



---

ONTARIO PROVINCIAL POLICE

---

# Road Safety

## *Traffic Calming Measures*



# What are we going to talk about today?

- Road Safety Issues
- Pillars of road safety
- Traffic calming
- Active Transportation – pedestrians and cyclists
- Data collection
- Psychology of Speed
- The future





# Road Safety Issues

- North Bay OPP is seeing a large number of traffic complaints in the form of speeding on rural roads.
- Police can only be one part of the solution.
- The Municipality responsible for ensuring that roadways serve the needs of the community and all users, including: cars, pedestrians (including those with accessibility needs), cyclists, emergency vehicles and snow removal equipment.
- Ensuring roadways are safe may involve the implementation of traffic calming measures and speed management.





# Pillars of road safety.

Who needs to be involved?

- Municipality – council, PSB, Public Works etc
- Emergency Services – Police, Fire, Ambulance
- The citizens
- MTO
- Schools
- Transportation Consultant





# What are traffic calming measures?

- Traffic calming is the deliberate slowing of traffic in residential areas.
- Traffic calming can take place on a single street, or across a larger neighbourhood.

The Centre for Active Transportation (TCAT)





# Objectives of Traffic Calming

- Increase safety in neighbourhoods
- Improve livability of neighbourhoods
- Restore Streets to the Intended Function
- Maintain Access Routes for Emergency Services, Public Transit and Maintenance Services
- Promote Public Participation and Community Support





# Effectiveness

- Speed
- Traffic Volume
- Traffic – Pedestrian – Cyclist Safety
- More active transportation leads to less obesity and it's better for the environment





# Active Transportation – pedestrians and cyclists

- When considering local roads, we need to take in account that there will also be pedestrians and cyclists using the roads.





# Traffic Calming Measures

- Enforcement;
- Stop Signs;
- Dynamic Speed Signs;
- Lane Narrowing via Pavement Markings (Road Striping and The Road Diet)
- Speed Humps/Speed Tables;
- Public Education;
- Centre Medians;
- Lane Narrowing (temporary); and
- Maintenance and Signage.





# Advantages and Disadvantages

- Snow Removal
- Emergency Vehicles
- Cost
- Street Parking
- Difficulty
- Maintenance





# Road Striping

- Using paint to narrow lanes
- Creating bike lanes
- Narrower lanes causes people to drive slower

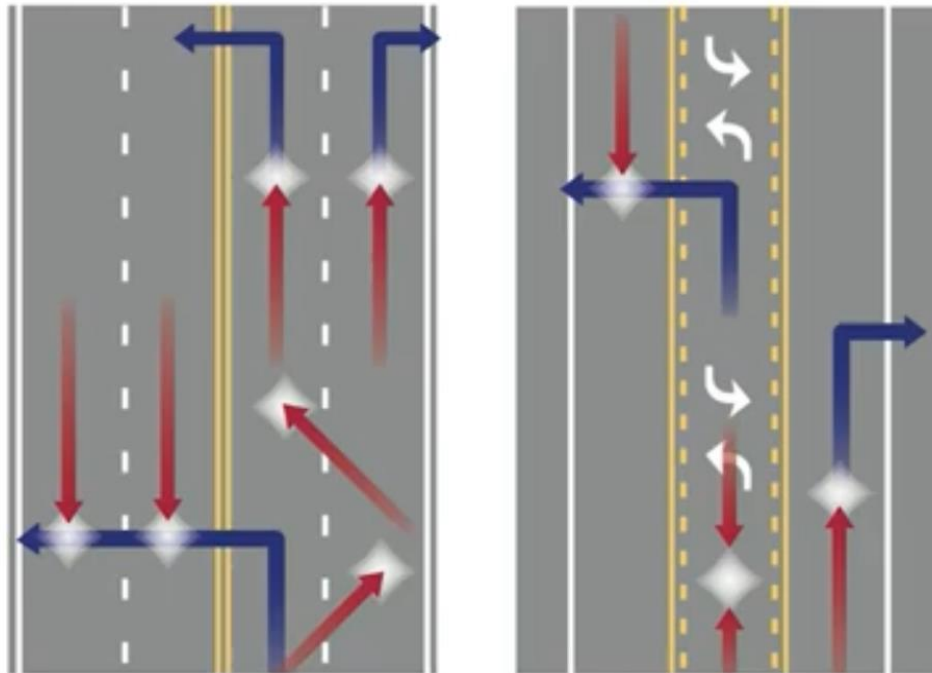




# SAFETY

## A PROVEN SAFETY COUNTER-MEASURE

- Left (Inside) Lane is shared by higher speed thru traffic & left-turning traffic
- Road Diets reduce conflict points that contribute to **rear-end, left-turn, and sideswipe crashes**



**19 - 47%**  
**REDUCTION**  
*in overall crashes*

*Source: Road Diet Brochure (FHWA)*



# Advisory Cycling Lanes



**A new way for  
drivers and cyclists  
to share the road**

## **How they work:**

- ➔ Motorists share a wide lane with oncoming vehicles
- ➔ Each side of the road has an advisory cycling lane
- ➔ Drivers move into the right-hand cycling lane when passing oncoming vehicles
- ➔ Motorists must yield to cyclists already in that space
- ➔ Motorists travel behind cyclists until it is safe to move back into their lane



## Road Diet





# Psychology of Speed

- <https://www.cbc.ca/news/canada/calgary/road-design-calgary-psychology-of-speed-1.4850684>
- Using infrastructure to slow vehicles down making it feel uncomfortable to race down residential roads.





# Data collection.

- First need to identify locations that would benefit from traffic calming measures.
- Decide on method – data, petition, council etc.
- Then collect data:
  - Look at collisions over a period to time
  - Speed Study
  - Pedestrian/Cyclist/Traffic Volume
  - Review existing road infrastructure – including signage, condition
  - Presence of pedestrian generators – schools, playgrounds, senior residences etc..





# Traffic Calming Point Assessment

FOR OFFICE USE ONLY

<b>Location:</b>		<b>Date Compiled:</b>		
<b>Roadway Type:</b>	<input type="checkbox"/> Local Road	<input type="checkbox"/> Collector Road		
<b>Traffic Data</b>				
	<b>Feature</b>	<b>Range</b>	<b>Criteria</b>	<b>Total</b>
1a.	Speed	0 to 35	5 points for every 2km/h that the 85 <sup>th</sup> percentile speed is greater than 10km/h over the speed limit.	
1b.	High Speed	0 to 5	5 points if the minimum of the 5% of daily traffic exceeds posted speed by 20km/h.	
2.	Volume	0 to 20	Local Roadways: 5 points for every 500 ADT. Connector Roadways: 5 points for every 1,000 ADT.	
3.	Short-Cutting Traffic	0 to 15	5 points if there is a presence of 25% or more for every 10% increment above 25%.	
4.	Collisions	0 to 10	1 point for every collision/year over a 3 year period.	
<b>Road Characteristics</b>				
5.	Sidewalks	0 to 10	10 points for no sidewalks with evidence of pedestrian activity, 5 points for sidewalks on only one side.	
6.	Pedestrian Generator	0 to 15	5 points for each nearby pedestrian generator	
<b>Total</b>				
<b>Does the location meet the minimum requirements?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No				
Local Road = Minimum 35 points / Collector Road = Minimum 52 points				





# The Future

- Self Driving Cars?
- Hiring a Transportation Planner





# References

The Centre for Active Transportation

<https://www.tcat.ca/project/saferstreetsnearschools-getting-started/traffic-calming-measures/#:~:text=Traffic%20calming%20is%20the%20deliberate,slow%20traffic%20and%20reduce%20collisions.>

Springwater Township Transportation Plan

<https://www.springwater.ca/en/living-here/resources/Documents/RoadsandSidewalks/Traffic-Calming-Policy-web.pdf>

## **YouTube**

Road Guy Rob

VOX

City Beautiful

USDOTNHTSA





# Questions?

Shona Camirand

Ontario Provincial Police

North Bay OPP

[shona.camirand@opp.ca](mailto:shona.camirand@opp.ca)

