

# **CITY OF CORNER BROOK**

Index	Parking and Traffic		Section	Street	S				
Title	Speed Li	mit		Policy Num	ber	05-02-05	Autho	rity	Council
Approv	al Date	17 Feb 2025	Effective Date	17 Feb 2025	5	Revision	Date		

## PURPOSE

This policy shall provide the City of Corner Brook with a standard process to review and establish speed limits on streets to ensure that appropriate speed limits are set based primarily on the classification, function, and physical characteristics of a street and that the speed limits are established in a consistent manner using an objective and technical method.

## POLICY STATEMENT

Requests to review speed limits will be managed through the process outlined in the City of Corner Brook Transportation Study *Process for Setting Speed Limits*.

## REFERENCES

City of Corner Brook Transportation Study Process for Setting Speed Limits (2024)

## DETAILED ACTION REQUIRED

The *Process for Setting Speed Limits* was developed to establish a process for reviewing speed limits and adopt a set method for establishing speed limits. This method will ensure that appropriate speed limits are set based primarily on the classification, function, and physical characteristics of a street and that the speed limits are established in a consistent manner using an objective and technical method. Available literature, guidelines and best practices were reviewed to guide the development of this process.

The process used to review speed limits includes the following steps:

- 1. Data Collection: Collection of speed and volume data on the street under review.
- 2. Establishing the Recommended Speed Limit: Establishing the recommended speed limit in accordance with the methodology of the Transportation Association of Canada's *Canadian Guidelines for Establishing Posted Speed Limits*.
- 3. **Speed Management Checks:** Checking the recommended posted speed limit against operating speeds and design speed. A review of the applicability of the recommended speed limit may be

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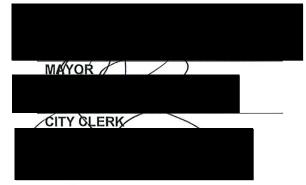
required if the checks determine the recommended speed limit differs significantly from operating speeds and/or design speed.

- 4. **Recommendation to Council:** The review will result in the recommendation of one of the following courses of action for approval by Council:
  - The current speed limit is adequate, no action is required;
  - The current speed limit is adequate, but the operating speed is too high and should be controlled through other measures such as increased enforcement or traffic calming measures;
  - The posted speed limit is too low and should be raised; or
  - The posted speed limit is too high and should be lowered.
- 5. **Implementation:** Upon approval by Council, the City will implement the changes to posted speed limits.
- 6. **Follow Up:** When a new speed limit is implemented, a review of operating speeds will be conducted approximately 6 to 12 months after the new speed limit is posted.

## REFERENCE

Minute: 25-024

IN WITNESS WHEREOF, this policy is sealed with the Common Seal of the City of Corner Brook.





# TRANSPORTATION STUDY

**Process for Setting Speed Limits** 

Final Report 05 December 2024

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Project No.: 242002

Project Name: Corner Brook Transportation Study

#### Prepared for:

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0	05 April 2024	Draft Report
1	05 December 2024	Final Report

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## 1. INTRODUCTION

Neighbourhood traffic issues, such as speeding, are a common concern for the residents, staff, and Council of the of City of Corner Brook ("City"). Consequently, the City frequently receives requests to post lower speed limits in response to concerns about speeding. Such requests are due, in part, to the incorrect assumption that there is a set relationship between the posted speed limit and actual operating speed. It is commonly assumed that most drivers will only drive 10 to 15 km/h over the posted speed limit due to the possibility of receiving a speeding ticket. The logic follows that a lower posted speed limit will also lower operating speeds.

However, research has concluded that drivers choose their speed primarily on the physical characteristics of the street they are driving on and the visual environment. The posted speed limit, in most cases, plays only a minor role in actual operating speeds and simply reducing the posted speed limit without changing the physical characteristics of a street is typically not an effective method to reduce speeds.

As part of the *Transportation Study* the City is developing the tools and policies required to better manage its transportation network. This includes the development of a *Speed Limits Policy* to provide guidelines for establishing and reviewing speed limits on streets in the City of Corner Brook.

The intent of this document, the *Process for Setting Speed Limits*, is to supplement the *Speed Limits Policy* and to establish a process for reviewing speed limits and adopt a set method for establishing speed limits. This method will ensure that appropriate speed limits are set based primarily on the classification, function, and physical characteristics of a street and that the speed limits are established in a consistent manner using an objective and technical method.

Speed limits are the central piece in any overall speed management policy. Speed limits provide drivers with a primary source of speed information in addition to the physical characteristic of the street and form the basis for legal enforcement. However, because of the relationship between the physical characteristics of a street and operating speed, the *Process for Setting Speed Limits* needs to be considered alongside other tools for speed management including the *Process for Traffic Calming* which guides the process for the implementation of physical measures to reduce speeds.

## 1.1. Definitions

For the purpose of this document, unless otherwise stated, the following definitions apply:

- Arterial: a street with the primary function of moving traffic.
- City: The City of Corner Brook.
- Collector: a street on which traffic movement and land access are of similar importance.
- Council: City Council for the City of Corner Brook.
- Design Speed: The speed selected for purposes of design to establish the appropriate geometric features of the street so that that drivers can travel safely at that speed under ideal conditions.
- Local: a street with the primary function of providing land access.

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- Operating Speed/85<sup>th</sup> Percentile Speed: The speed at, or below which 85 precent of vehicle on a street are travelling. Considered the operating speed of a street.
- **Posted Speed Limit:** The maximum speed prescribed for motor vehicles on a street by Municipal regulations or the *Highway Traffic Act* and signed accordingly.
- RNC: Royal Newfoundland Constabulary
- School or Playground Zone: A section of street adjacent to a school or playground that is denoted by school area or playground area signage and a reduced speed limit sign.
- Speed Zone: A section of street with a single posted speed limit throughout its length.
- Statutory Speed Limit: the maximum speed prescribed for motor vehicles on a street by Municipal regulations or the *Highway Traffic Act* when there is no posted speed limit.
- Street Classification: The classification of a street by function in accordance with the City's street classification.
- TAC: Transportation Association of Canada

#### 2. STATUTORY SPEED LIMITS

Statutory speed limits are maximum speed limits for certain categories of streets established by Municipal regulations or Provincial law. Statutory speed limits are always in effect even when the road authority does not post them. The Newfoundland and Labrador *Highway Traffic Act*<sup>1</sup> prescribes the following statutory speed limits:

Except where a higher or lower speed limit is prescribed by this Act or the regulations or by a traffic sign prescribed by the Minister of Works, Services and Transportation or by regulations made by a council, a driver shall not drive a vehicle at a speed greater than:

- (a) 100 kilometres an hour on paved portions of the Trans-Canada Highway;
- (b) 80 kilometres an hour on paved highways other than the Trans-Canada Highway;
- (c) 60 kilometres an hour on gravel highways; or
- (d) 50 kilometres an hour
- (i) through settlements,
- (ii) [Rep. by 2013 c15 s2]
- (iii) when passing a church, theatre or other place of public assembly or its grounds while people are entering or leaving it.

The City of Corner Brook Traffic Regulations<sup>2</sup> prescribes the following statutory speed limits:

No person shall drive any motor vehicle at a speed exceeding 50 kilometres per hour within the limits of the City except in areas otherwise designated by Council.

In the absence of a posted speed limit sign indicating a higher or lower speed limit, the statutory speed limit of 50 km/h applies on any street within the City.

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<sup>&</sup>lt;sup>1</sup> Highway Traffic Act, RSNL1990, c. H-3, as amended.

https://www.assembly.nl.ca/legislation/sr/statutes/h03.htm

<sup>&</sup>lt;sup>2</sup> City of Corner Brook Traffic Regulations, 2008, as amended



## 3. REVIEW OF SPEED LIMITS

The applicability of a speed limit may change over time, particularly in areas where land development is active and expanding. A following program to conduct regular reviews of posted speed limits will be adopted by the City.

## 3.1. Regular Reviews

Speed limits should be reviewed every three to five years. The City may use a staggered approach, reviewing speed limits on a portion of City streets on an annual basis. The extent and scope of the review may be dependent on the funding allocated by Council but must ensure that all streets within the City are reviewed within a five year period. Speed limits will be reviewed in accordance with the procedure outlined in Section 4.

If a staggered approach is used, recent speed data, input from the RNC, and/or requests for speed limit changes or complaints relating to speeding received by residents could be used to help prioritize which streets should be considered for review. Existing operating speed ( $85^{th}$  percentile speed) data could be compared to the posted or statutory speed limit to identify streets where a significant discrepancy exists between the speed limit and the operating speed. Streets with a difference exceeding ±10 km/h should be prioritized for review followed by within ±10 km/h.

## 3.2. Triggers for Unscheduled Reviews

City staff may use certain triggers to identify streets that may require more frequent speed limit reviews. Examples include significant changes in: land use, traffic operations, roadway geometry, and/or speed-related collisions. Regular liaison with the RNC is also recommended to identify streets that may require a speed limit review.

## 3.3. Requests by Members of the Public to Change Speed Limits

Inappropriate speed limits are quite noticeable to the police, street users, and residents and they are likely to be brought to the attention of the City.

Requests by residents to change the posted speed limit on a City street should be referred to the regular review unless City staff determines an unscheduled speed limit review is warranted based on the triggers noted in Section 3.2. The results and recommendations of the annual or unscheduled review will be communicated to the resident who made the request.

If the last speed limit review for the requested street determined that the speed limit was adequate, the resident should be informed that neighbourhood traffic issues may be better addressed through the *Process for Traffic Calming*.

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## 4. PROCEDURE FOR ESTABLISHING SPEED LIMITS

#### 4.1. Data Collection

Speed data will be collected on the streets identified for review. Multiple measurements may be required if:

- More than one speed zone exists on the street; or
- Only one speed zone exists but the street has segments with varying land use, function, horizontal and vertical geometry or cross section.

24-hour speed data will be collected over a period of 7 consecutive days.

## 4.2. Establishing the Recommended Speed Limits

Recommended speed limits will be established in accordance with the TAC *Canadian Guidelines for Establishing Posted Speed Limits*<sup>3</sup>. The guidelines ensure that the recommended posted speed limit is a function of the classification of the street, its function, physical characteristics and engineering factors that influence the level of risk.

It should be noted that these guidelines do not address establishing speed limits in school or playground zones, variable speed limits or work zone treatments. Refer to Section 5 for guidelines for establishing speed limits in school or playground zones.

The recommended speed limit for a street will be established using the Automated Speed Limit Guidelines Spreadsheet include in the TAC guidelines. The assessment requires the input the physical characteristics of the street and the selection of risks associated for evaluation criteria relating to the physical and road-user characteristics.

Table 1 summarizes the required input for each characteristic or criteria and the information required to determine risks.

Characteristic/Criteria	Input and Information Required to Determine Risks
Road classification	local, collector, arterial, highway, expressway or freeway
Land use	urban or rural
Median separation	divided or undivided
Road hierarchy	major or minor (not applicable for local, expressway and freeway)
Number of lanes	1 lane or 2+ lanes per direction
Length of corridor	Length in metres
Design speed	(not applicable for local, collector and arterial)
Current posted speed	Posted speed limit (for information only)
Operating speed	85 <sup>th</sup> percentile speed (for information only)
Horizontal alignment	Risk level based on number of curves per kilometre
Vertical alignment	Risk level based on grades
Average lane width	Risk level based on narrow, moderate or wide lane width for the classification
Roadside hazards	Risk level based on the number of hazards per kilometre and the presence of continuous hazards

Table 1: Information Re	quired to Establish	the Recommended Speed Limit

<sup>3</sup> Transportation Association of Canada. Canadian Guidelines for Establishing Posted Speed Limits. December 2009.

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Characteristic/Criteria	Input and Information Required to Determine Risks
Pedestrian exposure	Risk level based on demand, the presence of pedestrian facilities and
	physical separation from roadway
Cyclist exposure	Risk level based on demand and the presence of cycling facilities
Pavement surface	Risk level based on surface type (paved or unpaved) and condition
Intersection density	The number of intersections with public streets by control type, the number of
-	rail crossings and pedestrian activated crosswalk
Access density:	The number of intersections with private access driveways
Interchange density	The number of interchanges along the corridor
On-street parking	Risk level based on parking permission/restrictions and demand

The recommended speed limit results from the assessment will typically fall within the recommended speed limits outlined in Table 1. The lowest recommended speed limit considered in the TAC guidelines is 40 km/h. Speed limits on City streets, exclusive of school or playground zones and temporary construction zones, will be set between 40 km/h and 80 km/h in increments of 10 km/h.

#### Table 2: Typical Speed Limit Range by Street Classification

Street Classification	Typical Speed Limits
Arterial	50km/h to 80 km/h
Collector	50 km/h or 60 km/h
Local	40 km/h or 50 km/h

#### 4.3. Speed Management Checks

Once a recommended posted speed limit is determined, it will be checked against operating speeds and design speed (when this value is known).

#### 4.3.1. Check for Operating Speed

The recommended speed limit determined according to the function and physical characteristics of a street should be relatively consistent with the 85<sup>th</sup> percentile speed under relatively ideal conditions. This would indicate that the function of the street and the environment are well understood by drivers. The recommended speed limit will be checked against the operating speed.

For a speed limit of 70 km/h or less, the 85<sup>th</sup> percentile under relatively ideal conditions should be within  $\pm 10$  km/h of the recommended speed limit. A difference exceeding  $\pm 10$  km/h is an indicating that the drivers' perception of the street is different than what was accounted for when establishing the speed limit. Potential causes for this include:

- The street is being used for a different function than its original intention (i.e. a local street is used by through traffic for shortcutting purposes);
- The street has been overdesigned compared to its function and surrounding land use; or
- The function of the street and is surrounding land uses are inconsistent.

Further investigation is required to determine the cause and find engineering solutions. The subject street should be considered for assessment under the *Process for Traffic Calming*.

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## 4.3.2. Check for Design Speed

The design speed should always be higher or equal to the recommended posted speed limit. For arterial, collector and local streets, the recommended speed limit is from the guidelines is independent of the design speed. The recommended speed limit should be checked against the design speed when this value is known.

## 4.3.3. Adjusting the Recommended Speed Limit

When the recommended speed limit differs from the operating speeds, design speed or the statutory speed limit a review of the applicability of the recommended speed limit may be required. Sound engineering judgment will be used to determine the appropriate speed limit and documented.

The speed limit may be set below the recommended speed limit for a street when:

- · Constrained by the physical characteristics of the street, such as the design speed;
- Required for heightened safety in sensitive areas such as school and playground zone (Refer to Section 5 for guidance);
- The 85th percentile speeds are significantly lower than the recommended speed; or
- There is a significantly higher than normal frequency of, or severity of, collisions attributable to excessive speeds.

## 4.4. Recommendation to Council

Once the recommended speed limit is confirmed through the speed management checks. The recommended speed limits will be compared to the existing speed limits on each street and the review will recommend one of the following courses of action for each street:

- 1. The current speed limit is adequate, no action is required;
- The current speed limit is adequate, but the operating speed is too high and should be controlled through other measures such as increased enforcement or traffic calming measures;
- 3. The posted speed limit is too low and should be raised; or
- 4. The posted speed limit is too high and should be lowered.

The results and recommendations of the review will be submitted to Council for consideration and approval. In situations, where a speed limit change has been recommended, the residents fronting onto the affected street or street section will be notified of the recommendations.

## 4.5. Implementation

Upon approval by Council, the City will implement the changes to posted speed limits. Speed zones will be signed in accordance with the TAC *Manual of Uniform Traffic Devices for Canada*<sup>4</sup>.

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<sup>&</sup>lt;sup>4</sup> Transportation Association of Canada. (2021). *Manual of Uniform Traffic Devices for Canada*, Ottawa, ON.



## 4.6. Follow-Up

When a new speed limit is implemented, a review of operating speeds will be conducted approximately 6 to 12 months after the new speed limit is posted. Speed data will be collected to determine the operating speed post-implementation. The 85<sup>th</sup> percentile speed will be compared to the new speed limit and the original speed data to determine any changes and confirm that the new speed limit is adequate.

Any feedback, positive or negative, received from the public following the implementation of the new speed limit should be documented and reviewed at this stage.

## 5. SCHOOL AND PLAGROUND ZONES

## 5.1. Establishing School and Playground Zones

School and playground zones will be reviewed and established according to the TAC School and Playground Areas and Zones: Guidelines for Application and Implementation<sup>5</sup>. A school or playground zone is a section of street adjacent to a school or playground that is denoted by school area or playground area signage and a reduced speed limit sign. A school or playground area is simply denoted by signage and does not have a reduced speed limit. School zones and areas are established based on the following factors:

- School type;
- Street classification;
- Fencing characteristics;
- Property line separation;
- Location of school entrance; and
- Location of sidewalks.

The maximum speed limit will be reduced on segments of streets established as school and playground zones. For a school or playground zone on a street with a posted speed limit of 40 km/h or 50 km/h, a maximum speed limit of 30 km/h will be implemented in the school or playground zone.

All school zones will be signed in accordance with the School and Playground Areas and Zones: Guidelines for Application and Implementation and the TAC Manual of Uniform Traffic Devices for Canada.

<sup>5</sup> Transportation Association of Canada. (2009). School and Playground Areas and Zones: Guidelines for Application and Implementation, Ottawa, ON.

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