



City of  
Courtenay

City of Courtenay

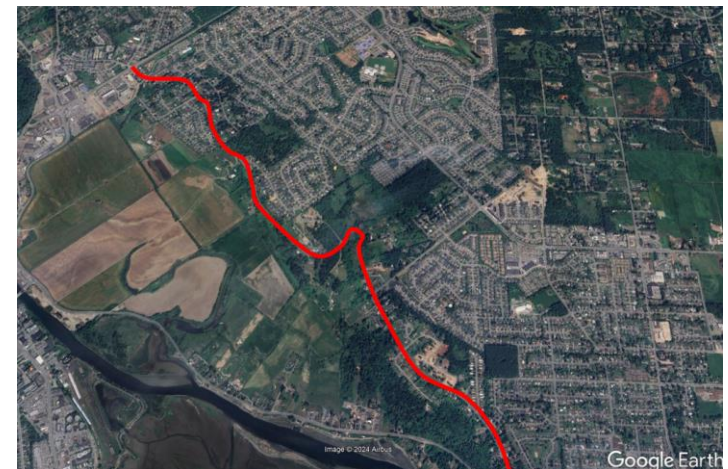
# Back Road Traffic Calming Study

Presented by:  
Stanley Li, M.Sc., P.Eng., PTOE  
Chao Qi, M.Sc., EIT  
Morrison Hershfield now Stantec  
2024/10/23, Council Presentation



# 1 . Introduction of the Traffic Calming Study

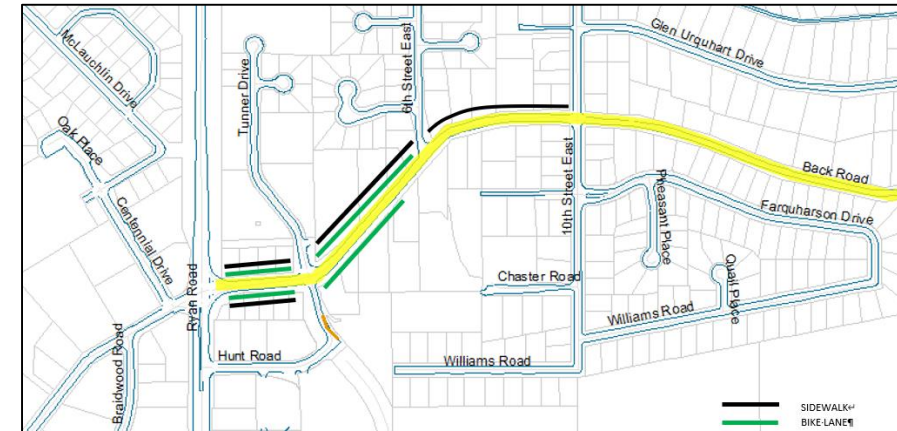
- In early 2024, the City received a formal petition to address speed, noise, and safety concerns on **Back Road**.
- Morrison Hershfield now Stantec (MHnS) was retained to conduct a review of traffic calming needs on Back Road.
- The study is based on the Traffic Calming Guide and Policy developed by MHnS.



# 2. Back Road Conditions

- The area along Back Road from Ryan Road to the City border is **generally residential** in nature, comprised of rural properties with single family dwellings in a low-density environment.

<b>Road Classification:</b>	Arterial Road from Ryan Road to 10th Street East; Collector Road from 10th Street East to city boarder.
<b>Cycling Network Plan (CNP) Implications:</b>	NA
<b>Transit Route:</b>	On demand transit service is provided along the corridor.
<b>Traffic Volume:</b>	Most segments of Back Road have an AADT ranging from 2,000 to 2,500 vehicles approximately.
<b>Posted Speed Limit:</b>	50 km/h
<b>Alternate use:</b>	NA
<b>Pedestrian Access:</b>	No dedicated pedestrian facility from 10 <sup>th</sup> Street East to city border.



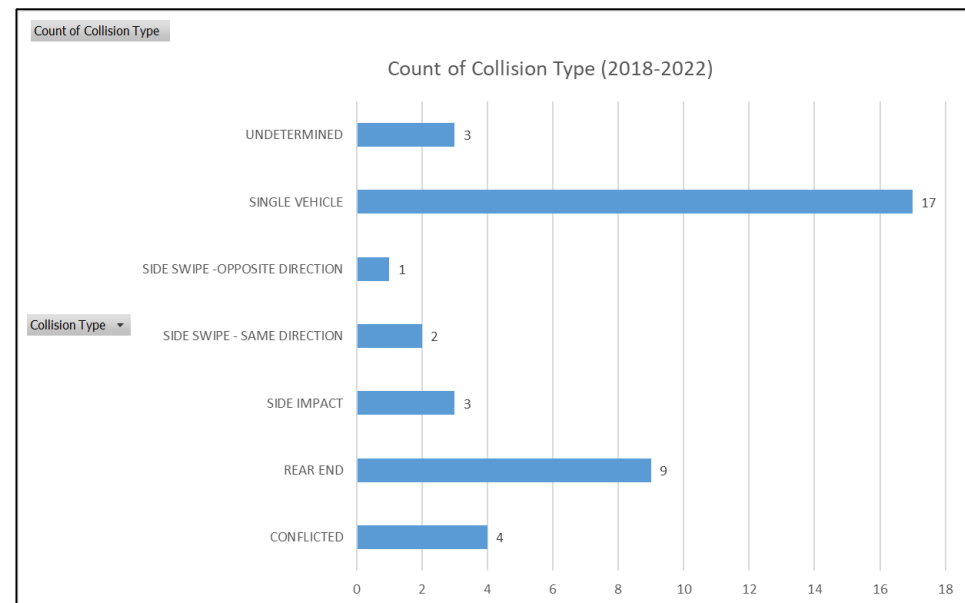
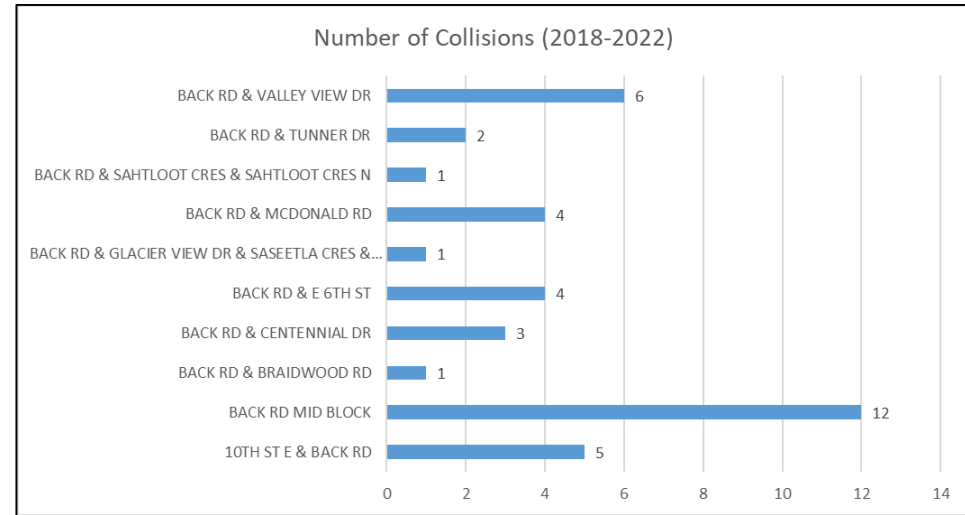
Back Road – Ryan Road to 10<sup>th</sup> Street East



Back Road – 10<sup>th</sup> Street East to border

# 3. Back Road Collision Analysis

- A review of the ICBC collision data within the study area was undertaken for the latest five-years (2018-2022).



# 4. Back Road Speed & Volume Data Collection and Analysis

- Back Road & Valley View Drive
- Back Road & Snowbird Lane
- Back Road & Marsland Drive
- Back Road & 6th Street East
- Back Road & 10th Street East



# 5. Back Road Traffic Calming Analysis – Step 1: Initial Screening

Back Road meets the **initial screening warrant criteria** for traffic calming treatments

Criteria	Conditions	Pass / Fail
Roadway must be a local or collector, featuring no more than two travel lanes (one lane for each direction).	Back Road is a collector road in general.	Pass
Roadway must have a minimum of 500 annual average daily traffic (AADT).	ADT data is obtained from the following traffic speed/count locations: 1. Back Road @ Snowbird Lane NB: 1108 2. Back Road @ Valley View SB: 1284 3. Back Road @ Marsland Drive NB: 1105 4. Back Road @ 6th Street East / 10th Street East approximately 5000 All locations pass this criterion.	Pass
The posted speed limit shall not be greater than 50 km/h.	Posted speed limit along Back Road is 50 km/h	Pass
85 <sup>th</sup> percentile speed of the roadway should be greater than the posted speed limit	85 <sup>th</sup> percentile speed data is estimated from the following traffic speed/count locations: 1. Back Road @ Snowbird Lane NB: 61 km/h 2. Back Road @ Valley View SB: 60 km/h 3. Back Road @ Marsland Drive NB: 57 km/h 4. Back Road @ 6th Street East: 56 km/h All locations pass this criterion.	Pass
Roadway section should be longer than 150 metres.	Back Road (from Ryan Road to Strathcona Crescent under the jurisdiction of the City of Courtenay) is about 4 km in length.	Pass
Roadway must be assumed and maintained by the City of Courtenay.	Back Road (from Ryan Road to City Boundary) is under the jurisdiction of the City of Courtenay.	Pass
Zoning should be primarily residential in nature.	Back Road corridor is predominantly lined with residential units, mainly single-family homes.	Pass
No traffic calming initiatives have been implemented in the past 36 months, and there are no scheduled capital projects within the next 36 months that would address the traffic issues.	No traffic calming measures have been implemented previously, and there are currently no capital projects planned for traffic calming.	Pass
<b>Overall</b>		<b>Pass</b>

# 5. Back Road Traffic Calming Analysis – Step 2: Pint Assessment and Prioritization

- **Point assessment** and prioritization have been conducted for five locations.
- **Weighted points** are assigned based on speed, volume, collisions, vulnerable road users, and active transportation facilities

Location	Point Assessment Score	Traffic Calming Priority	Traffic Calming Requirement
Back Road & Valley View Drive	79	III	Only traffic calming treatments with physical minimal impact on traffic movement and accessibility should be considered.
Back Road & Snowbird Lane	71	III	Only traffic calming treatments with physical minimal impact on traffic movement and accessibility should be considered.
Back Road & Marsland Drive	61	II	Only simple traffic calming measures without physical alteration of the roadway, i.e., signage and/or pavement markings should be applied.
Back Road & 6 <sup>th</sup> Street East	61	II	Only simple traffic calming measures without physical alteration of the roadway, i.e., signage and/or pavement markings should be applied.
Back Road & 10 <sup>th</sup> Street East	55	I	No traffic calming action is needed

Note: The traffic calming priority is classified into 5 categories (I to V) from the lowest to the highest based on the scoring result.

# 5. Back Road Traffic Calming Analysis – Step 2: Pint Assessment and Prioritization – Cont’d

- **Back Road at Valley View Drive** is prioritized first with a relatively high score under Category (III). However, staff advise considering Category IV actions to effectively address speeding concerns.





# 6. Back Road Traffic Calming Analysis – Traffic Calming Design

## Mini Roundabout

- Speeding is prevalent at this location, with the 85th percentile speed being 10 km/h higher than the posted limit and 45% of vehicles traveling over 60 km/h. **A mini roundabout will effectively reduce vehicle speed.**
- Collision data indicates issues related to speeding and turning/yielding at this intersection. **A mini roundabout can help mitigate these types of collisions.**



# 6. Back Road Traffic Calming Analysis – Traffic Calming Design – Cont'd

## Raised Median

- Raised medians will further **encourage vehicles to slow down** before entering the mini roundabout.
- Raised medians can help **mitigate collisions caused by speeding or overtaking**, which have been reported at this location.



# 6. Back Road Traffic Calming Analysis – Traffic Calming Design – Cont'd

## Signage

- It is suggested to install roundabout ahead , 30 km/h advisory speed limit and yield signs at all legs of the new roundabout.
- **Animal crossing warning signs** are recommended close to this location as collisions with animals have been recorded..



# 6. Back Road Traffic Calming Analysis – Traffic Calming Design – Cont'd

## Guardrail

- Guardrail is recommended near the mini roundabout and east of 10th Street E, along the south side of Back Road.
- Currently, there is no guardrail or shoulder in place. Installing a guardrail is crucial for keeping vehicles on the road and can significantly **reduce the severity of run-off-road collisions.**



# 6. Back Road Traffic Calming Analysis – Traffic Calming Design – Cont'd



Thank you!  
Questions?

