

# Councillor Request Inquiry

## #17-2021

2021

### Increased Traffic Safety Concerns at the Intersection of RR 222 and TWP 530

Please provide information regarding the intersection of RR 222 and TWP 530 including:

- Vehicle traffic counts from the last three surveys to provide volumes and changes to the volumes;
- Expected changes to the volumes over the next 5 – 10 years with increased growth out of Ardrossan;
- Collision data intersection for the last ten years including types and severity; and
- County plans to improve safety at the intersection and the timelines to implement them.

#### Response

#### VEHICLE VOLUMES

Below are the volumes we have on record for the intersection. All counts have been gathered by Strathcona County. Alberta Transportation counts on the old Highway 824 are not near the intersection and not relevant. No counts were taken on the north/south legs of the intersection in 2017, as the road was under provincial jurisdiction at the time. As for the 2020 counts, our annual collection program was put on hold due to reduced volumes and travel pattern experienced during Covid19 restrictions. The data provided for 2020 has been extracted through specific study requests.

ADT Volumes				
Twp Rd 530 & Rge Rd 222 (Hwy 824)				
	North Leg	South Leg	East Leg	West Leg
<b>2008</b>	3,918	2,612	2,105	3,145
<b>2011</b>	2,998	2,215	1,888	2,461
<b>2014</b>	3,426	2,806	2,567	3,638
<b>2015</b>	3,219			
<b>2017</b>			2,379	2,672
<b>2020</b>	2,569		2,061	

#### PROJECTED VOLUME GROWTH

The current long term, full build out transportation model projects vehicle volumes as shown on the table below. Future planning studies are planned in the near future that will assess in greater detail to ensure more focused analysis captures aggregated growth in the immediate area.

ADT Volumes				
Twp Rd 530 & Rge Rd 222 (Hwy 824)				
	North Leg	South Leg	East Leg	West Leg
Long Term Projections	9000	6000	5000	5000

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## COLLISION HISTORY

**Intersection =** Township Road 530/Range Road 222  
**Intersection Type =** 4 leg  
**Traffic Control =** E-W stop control  
**Speed Limit =** 80 km/h E-W Direction  
80 km/h N-S Direction  
**Time Period =** Jan 1, 2011 to Dec 31, 2020  
10 years

### High Level Collision Summary

Severity Type	Number of Collisions	Percent of Total
Fatal	0	0.00
Major Injury	1	5.88
Minor Injury	9	52.94
Total Injury	10	58.82
Property Damage Only	7	41.18
<b>Total</b>	<b>17</b>	<b>100.00</b>

### Collision Type Summary

Primary Event	Number of Collisions	Percent of Total
Right Angle	11	64.71
Rear End	3	17.65
Backing	1	5.88
Off Road Left	1	5.88
Off Road Right	1	5.88
<b>Total</b>	<b>17</b>	<b>100.00</b>

### Weather Condition Summary

Weather	Number of Collisions	Percent of Total
Clear	12	70.59
Unknown	2	11.76
Snow	1	5.88
Raining	1	5.88
Fog/Smog/Smoke/Dust	1	5.88
<b>Total</b>	<b>17</b>	<b>100.00</b>

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## Light Condition Summary

Light	Number of Collisions	Percent of Total
Daylight	12	70.59
Sunglare	1	5.88
Darkness	4	23.53
<b>Total</b>	<b>17</b>	<b>100.00</b>

## Road Surface Condition Summary

Surface	Number of Collisions	Percent of Total
Dry	11	64.71
Slush/Snow/Ice	3	17.65
Wet	2	11.76
Unknown	1	5.88
<b>Total</b>	<b>17</b>	<b>100.00</b>

## Time of Day Summary

Time	Number of Collisions	Percent of Total
12:00 AM - 2:59 AM	0	0.00
3:00 AM - 5:59 AM	0	0.00
6:00 AM - 8:59 AM	2	11.76
9:00 AM - 11:59 AM	1	5.88
12:00 PM - 2:59 PM	2	11.76
3:00 PM - 5:59 PM	8	47.06
6:00 PM - 8:59 PM	3	17.65
9:00 PM - 11:59 PM	1	5.88
<b>Total</b>	<b>17</b>	<b>100.00</b>

## Day of the Week Summary

Day	Number of Collisions	Percent of Total
Monday	3	17.65
Tuesday	3	17.65
Wednesday	1	5.88
Thursday	2	11.76
Friday	1	5.88
Saturday	5	29.41
Sunday	2	11.76
<b>Total</b>	<b>17</b>	<b>100.00</b>

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## Month of the Year Summary

Month	Number of Collisions	Percent of Total
January	0	0.00
February	1	5.88
March	0	0.00
April	1	5.88
May	1	5.88
June	0	0.00
July	2	11.76
August	0	0.00
September	4	23.53
October	4	23.53
November	2	11.76
December	2	11.76
<b>Total</b>	<b>17</b>	<b>100.00</b>

## Annual Summary

Year	Number of Collisions	Percent of Total
2011	3	17.65
2012	1	5.88
2013	0	0.00
2014	2	11.76
2015	0	0.00
2016	3	17.65
2017	3	17.65
2018	1	5.88
2019	4	23.53
2020	0	0.00
<b>Total</b>	<b>17</b>	<b>100.00</b>

## PLANNED IMPROVEMENTS

Both stop signs in the eastbound and westbound directions were improved with the larger 90cm x 90cm size earlier this year. Recent assessments of the intersection have shown that streetlights are warranted. These have been planned and budgeted for installation this year. The installation of streetlights will include a streetlight on each corner to provide additional awareness of the intersection in low light and night conditions. Additionally, both the eastbound and westbound approaches to the stop control have rumble strips and Class-I line marking, including stop bars, edge lines, centrelines, and a stop ahead sign.

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The latest 10-year capital plan has the following projects identified for future project consideration:

- a) Functional Planning Study South of LEA (Hwy 21 to Rge Rd 222 and Twp Rd 530 to LEA boundary). Functional Planning Study scheduled for 2023.
- b) Review and design improvements to address future traffic volumes at the Twp Rd 530 Rge Rd 222 intersection are tentatively planned to be undertaken in 2026 or as guided by the Functional Planning Study.
- c) Construction of intersection improvements is not planned inside of the 10-year timeframe and is dependant on future growth throughout the area.

The design and construction timelines are based on future growth and needs. The pending Functional Planning Study will help to guide prioritizing and timing of transportation infrastructure growth and improvement as defined in growth plans.