

# **2019 Expansion Intersection Safety Device (ISD) Program**

Strathcona County Priorities Committee Meeting- January 29, 2019

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# Presentation Purpose

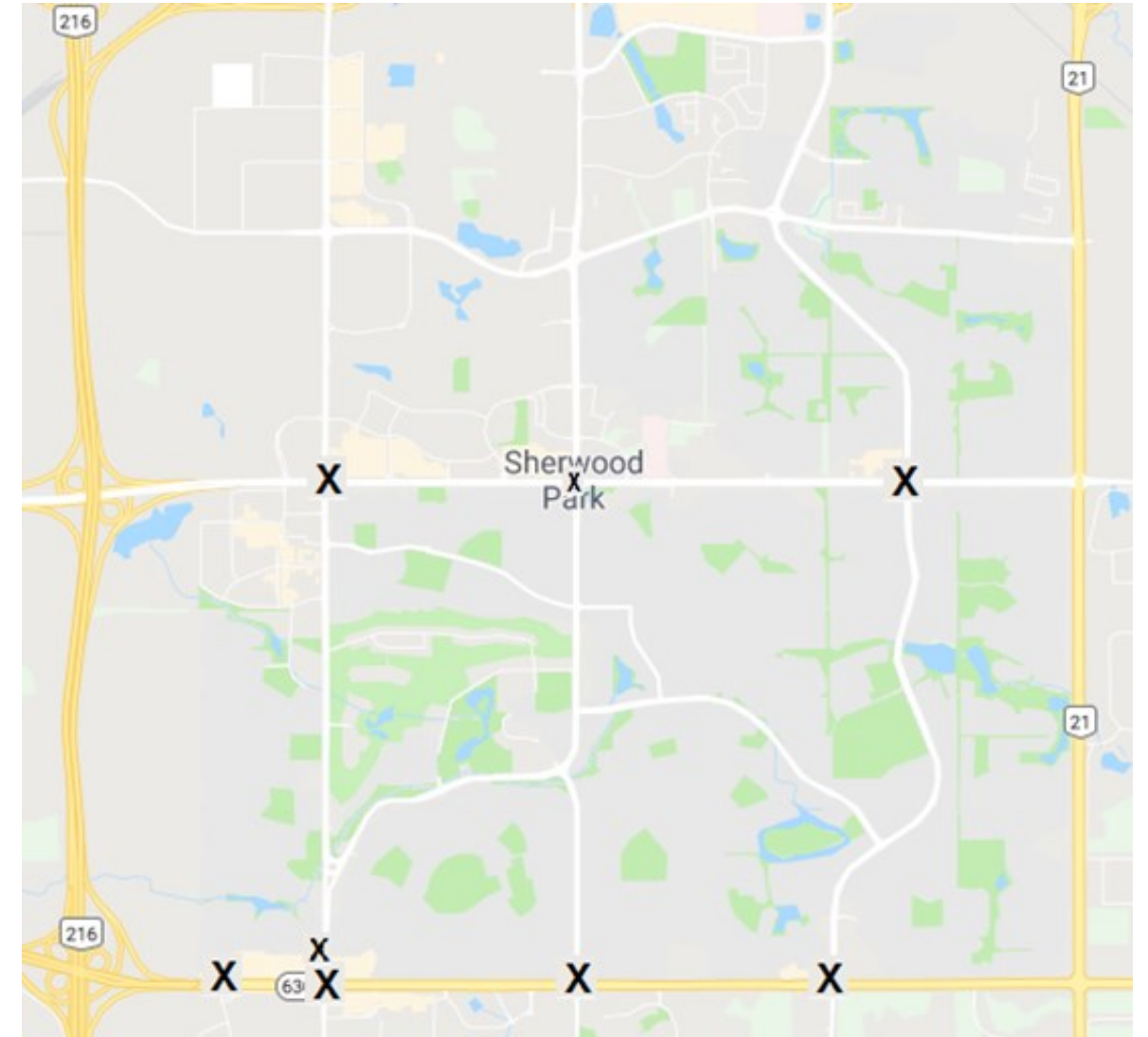
- The purpose of this presentation is to provide the Priorities Committee with information regarding the upcoming expansion of our ISD program in 2019.
  - In March 2018, the Traffic Safety Strategic Plan Update was presented to Priorities Committee.
  - Implementation of the Intersection Safety Action Plan was identified as a traffic safety priority for 2018, including the expansion of the County's ISD program.

# Presentation Outline

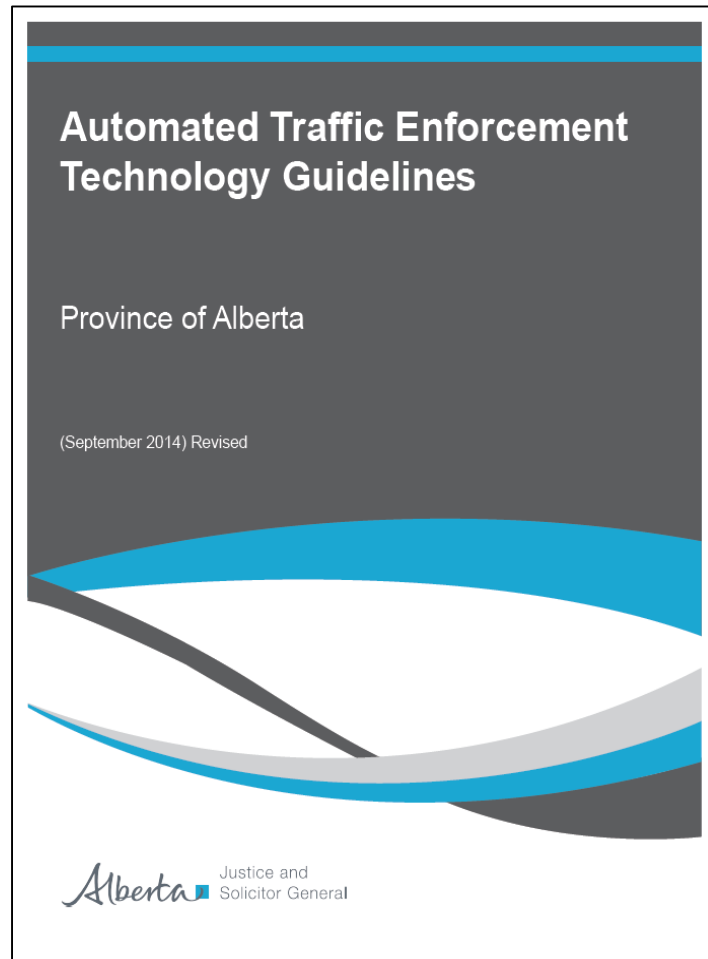
- Background ISD program in the County
- How ISDs improve safety and align with our traffic safety goals
- Review of ISD program (2018) and site selection process
- Plan for ISD expansion
- Plan for communications for ISD expansion
- Evaluation of new ISDs

# Existing ISD Program

- In operation since 1999
- Currently have 10 cameras in place at 7 different intersections
- ISDs capture both speeding and red light running violations (including failure to stop before turning right at red light)



# Intersection Safety Device Technology Guidelines



## 2. Site Selection Criteria

**Automated traffic enforcement technology sites will not be selected randomly.**

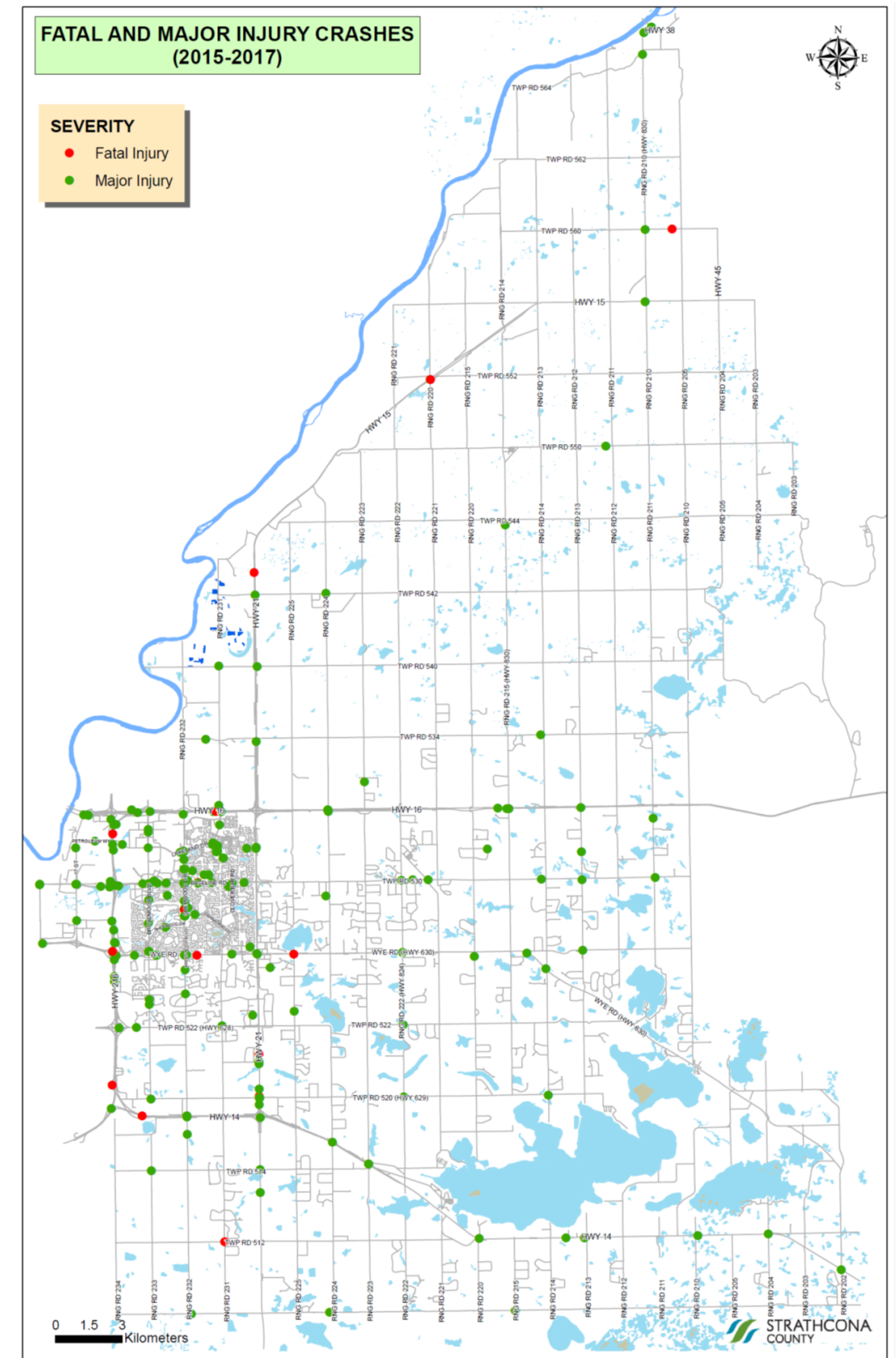
One or more of the following must exist before automated traffic enforcement technology is used at a specific site.

- Areas or intersections where conventional enforcement is unsafe or ineffective;
- Areas or intersections with an identifiable, documented history of collisions;
- Areas or intersections with an identifiable, documented history of speeding problems;
- Intersections with an identifiable, documented history of offences;
- Intersections near schools, post secondary institutions, other areas with high pedestrian volumes.
- High-speed or multi-lane roadways;
- School and play-ground zones or areas;
- Construction zones; or
- Areas where the public or a community has expressed concern related to speeding.



# Traffic Safety in the County

- Guided by Traffic Safety Strategic Plan 2020
  - Vision: No one is seriously injured or killed while travelling on Strathcona County's road network
- In 2017, 42% of the County's injury collisions happened at intersections.

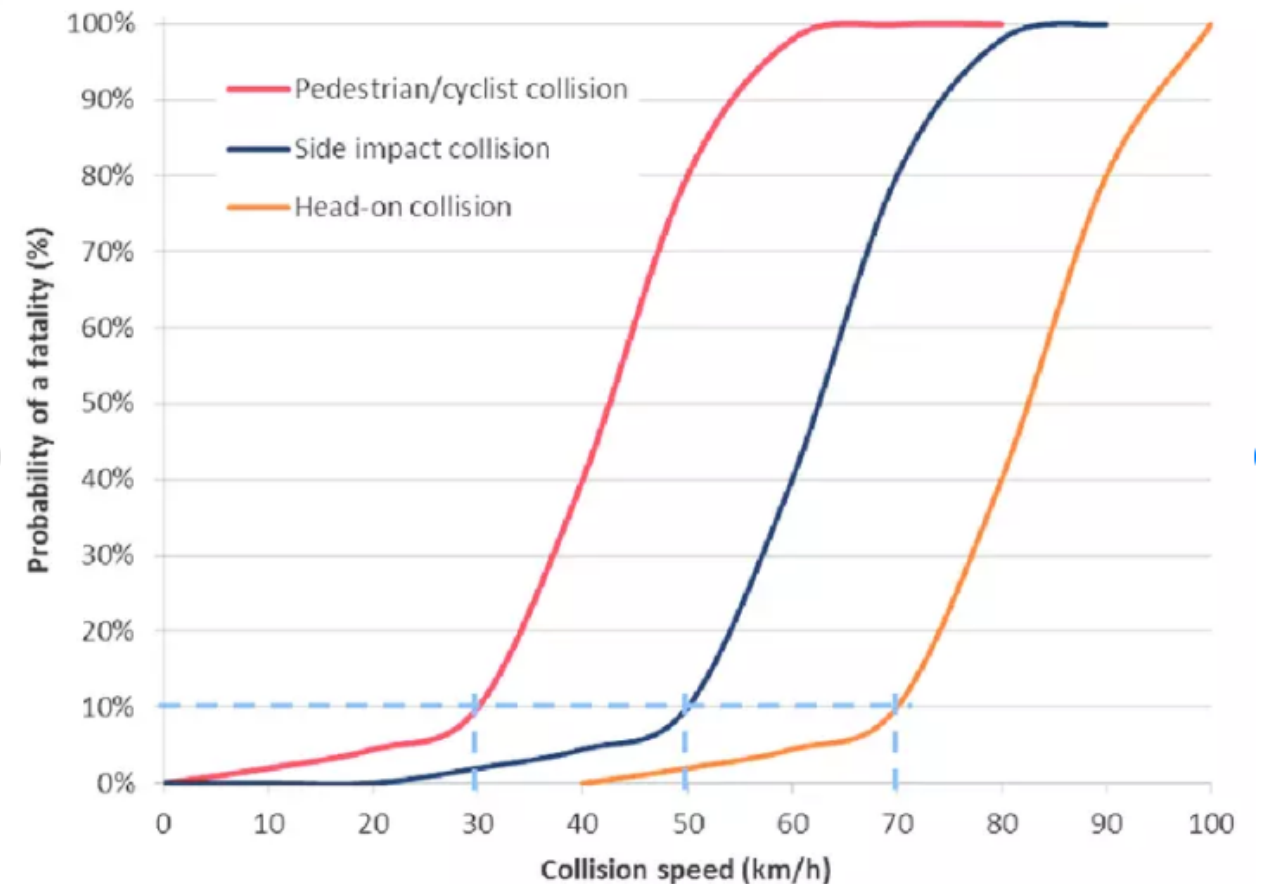


# How do ISDs improve safety?

- Proven to reduce the incidence and severity of angle collisions, which are the most dangerous to vehicle occupants
- Reduce the speeds at which drivers enter intersection and reduce red light running.

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 additional 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



# How were sites selected for ISD expansion?

- Multidisciplinary Team
  - 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 collision analysis.
  - Baseline Road & 17 Street
  - Baseline Road & Broadview Drive
  - Baseline Road & Glenbrook Boulevard
  - Cloverbar Road & Lakeland Drive
  - Sherwood Drive & Granada Boulevard
  - Sherwood Drive & Lakeland Drive
  - Wye Road & Ordze (East Bound)

# 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

- After putting all 7 intersections through the ISRSR process, ISDs were chosen as the most appropriate countermeasure to improve safety at two intersections:
  - Baseline Road & 17 Street (All directions)
  - Sherwood Drive & Granada Boulevard (N/B, S/B W/B)
- Safety concerns at other five intersections will be addressed by alternative countermeasures, such as geometric changes or signal phasing changes.

# Plan for ISD Expansion

- Installation of necessary infrastructure will take place in the spring of 2019 depending on vendor availability
  - Poles, cameras and permanent warning signs
- Once operational, a four-week familiarization period will be undertaken, with warning notices being issued to violators



# Evaluation of ISDs

- All automated traffic enforcement (ATE) programs are audited every three years by the Solicitor General
  - County was last audited in 2017
  - “Overall, their ATE program is well-run and those involved were knowledgeable and appeared professional and dedicated to ensuring it is run in accordance with the underlying principles of the ATE program”
- As per the Strathcona County ISD program guidelines, ongoing evaluation of new ISDs will be undertaken on an annual basis above and beyond what is required by the Solicitor General.

# Evaluation of ISDs

- Evaluated based on:
  - Actual safety effects (collision history)
  - Potential safety effects (offence and speed data)
- Removal of an ISD is considered when:
  - An increase in serious injury collision rate is detected for 2 consecutive years that can be clearly attributed to the installation of the ISD, or
  - No decrease is detected in rates of violations or serious injury collision rates (compared to baseline data) for two consecutive years

# Communications

- In addition to signage in advance of the intersections and the four week warning period, prior to the implementation of the new ISD sites:
  - Advertisement will take place in local media for a period of three months prior to enforcement taking place (Sol Gen requirement)
  - ISD webpage will be maintained on the County website
  - A full communication plan will be developed to ensure our residents are fully aware of the expansion of the program.
  - Advice of the Traffic Safety Advisory Committee will be sought in the development of this communication plan.

# 2019 ISD Expansion

Questions?