

Update on Intersection Safety Device Program

Priorities Committee Meeting

April 28, 2020

Enforcement Services

Transportation Planning and Engineering

Purpose of presentation

1. THAT Administration provide a report by the end of March 2020 outlining the rationale for the red light ISD at Sherwood Drive and Granada Boulevard, including data that establishes the need for enforcement at this location, particularly for right hand turn infractions, and any other supporting information for how the Intersection Safety Device program is managed; and
2. THAT the report include a proposal for a robust communications plan to increase public awareness of the rationale behind the Intersection Safety Device program and details on how it is administered.

Presentation outline

- background ISD program
- how ISDs improve safety
- Strathcona County's 2018 ISD program guidelines
- site selection process for Sherwood Drive and Granada Boulevard ISD
- ticketing process
- violations - Section 54(2)
- evaluation
- fine distribution
- communication of new ISDs
- expanded communications plan

Automated Enforcement (AE) using Intersection Safety Devices (ISD's)

- in operation since 1999
- currently have 13 cameras in place at nine different intersections
 - three more under construction and will be implemented in 2020
 - Granada Boulevard WB at Sherwood Drive
 - 17 Street NB/SB at Baseline Road
- ISDs capture both speeding and red-light violations



How do ISDs improve safety?

- discourage red-light running to reduce the likelihood of a T-bone collision
- ISDs reduce collision severity by discouraging speeding
- protect pedestrians through improved driver behaviour and awareness
 - encouraging drivers to come to a full stop on red before entering the crosswalk
 - encourage drivers to comply where left turns have been restricted during green phases to allow pedestrians to cross safely

Collision Category	Estimate of Percentage Change in Number of Collisions
Total Collisions	+1.0%
Property Damage Only (PDO) Collisions	+10.6%
Severe Collisions	-32.3%
Angle Collisions	-31.3%
Rear-End Collisions	+9.4%

<http://www.transportation.alberta.ca/Content/docType47/Production/isdredlightcameraanalysis.pdf>

Intersection Safety Device Program: guidelines for ISD use in Strathcona County

- sets out guidelines for ISD use in the County above and beyond what is required by Solicitor General
 - site selection process
 - evaluation process
 - removal of an ISD
 - public education
- ensures ISD use is safety-focused, transparent, and accountable

Site selection process

- Traffic Safety Advisory Team (TSAT)
 - representatives from Transportation and Agriculture Services, Transportation Planning and Engineering, and RCMP & Enforcement Services
- seven intersections with high rates of angle collisions and/or high injury collision rates were identified through network screening
 - Baseline Road and 17 Street
 - Baseline Road and Broadview Drive
 - Baseline Road and Glenbrook Boulevard
 - Clover Bar Road and Lakeland Drive
 - Sherwood Drive and Granada Boulevard
 - Sherwood Drive and Lakeland Drive
 - Wye Road and Ordze Road (eastbound)

In-Service road safety review (ISRSR) Process

Diagnose Issues

- Site visits (day, night)
- Collision analysis
- Geometric analysis
- Operational analysis
- Human factors analysis
- Intersection offence study



Consider Solutions

- Identify potential treatments
- Apply collision modification factors
- Economic analysis



Recommend Treatments

- Short-term (relatively low-cost, readily-implementable countermeasures)
- Long-term (typically higher-cost, slower to implement improvements)

ISD site selection

- all seven intersections put through the ISRSR process
ISDs were chosen at two intersections:
 - Baseline Road and 17 Street (all directions)
 - Sherwood Drive and Granada Boulevard (NB, SB WB)
- safety concerns at other five intersections were addressed by alternative countermeasures

ISRSR

Sherwood Drive and Granada Boulevard

Date	Bicyclist/ Pedestrian	Age	Vehicle Direction
16-06-2013	Bicyclist	57	southbound through
02-08-2013	Bicyclist	14	eastbound right
08-08-2013	Bicyclist	13	eastbound right
27-08-2013	Bicyclist	13	westbound right
09-05-2014	Pedestrian	16	northbound right
23-09-2014	Pedestrian	16	northbound right
23-07-2015	Bicyclist	18	westbound left
25-02-2016	Pedestrian	33	northbound right
12-12-2017	Pedestrian	85	westbound left

- location identified due to:
 - high incidence of angle collisions
 - highest frequency of vehicle vs ped./cyclist collisions
 - increasing level of resident concern with safety



Traffic Safety Advisory Team site visit

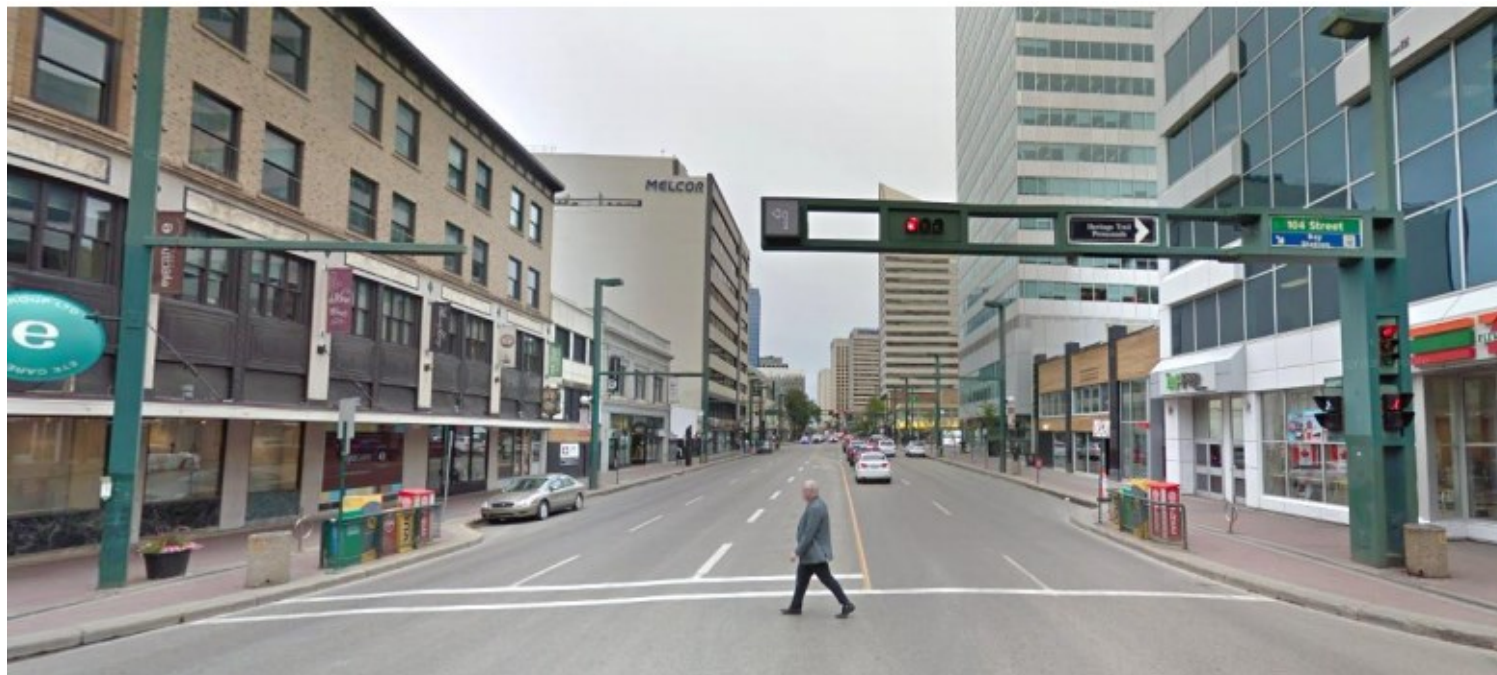
- several specific concerns were noted:
 - high volume of pedestrians (many youth and elderly)
 - poor road user behaviour, both drivers and pedestrians
 - no safe/feasible location for police to observe traffic
 - long crossing distances (seven to eight lanes)
 - presence of many businesses/mall, high density housing, two schools and nearby transit stops
 - presence of signage that does not meet current urban standard
 - inconsistency of pavement markings
 - high volume of left turning traffic from Sherwood Drive (NB) onto Granada Boulevard (EB) at peak times
- intersection offence study results:
 - 34 red-light violations/one-hour

- INSERT VIDEO HERE

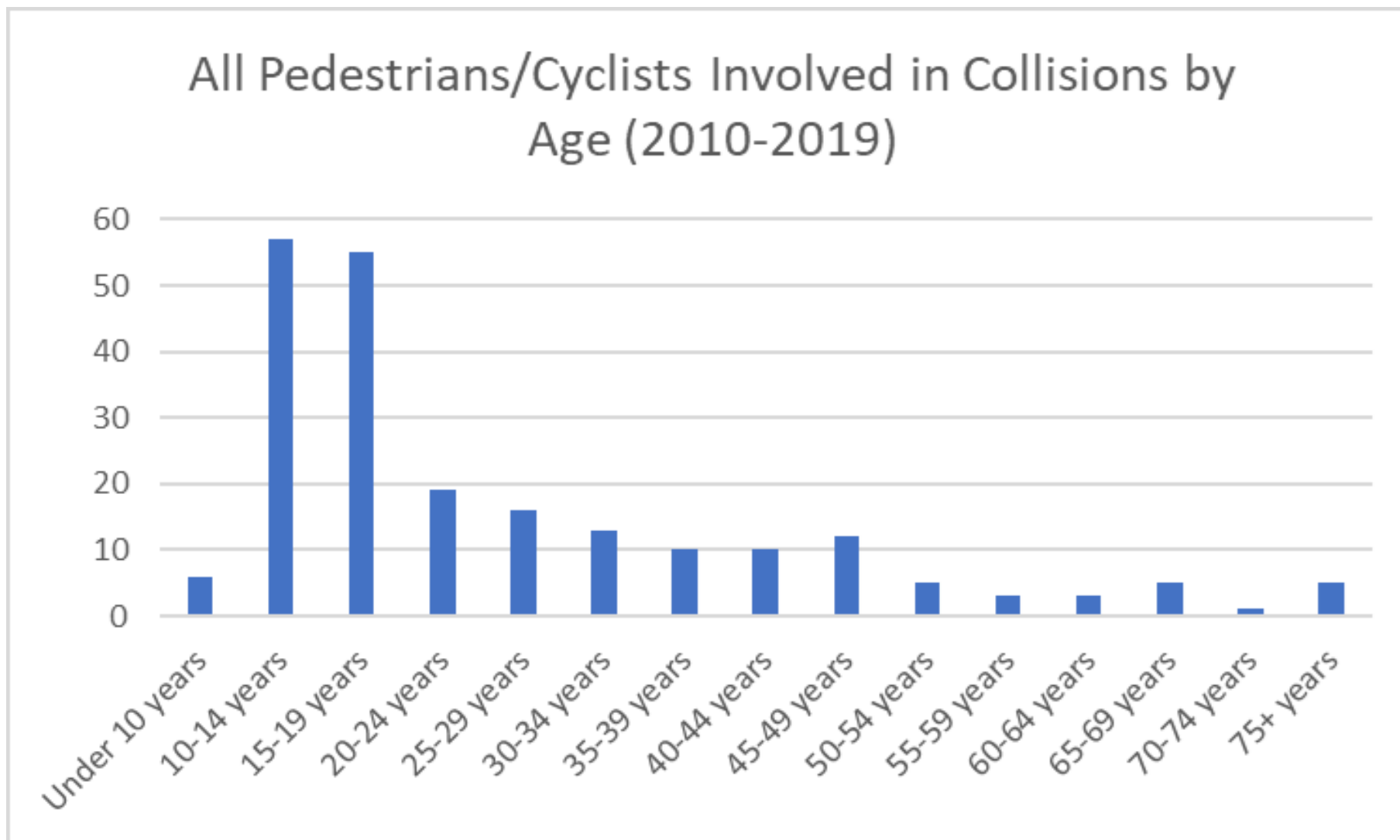
Consider options



- long-term recommendation
 - multiple intersections of concern
 - re-imagining of the Sherwood Drive corridor
 - will require extensive planning, consultation and budgets to complete
 - CITP area redevelopment plan



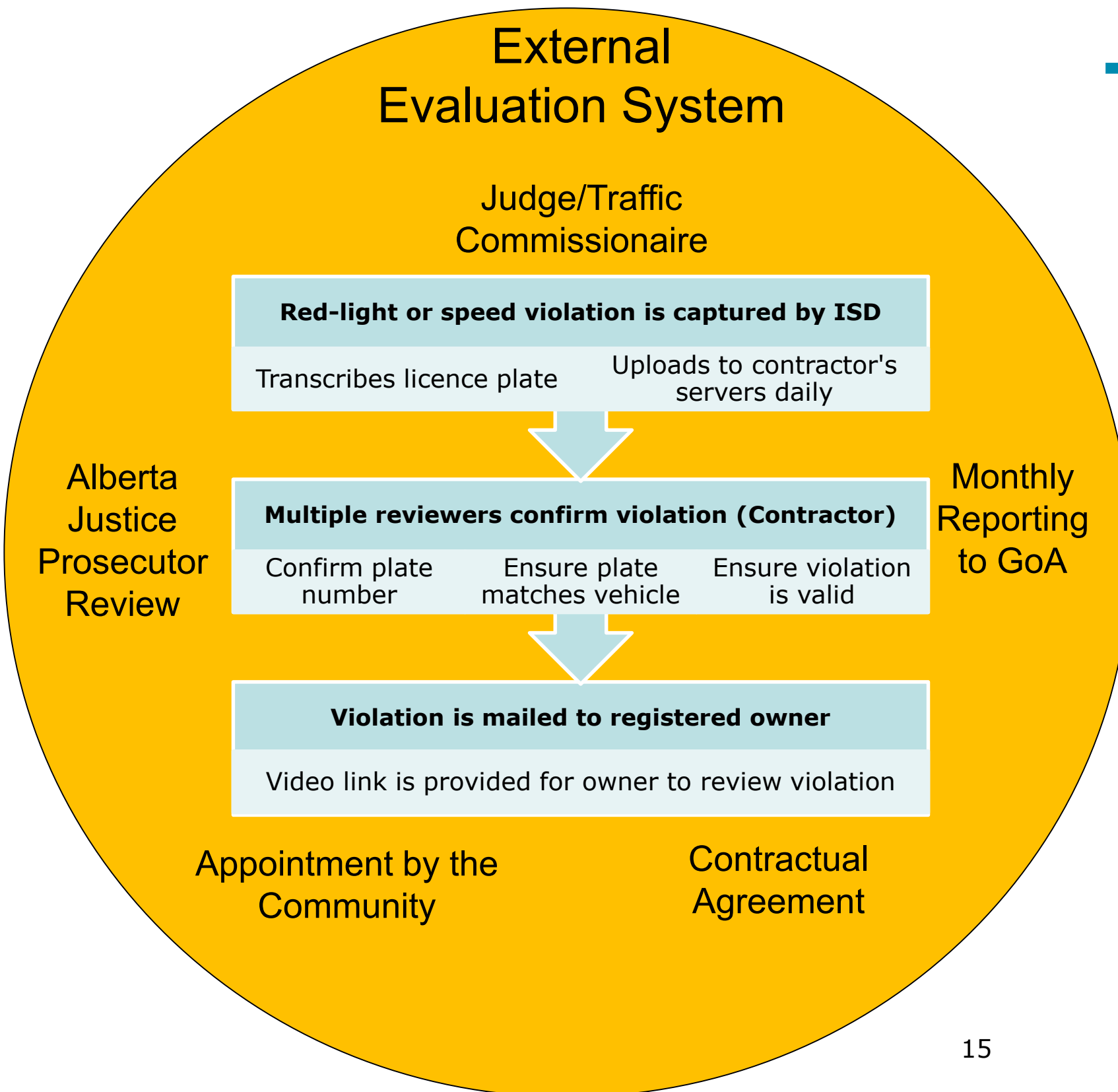
Consider options



Short-term recommendation

- immediate action required
- enforcement the most significant safety benefit in the short-term
- placement of ISDs was recommended
- recommended engineering modifications

80% of pedestrian deaths so far in 2019 are older adults, seniors • CBC Toronto



Ticketing process

- rigorous system based on accuracy and transparency
- several checks and balances to ensure violations issued through AE program are valid
- November/December 2019
 - 30% of violations captured at Sherwood Drive and Granada Boulevard did not result in a violation issued

Violations

- in Strathcona County, Alberta Solicitor General has granted contracted CPOs the authority to issue two violations ONLY:
 - Section 115(1)(p) of the Traffic Safety Act – Exceed Posted Speed Limit
 - Section 54 of the Use of Highway, Rules of the Road Regulations – Fail to stop at intersection controlled by a red light
- contracted CPOs cannot issue violations for a lesser included offence under the Act or Regulations.
 - fines for provincial offences are set by the Government of Alberta
- Provincial Offence Procedures Act (POPA) prohibits the use of automated equipment for the purpose of issuing municipal tags

Section 54(2)

- *Section 54 (2) of the Use of Highway, Rules of the Road Regulations states:*
 - *notwithstanding subsection (1), unless a traffic control device prohibits a right turn from being made on the red light, a person driving a vehicle may turn the vehicle and proceed right at the intersection **if that person first stops** the vehicle and yields the right of way*
 - (a) to any pedestrians that are in the intersection, and*
 - (b) to any vehicles that are in or approaching the intersection*
- violation is not related to a turning offence
 - fail to stop at intersection controlled by a red light
- unable to separate out violations issued to drivers turning right versus those proceeding straight through the intersection
 - the post-offence action of a vehicle is not recorded

Section 54(2)

- a “stop” is defined by the legislation as: to bring (something) to a standstill
 - before issuing a violation, several reviewers must be satisfied the vehicle failed to come to a standstill at any time during its travel through the intersection
 - there are no speed tolerances in the execution of a failure to stop; it does not form part of the definition of the offence
 - by removing the subjective interpretation, we ensure a uniform transparent application of the rules

- INSERT VIDEO HERE

Evaluation

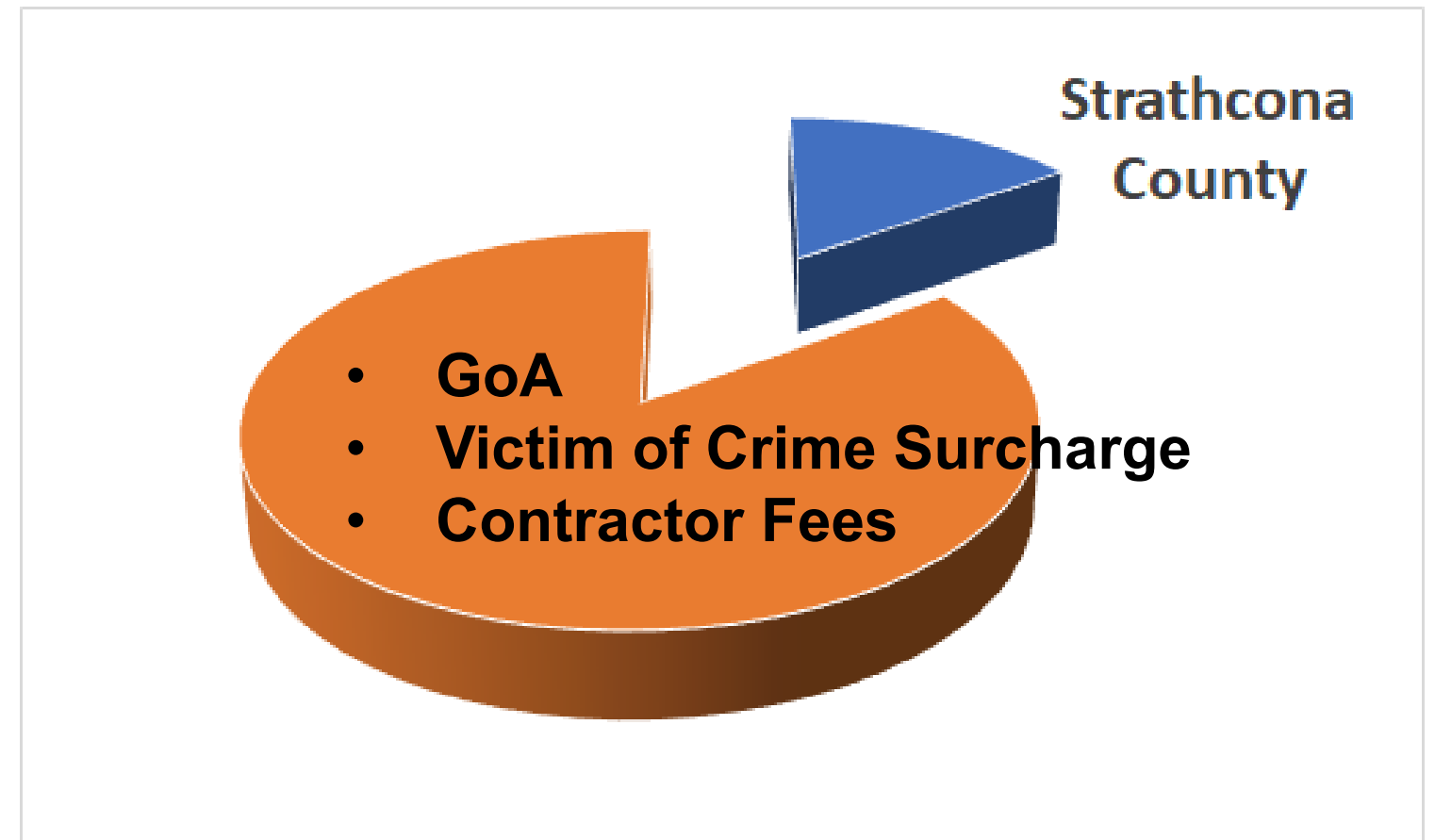
- as per the 2018 Intersection Safety Device Program guidelines, new ISDs will be evaluated annually based on:
 - collision history (actual safety effects)
 - offence and speed data (potential safety effects)
- video-based conflict analysis
 - uses close calls as a measure of the safety effects of the ISD
 - provides faster, more proactive evaluation of the success of an intervention
- removal of an ISD will be considered if its evaluation reveals a decrease in safety or no actual or potential safety effects
- should the decision be made to remove an ISD, the TSAT will recommend what should be done at the intersection to improve safety in lieu of the ISD

Preliminary evaluation of Sherwood Drive and Granada Boulevard ISD

Month	# of vehicles monitored	# of speed violations issued	# of red-light violations issued	% of vehicles receiving violation
November 2019	424,715	184	962	0.269%
December 2019	413,635	125	799	0.223%
January 2020	384,414	93	736	0.215%

Fine distribution

- fines collected from AE violations are distributed between:
 - Victim of Crime Surcharge
 - Government of Alberta
 - Third Party Contractor
 - Strathcona County



Communications prior to system activation Fall 2019

- local newspaper coverage
 - articles in February 2019 and October 2019
 - advertising September-October 2019
- Facebook – coverage through September till present – 17,179 hits
- Twitter – coverage through September till present - 3,803 hits
- Strathcona County webpage
- Strathcona County facilities digital information screens



Strathcona County
@StrathcoCounty

NEW! Safety devices installed at 2 new #shpk intersections to help decrease collisions. Drivers are reminded to obey posted speed limits and come to a complete stop at a red light, before turning right. Location list is here: ow.ly/X0T650wr68v #strathco



1:15 PM · Sep 26, 2019 · Hootsuite Inc.

9 Retweets 7 Likes



Strathcona County

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NOTE: Safety devices installed at the following 2 new Sherwood Park intersections to help decrease collisions:

- ➡ Sherwood Drive and Granada Blvd/Festival way (north, south and westbound)
- ➡ Baseline Road and 17 St (east and westbound)

Drivers are reminded to:

- obey posted speed limits
- avoid entering an intersection when the light is red
- come to a complete stop at a red light, before turning right.

Location list of all intersection safety devices in Sherwood Park: <https://www.strathcona.ca/emergencies-enforcement/policing-and-enforcement/traffic-safety-and-enforcement/intersection-safety/enforcement-intersections/>

👍 😡 😂 39

178 Comments 73 Shares

Safety devices installed at two new intersections

In an effort to help decrease collisions, Strathcona County has installed intersection safety devices at the following new locations:



**NEW: Sherwood Drive and
Granada Boulevard/Festival Way**
(north, south and westbound)

NEW: Baseline Road and 17 Street
(east and westbound)
Coming soon: (north and southbound)

Registered vehicle owners will receive violation tickets when:

- Entering the intersection when the light is red
- Exceeding the posted speed limit and/or
- Failing to come to a complete stop at a red light, before turning right.

strathcona.ca/intersectioncameras 780-467-7741



New traffic cameras enroute



Lindsay Morey

[More from Lindsay Morey](#)

Published on: February 1, 2019 | Last Updated: January 31, 2019 6:13 PM EST



Red light/speed cameras installed at two new intersections



Travis Dosser

[More from Travis Dosser](#)

Published on: October 4, 2019 | Last Updated: October 4, 2019 3:26 PM EDT

What actions are we taking to address the educational gap identified?

- Option 4 initiative underway
- electronic road signs
- Sherwood Park News ads/articles
- Strathcona County website front page banner
- violation ticket inserts
- utility bill stuffers
- Facebook and Twitter Campaign



Conclusion

- the ISDs at Sherwood Drive and Granada Boulevard are a safety-focused, data-driven initiative, implemented to reduce collisions at this location
- installed and operated in accordance with Strathcona County's 2018 ISD Program Guidelines, which were developed to ensure ISD use in Strathcona County is transparent and accountable
- an expanded communication campaign has been started to help residents understand ISD use at this location and the program in general