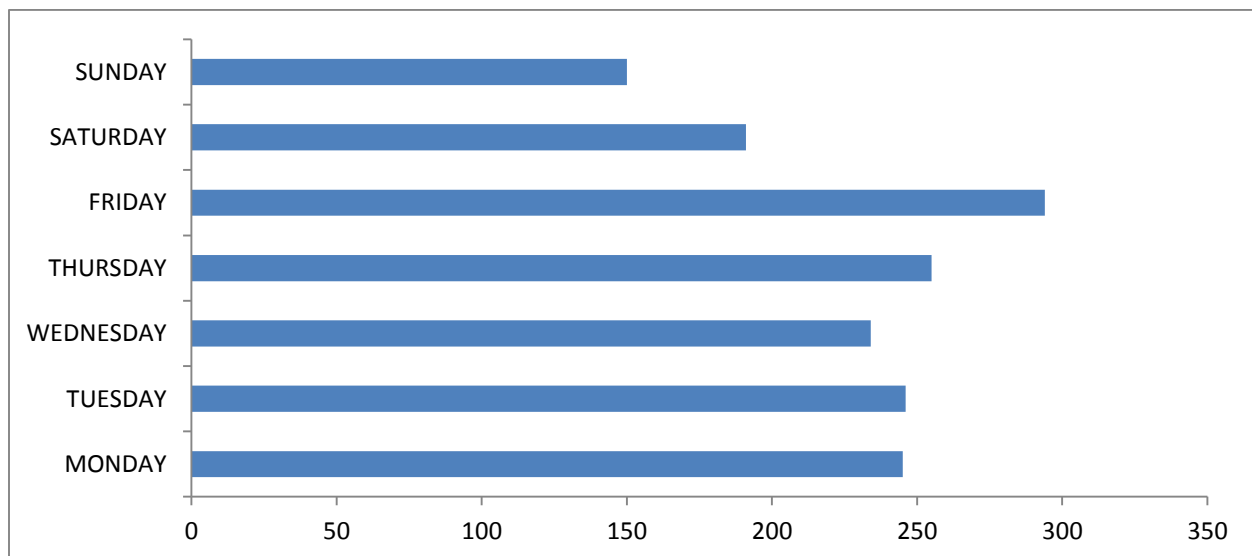


Figure 12: Property Damage Only (PDO) collisions by Day of the Week 2016



Time of Day

On weekdays, all types of crashes were most likely between 5:00 and 6:00 pm. Generally, weekday crashes are highest in the afternoon peak time, with a less marked increase during the morning peak hours.

Figure 13: Fatal and Injury Collisions by Time of Day 2016- Weekdays

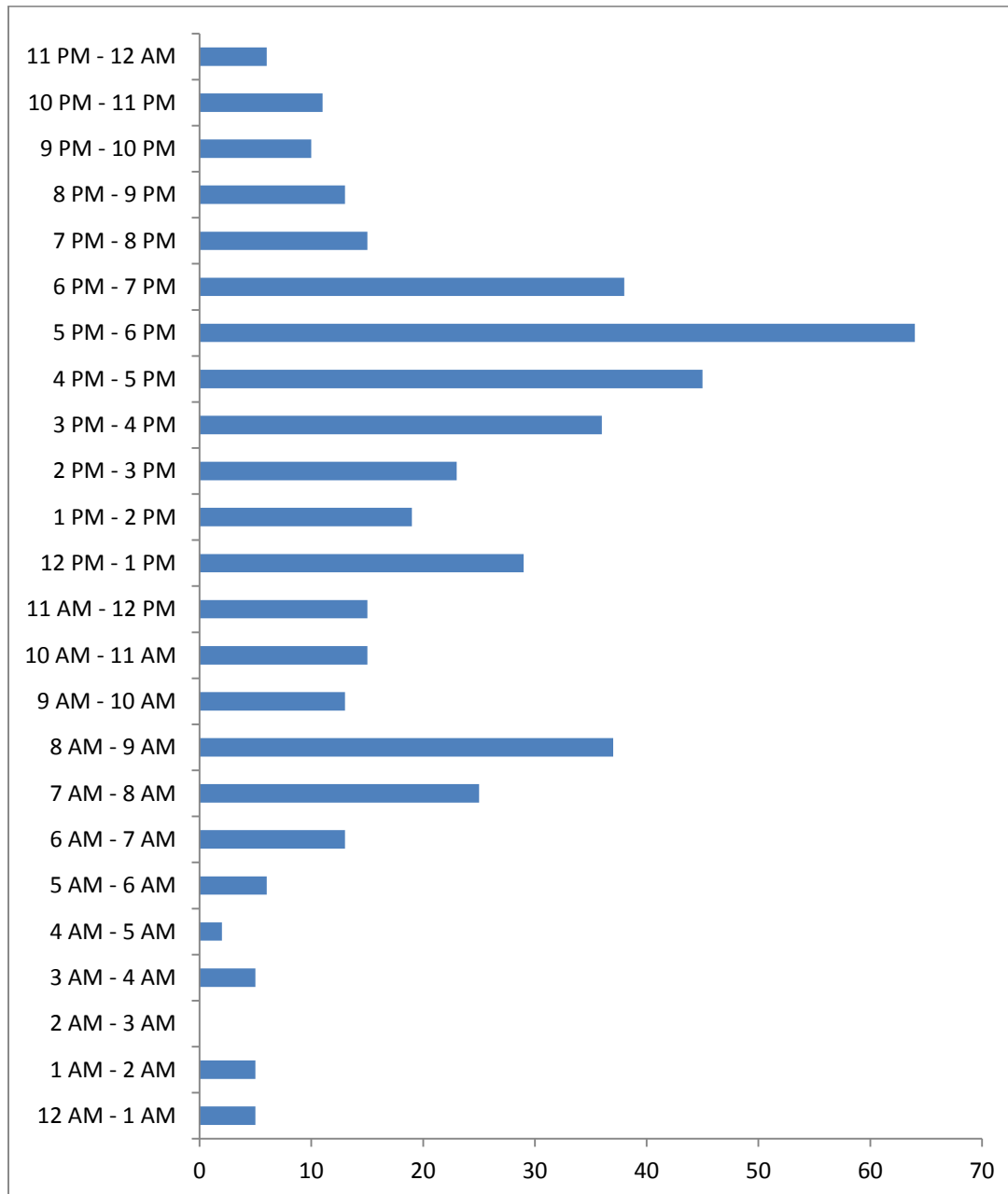
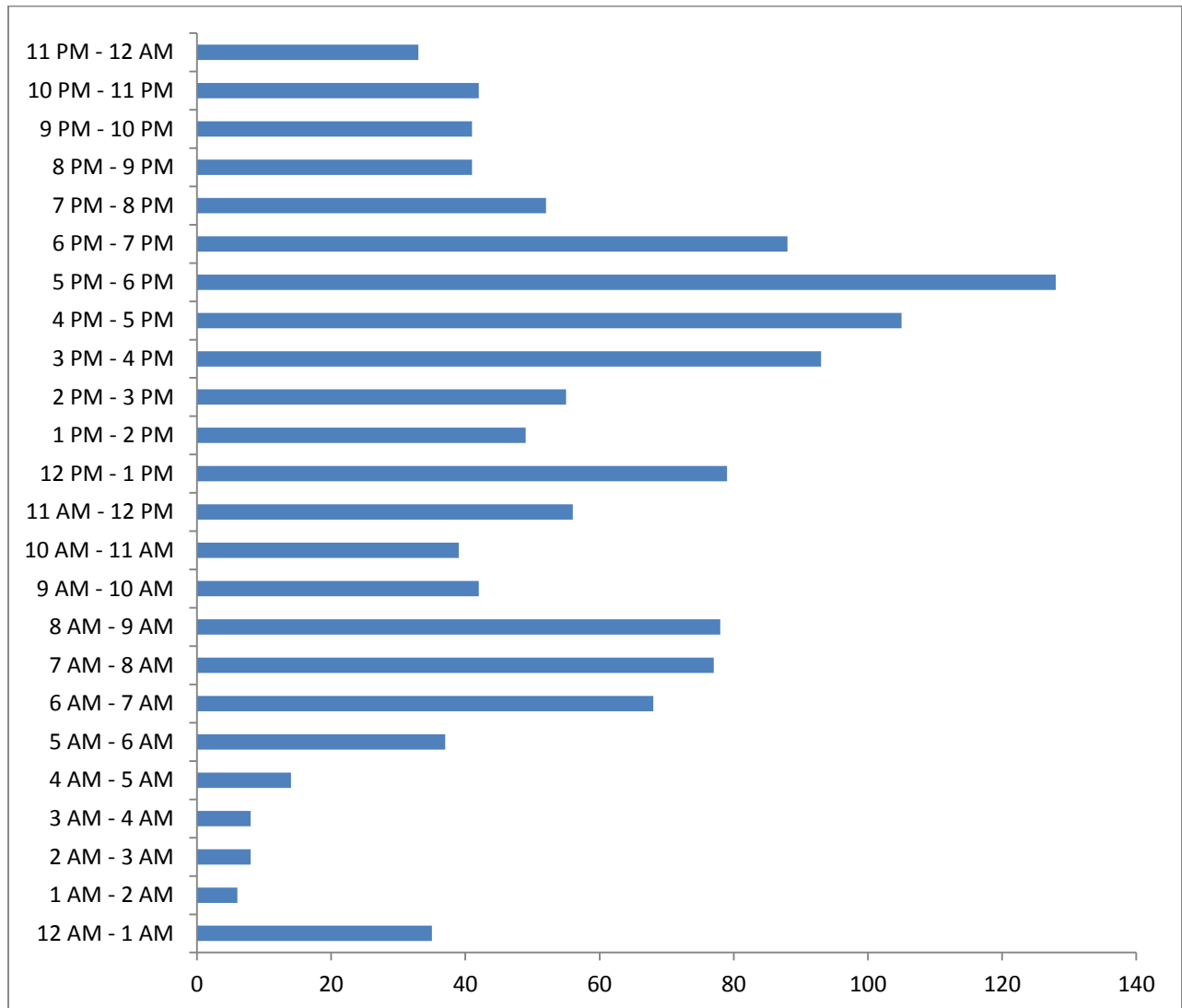


Figure 14: Property Damage Only Collisions by Time of Day 2016- Weekdays



On weekends, collisions generally peak in the early afternoon. This is most marked with fatal and injury collisions, which are most likely to happen between 2:00 and 3:00 pm.

Figure 15: Fatal and Injury Collisions by Time of Day 2016- Weekends

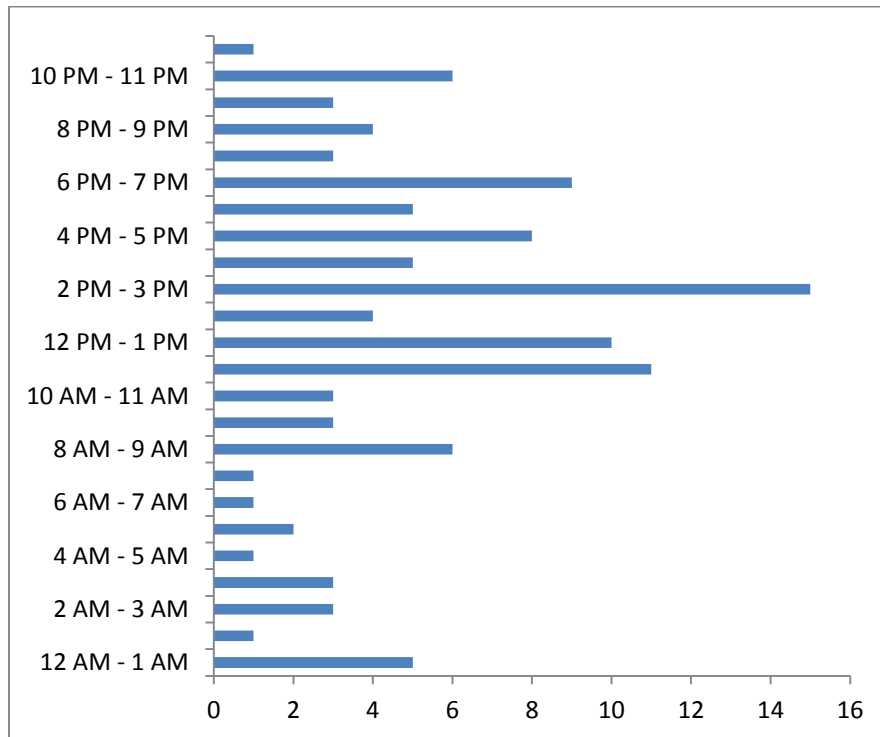
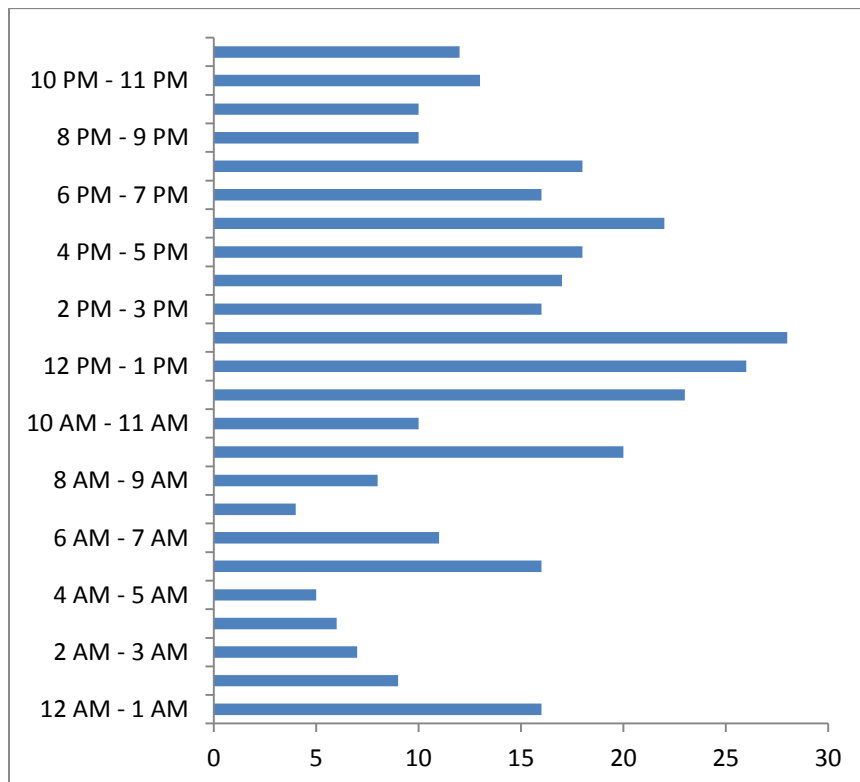


Figure 16: Property Damage Only Collisions by Time of Day 2016- Weekends



3.6 Intersection-Related Collisions

In 2016, almost half of all collisions in Strathcona County were intersection-related. About 2/3 of injury collisions happen at intersections. 2016 saw an increasing trend towards intersection-related collisions over 2015.

Table 12: Intersection-Related Collisions as a Percentage of Total Collisions

	2015	2016	% change
All Collisions	47.89	49.27	2.89
PDO	41.49	43.42	4.66
Minor Injury	67.07	67.04	-0.04
Major Injury	61.67	66.10	7.19
Fatal	40.00	60.00	50.00

The top three intersections for collision frequency are the highest volume intersections in Sherwood Park. Five of the top collision frequency locations are on Sherwood Drive, and five are on Baseline Road.

Table 13: Top 10 Intersections for Collision Frequency 2016

RANK	PRIMARY STREET	INTERSECTING STREET	FATAL	MAJOR	MINOR	PDO	TOTAL
1	BASELINE RD	BROADMOOR BLVD	0	0	21	20	41
2	SHERWOOD DR	BROADMOOR BLVD	0	0	10	25	35
3	BASELINE RD	SHERWOOD DR	0	1	8	18	27
4	WYE RD	BRENTWOOD BLVD	0	3	9	9	21
5	BASELINE RD	CLOVER BAR RD	0	0	5	17	22
6	LAKELAND DR	SHERWOOD DR	0	0	5	18	23
7	GLENBROOK BLVD	BASELINE RD	1	1	5	12	16
8	BRENTWOOD BLVD	SHERWOOD DR	0	0	8	11	19
9	BASELINE RD	SHIVAM RD/CHIPPEWA RD	0	0	4	12	16
10	SHERWOOD DR	MAIN/GATEWOOD	0	1	3	11	15

The top 3 intersections for frequency of rear-end collisions are the highest volume intersections in Sherwood Park. Five of the top collision frequency locations are on Sherwood Drive, and four are on Baseline Road.

Table 14: Top 10 Intersections for Rear End Collisions 2016

RANK	PRIMARY STREET	INTERSECTING STREET	REAR END
1	BASELINE RD	BROADMOOR BLVD	32
2	SHERWOOD DR	BROADMOOR BLVD	19
3	BASELINE RD	SHERWOOD DR	17
4	WYE RD	BRENTWOOD BLVD	14
5	LAKELAND DR	SHERWOOD DR	13
6	BASELINE RD	CLOVER BAR RD	13
7	BRENTWOOD BLVD	SHERWOOD DR	12
8	BASELINE RD	SHIVAM RD/CHIPPEWA RD	12
9	SHERWOOD DR	MAIN/GATEWOOD	10
10	HWY 21	WYE RD	8

The top three intersections for side impact collisions are lower volume intersections.

Table 15: Top 10 Intersections for Left-Turn Across Path (LTXP)/Right Angle Collisions 2016

NUMBER	PRIMARY STREET	INTERSECTING STREET	LTXP + RIGHT ANGLE
1	GLENBROOK BLVD	BASELINE RD	10
2	SHERWOOD DR	FIR ST	10
3	WYE RD	ASH ST	9
4	WYE RD	SHERWOOD DR	8
5	LAKELAND DR	SHERWOOD DR	6
6	HWY 21	WYE RD	6
7	BASELINE RD	SHERWOOD DR	5
8	WYE RD	BRENTWOOD BLVD	5
9	BASELINE RD	CLOVER BAR RD	4
10	BASELINE RD	17 ST	4

Since the number of pedestrian and bicycle collisions are relatively low, collisions are included in this analysis for 10 years (2007-2016). Sherwood Drive/Granada Boulevard intersection has almost double the incidence of any other location.

The following two tables are based on 10 year data in order to identify trends.

Four of the top 12 intersections for fatal/major injury collision are located on Wye Road, four are on Sherwood Drive and three are on Highway 21.

Table 16: Top 12 intersections for Frequency of Fatal/Major Injury Collisions (2007-2016)

RANK	PRIMARY ST	INTERSECTING STREET	FATAL	MAJOR	TOTAL
1	WYE RD	BRENTWOOD BLVD	0	6	6
2	BASELINE RD	17 ST	0	6	6
3	WYE RD	HWY 21	1	5	6
4	SHERWOOD DR	MAIN/GATEWOOD BLVD	0	5	5
5	HWY 16	RNG RD 224	0	4	4
6	WYE RD	ASH ST	0	4	4
7	SHERWOOD DR	FIR ST	0	4	4
8	WYE RD	SHERWOOD DR	0	4	4
9	LAKELAND DR	SHERWOOD DR	0	4	4
10	LAKELAND DR	BROADMOOR BLVD	0	4	4
11	RNG RD 542	HWY 21	0	4	4
12	TWP RD 540	HWY 21	0	4	4

Table 17: Top 10 Intersections for Pedestrian and Bike Collisions (2007-2016)

PRIMARY ST	INTERSECTING ST	FATAL	MAJOR	MINOR	PDO	TOTAL
SHERWOOD DR	GRANADA BLVD	0	0	12	0	12
BROADMOOR BLVD	BROADWAY BLVD	0	0	6	1	7
SHERWOOD DR	MAIN/GATEWOOD	0	0	4	2	6
CLOVER BAR RD	DAVIDSON DR	0	1	4	1	6
CLOVER BAR RD	GRANADA BLVD	0	1	4	0	5
BROADMOOR BLVD	SIOUX RD	0	3	2	0	5
BASELINE RD	CLOVER BAR RD	0	1	2	1	4
BASELINE RD	SHERWOOD DR	0	1	3	0	4
GRANADA BLVD	GEORGIAN WAY	0	1	2	0	3
SHERWOOD DR	BETHEL DR	0	0	3	0	3
SHERWOOD DR	OAK ST	0	1	1	1	3
BROADMOOR BLVD	BEAUVISTA DR	0	1	0	1	2

3.7 Neighbourhood Collisions

Approximately 12% of major injury collisions in 2016 took place on residential roads. No fatal collisions occurred in residential areas in the County.

Table 18: Residential Collisions as a Percentage of Major Injury and Fatal Collisions

	MAJOR INJURY CRASHES		FATAL CRASHES	
	2015	2016	2015	2016
RESIDENTIAL	5.08%	11.66%	0%	0%
ARTERIAL	94.92%	88.34%	100%	100%

Table 19: Major Injury and Fatal Collisions 2015/2016 by location

	2015		2016	
	FATAL	MAJOR	FATAL	MAJOR
URBAN RESIDENTIAL	0	2	0	5
RURAL RESIDENTIAL	0	1	0	2
ARTERIAL	3	31	1	32
HIGHWAYS	2	25	4	21

3.8 Animal Collisions

In 2016, 14.5% of all reported collisions were animal related. Most animal collisions are not serious for vehicle occupants, with 93% of those reported causing only property damage. Overall, there was a 7.16% increase in the number of animal collisions from 2015 to 2016.

Table 20: 2015/2016 Animal Collisions in Strathcona County

SEVERITY	2015	2016	% CHANGE
FATAL INJURY	0	0	N/A
MAJOR INJURY	0	3	N/A
MINOR INJURY	17	19	11.76%
PDO	278	294	5.76%
TOTAL	295	316	7.12%

3.9 Demographics

Individuals aged 19-34 were the most likely to be injured in a motor vehicle collision in 2016. All fatalities were male; none were under 25 years of age.

Table 21: Fatalities and Injuries as a Result of 2016 Collisions by Age

AGE GROUP	FATAL	MAJOR	MINOR	TOTAL
0-5	0	0	15	15
6-11	0	2	24	26
12-15	0	2	17	19
16-18	0	2	41	43
19-24	0	14	122	136
25-34	3	12	143	158
35-44	0	8	113	121
45-54	0	5	112	117
55-64	1	10	61	72
65-74	1	6	38	45
75+	0	4	13	17
UNKNOWN	0	0	9	9

Of the six individuals sustaining major injuries who were 18 and under, four were motor vehicle occupants and two were pedestrians.

Table 22: Fatalities and Injuries as a Result of 2016 Collisions by Gender

GENDER	FATAL	MAJOR	MINOR	TOTAL
FEMALE	0	32	400	432
MALE	5	33	308	346

3.10 Vulnerable Road User Collisions

3.10.1 Pedestrian Collisions

There were a total of 16 pedestrian collisions in Strathcona County in 2016. One of these resulted in a fatality, and five pedestrians sustained major injuries.

Table 23: Pedestrian Collisions 2015/2016 by Severity

SEVERITY	2015	2016	% CHANGE
FATAL	0	1	N/A
MAJOR	8	5	-37.50%
MINOR	7	7	0.00%
PDO	1	3	200.00%
TOTAL	16	16	0.00%

Ten pedestrian collisions took place on the County's arterial roads, and two happened in a residential area.

Table 24: Location of Pedestrian Collisions 2016

LOCATION	ARTERIAL	HIGHWAY	PARKING LOT	RESIDENTIAL
FATAL	0	1	0	0
MAJOR	1	2	1	1
MINOR	7	0	0	0
PDO	2	0	0	1
TOTAL	10	3	1	2

87.5% of pedestrians involved in collisions were male. No pedestrians 10 and under were involved in a collision. Three pedestrians were seniors.

Table 25: Fatalities and Injuries as a Result of 2016 Pedestrian Collisions by Age and Gender

AGE	GENDER	SEVERITY
11	M	Major
13	M	Minor
16	M	Major
17	M	Minor
27	M	Minor
28	M	Fatal
33	M	Minor
34	M	Minor
40	F	Minor
54	M	Minor
65	M	Major
78	M	Major
89	F	Major

Table 26: Causes of Pedestrian Collision 2016

CAUSE TYPE	FATAL	MAJOR	MINOR	PDO	TOTAL
BACK UNSAFELY	0	0	0	1	1
DISOBEY TRAFFIC SIGNAL	0	0	1	0	1
FAILED TO PROCEED IN SAFETY	0	1	3	0	4
FAILED TO YIELD	0	2	3	0	5
HIT AND RUN	1	0	0	0	1
OTHER	0	2	0	2	4

3.10.2 Bicycle Collisions

There were a total of nine bicycle collisions in Strathcona County in 2016. One of these resulted in a fatality, and two involved major injuries.

Table 27: Bicycle Collisions 2015/2016 by Severity

SEVERITY	2015	2016	% CHANGE
FATAL	0	1	N/A
MAJOR	3	2	-33.33%
MINOR	9	5	-44.44%
PDO	2	1	-50.00%
TOTAL	14	9	-35.71%

Five bicycle collisions took place on the County's arterial roads, and one happened in a residential area. All cyclists involved in collisions were male. One cyclist was 14, and all others were adult. Two cyclists were seniors.

Table 28: Location of Bicycle Collisions 2016

LOCATION	ARTERIAL	HIGHWAY	RESIDENTIAL
FATAL	0	1	0
MAJOR	1	0	0
MINOR	3	2	1
PDO	1	0	0
TOTAL	5	3	1

Table 29: Causes of Bicycle Collisions 2016

CAUSE TYPE	FATAL	MAJOR	MINOR	PDO	TOTAL
BACK UNSAFELY	0	0	1	0	1
DISOBEY TRAFFIC SIGNAL	0	1	0	0	1
FAILED TO PROCEED IN SAFETY	0	0	1	0	1
FAILED TO YIELD	1	0	1	0	2
HIT AND RUN	0	1	0	0	1
LEFT TURN ACROSS PATH	0	0	1	0	1
LOST CONTROL	0	0	1	0	1
SIDESWIPE	0	0	0	1	1

Table 30: Fatalities and Injuries as a Result of 2016 Bicycle Collisions by Age and Gender

AGE	GENDER	SEVERITY
14	M	Minor
23	M	Minor
27	M	Major
27	M	Minor
36	M	Minor
58	M	Minor
61	M	Fatal
67	M	Minor
73	M	Major

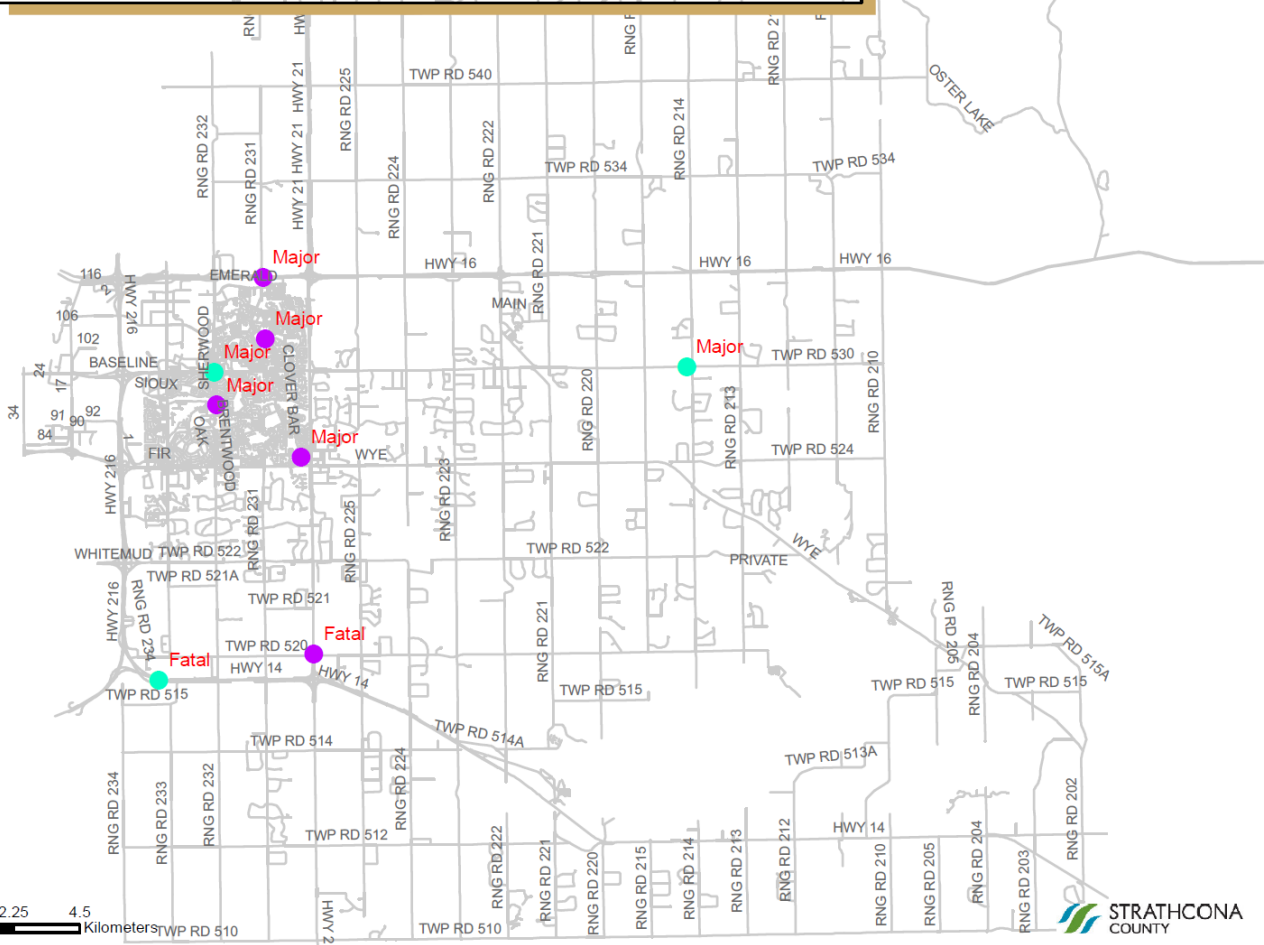
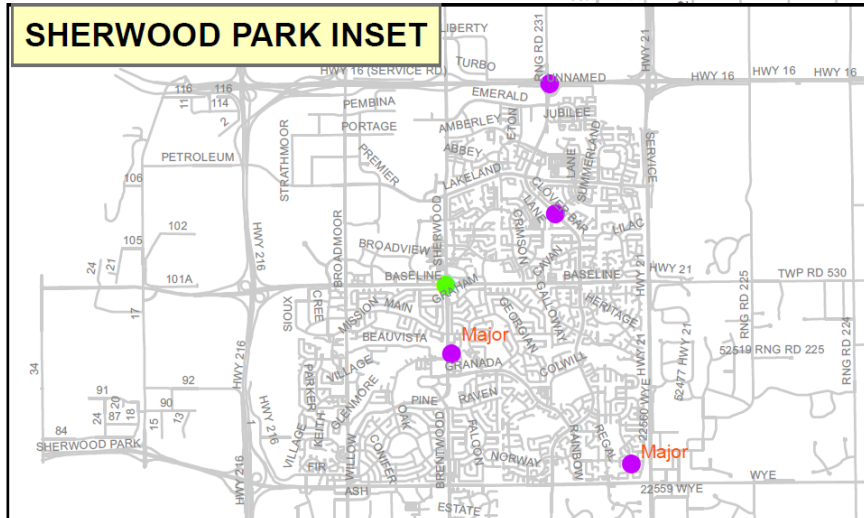
The following map illustrates the locations of all fatal and major injury pedestrian and bicycle collisions in Strathcona County.

FATAL AND MAJOR INJURY COLLISIONS PEDESTRIAN AND BICYCLE (JAN 2016 TO DEC 2016)



BIKE_PED
● BICYCLIST
● PEDESTRIAN

SHERWOOD PARK INSET



3.10.3 Motorcyclists

There were a total of 20 motorcycle collisions in Strathcona County in 2016. Two of these resulted in a fatality, and six involved major injuries.

Table 31: Motorcycle Collisions 2015/2016 by Severity

SEVERITY	2015	2016	% CHANGE
FATAL	1	2	100.00%
MAJOR	7	6	-14.29%
MINOR	10	11	10.00%
PDO	5	1	-80.00%
TOTAL	23	20	-13.04%

Table 32: Actions of Motorcyclists Killed or Injured in Collisions 2016

DRIVER ACTION	FATAL	MAJOR	MINOR	TOTAL
DISOBEY TRAFFIC SIGNAL	0	1	0	1
DRIVING PROPERLY	1	3	3	7
FOLLOWED TOO CLOSE	0	0	1	3
LOST CONTROL	1	1	1	3
RAN OFF ROAD	0	1	4	5
UNSAFE SPEED	0	0	1	1

3.11 Commercial Vehicle Collisions

Commercial vehicles include trucks >4500 kg, buses and tractor trailers. 11.7% of major injury collisions in Strathcona County in 2016 involved a commercial vehicle.

Table 33: Commercial Vehicle Collisions 2015/2016 by Severity

SEVERITY	2015	2016	% CHANGE
FATAL	0	0	N/A
MAJOR	7	7	0.00%
MINOR	44	36	-18.18%
PDO	201	154	-23.38%
TOTAL	252	197	-21.83%

3.12 Alcohol Related Collisions

Alcohol was involved in 34 collisions in 2016, including one fatal pedestrian collision.

Table 34: Alcohol Related Collisions 2015/2016 by Severity

SEVERITY	2015	2016	% CHANGE
FATAL	0	1	N/A
MAJOR	4	2	-50.00%
MINOR	7	9	28.57%
PDO	24	22	-8.33%
TOTAL	35	34	-2.86%

4.0 Appendix- Glossary of Terms

Definitions of terms used in this report:

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 with the exception of one or both vehicles backing.

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.

Right Angle

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.

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.

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.

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.

Backing

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

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 crash. 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, pedacyclist or pedestrian.

Struck Object

A collision in which the primary collision involved a single vehicle and a fixed object.

Animal

A collision involving a vehicle striking any animal, including a deer.

Pedestrian

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

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.

Minor Injury

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

Major Injury

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

Fatal Collision

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

PDO

Property damage only collision.

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.