POLICY TITLE	Speed Limit Policy
CATEGORY	Administration
POLICY NUMBER	
DEPARTMENT	Community Development
POLICY AUTHOR	Engineering and Transportation Services
POLICY TYPE	Departmental Policy
APPROVED BY	Department Head
EFFECTIVE DATE	03/28/2023
REVIEW DATE	03/23/2028

POLICY STATEMENT

One of the many ways to create a safer road environment is to provide credible posted speed limits that match the expectation of drivers for a given roadway and its surrounding area. Recognizing that speed limits have considerable influence on road safety, this policy has been developed to provide a systematic, consistent and repeatable process for establishing speed limits on City owned roads within urban and rural areas as well as in school zones.

PURPOSE

This policy provides a framework for the consistent determination of posted speed limits along all City of Cambridge roadways, in addition to the statutory speed limits prescribed in section 128 of the Ontario *Highway Traffic Act, R.S.O. 1990, c. H.8* (HTA).

AUTHORITY

Section 128 (Rate of Speed) of the Ontario *Highway Traffic Act, R.S.O. 1990, c. H.8* (HTA) prescribes the default speed limit in rural areas as 80 km/h and in built-up urban areas as 50 km/h. In 2017 the Province amended section 128 of the HTA allowing municipalities to establish speed limits lower than 50 km/h within designated areas of the municipality.

SCOPE

This policy applies to all City owned roads.

POLICY

Designated Areas and Zones:

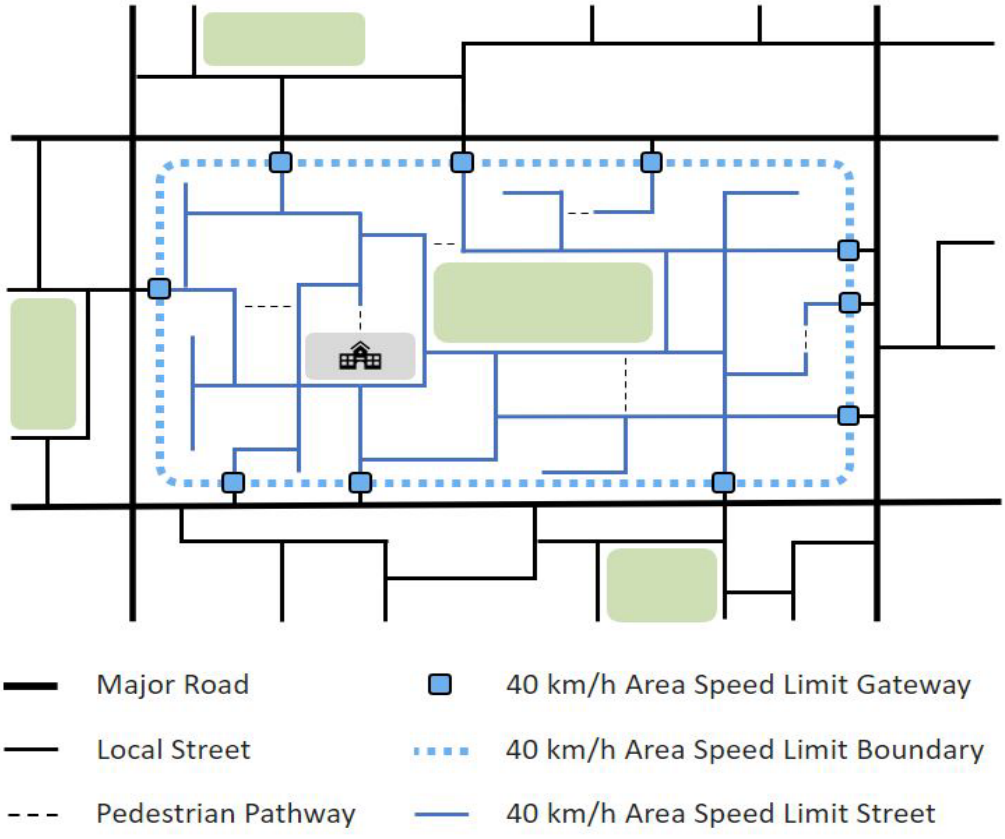
Neighbourhood Areas

The approval of Bill 65, Safer School Zone Act, amended the Highway Traffic Act (HTA) to permit municipalities to reduce speed limits below 50 km/h, through municipal by-law, by designating neighbourhoods for reduced speed limits.

Neighbourhood Area speed limits establish a reduced speed limit for an entire neighbourhood rather than reducing speed limits by individual streets. Designated Neighbourhood Areas are bounded by specialized speed limit signage in accordance with the HTA and Ontario Traffic Manual.

City-wide neighbourhood area speed limit reductions on local and collector roadways will be established on a neighbourhood by neighbourhood basis. The speed limit for Neighbourhood Areas shall be reduced to 40 km/h for all roads within that designated area, unless posted otherwise. These areas shall have gateway speed limit signage installed at all entry and exit points to and from the bordering main roads. This signage includes 'AREA' and 'BEGINS' or 'ENDS' tabs below the posted speed limit sign. Neighbourhood Areas speed limit reductions will not be applicable on arterial and major collector roads with the primary function of traffic movement and limited land access.

The conceptual map below illustrates how a Neighbourhood Area would be applied.



School and Playground Areas and Zones

School and playground areas and zones shall be determined based on the methodology outlined in the Transportation Association of Canada (TAC) “School and Playground Areas and Zones: Guidelines for Application and Implementation” with the exception that roadways along the frontage of a school shall be designated as a School Zone with school area signage and a posted speed limit of 30km/h, extending 150m in either direction beyond the limits of the land used for the purposes of a school. If a school abuts more than one City street, the TAC methodology shall be used to assess these streets for a school area or zone. If it is determined that a Playground Zone is to be established, it shall be posted with a maximum speed limit of 40 km/h.

While posted speed limits adjacent to secondary schools (grades 9 to 12) will be considered, the initial focus of this policy is to implement reduced speed zones adjacent to primary schools (Junior Kindergarten to grade 8) where young children are present.

The TAC methodology provides a consistent approach through an objective assessment based on a set of standard evaluation criteria. Detailed descriptions of the following six (6) evaluation criteria are provided in Appendix A:

1. School/playground type
2. Roadway classification
3. Type of fencing
4. Property line separation
5. Number of entrances
6. Number of sidewalks

A School Zone is as a section of roadway adjacent to land used for the purposes of a school with a reduced speed limit of 30km/h, extending 150 metres in either direction beyond the limits of the land used for the purposes of a school, signed in accordance with the HTA and Ontario Traffic Manual.

A School Area is a section of roadway adjacent to land used for the purposes of a school that is denoted only by school area signage extending up to a maximum of 150 metres in either direction beyond the limits of the land used for the purposes of a school, signed in accordance with the Ontario Traffic Manual.

A Playground Zone is a section of roadway adjacent to land used for the purposes of a playground that is denoted by playground area signage with a posted speed limit of 40km/h, extending the minimum required stopping distance in either direction beyond the limits of the land used for the purposes of a playground, signed in accordance with the Ontario Traffic Manual.

A Playground Area is as a section of roadway adjacent to land used for the purposes of a playground that is denoted only by playground area signage, extending the minimum required stopping distance in either direction beyond the limits of the land used for the purposes of a playground.

All Other Roadways (Non-Designated):

The methodology outlined in the Transportation Association of Canada (TAC) "Canadian Guidelines for Establishing Posted Speed Limits" will be used to assess and establish speed limits for all other roadways owned by the City. These guidelines provide a systematic, consistent and repeatable process for establishing speed limits on City owned roads within urban and rural areas through an objective assessment based on engineering factors. The risks associated with the engineering factors determine the appropriate posted speed limit. Descriptions of the following nine (9) engineering factors used in evaluating the posted speed limit of a roadway are provided in Appendix B:

1. Horizontal alignment
2. Vertical alignment
3. Average lane width
4. Roadside hazards
5. Pedestrian exposure
6. Cyclist exposure
7. Pavement surface
8. Number of intersections with public roads and private access driveways
9. On-street parking

Prior to implementing speed limit reductions, the City will consider various traffic calming measures such as, seasonal traffic calming signs, driver feedback boards, curb extensions, raised intersections, and speed cushions in order to help encourage improved driver behaviour to reduce vehicular speeds.

POLICY COMMUNICATION

The policy shall be made available to the public through the City website and upon request.

RELATED PROCEDURES

There are no related procedures

RELATED DOCUMENTS/LEGISLATION

Section 128 (Rates of Speed) of the Ontario *Highway Traffic Act, R.S.O. 1990, c. H.8* (HTA)

Transportation Association of Canada “Canadian Guidelines for Establishing Posted Speed Limits”

Transportation Association of Canada “School and Playground Areas and Zones: Guidelines for Application and Implementation”

Ontario Traffic Manual, Book 5, Regulatory Signs

ATTACHMENTS

1. Appendix A – Evaluation Criteria “School and Playground Areas and Zones: Guidelines for Application and Implementation” Transportation Association of Canada (TAC)

2. Appendix B – Evaluation Criteria “Canadian Guidelines for Establishing Posted Speed Limits” Transportation Association of Canada (TAC)

APPENDIX A

Evaluation Criteria

"School and Playground Areas and Zones: Guidelines for Application and Implementation" Transportation Association of Canada (TAC)

School Zones and Areas

1. School Type – Elementary School, Middle/Junior High School, or High School

    - Children of elementary school age, when without parental supervision, are typically considered to be the most vulnerable due to their limited abilities to understand and anticipate vehicular traffic movements and their tendency to accidentally enter the roadway

    - Children of middle age and high school age are typically better able to understand traffic and control their own movements

2. Road Classification – Local, Minor Collector, Major Collector or Arterial

    - Arterial roads are typically higher volume roads, with primary function of traffic movement. Arterial roads are usually designed for speeds

    - Minor and major collector roads typically have less volume and lower design speeds than arterial roads. Land access and traffic movement are of equal importance.

    - Local roads are lower volume roads and designed for lower speeds. Traffic movement is secondary to land access.

3. Fencing – Fully traversable, partially traversable or non-traversable

    - Fencing acts as a physical barrier that can prevent errant pedestrian movements onto the roadway however, the effectiveness depends on how traversable it is.

4. Property Line Separation – Abuts Roadway, Less than 50 meters, Greater than 50 metres

    - A school typically abuts at least one roadway and if located near an intersection may also be located close to an intersecting roadway.

    - Separation from property line influences the likelihood of children entering a roadway, particularly in the absence of fencing.

5. School Entrance – Main, Secondary, None

    - Where a school has multiple access points from the road, the activity is typically concentrated at one entrance, referred to as the main entrance
    - Secondary entrances typically have far less activity.

6. Location of Sidewalks – None (or non-school side), School side, both sides

    - Sidewalks provide a safe area for children between the school property and surrounding sidewalk network.

Playground Zones and Areas

1. Playground Type – Field with children playground, Frontage, Indoor/Enclosed

    - Playground type reflects the likely level of utilization of the playground facility and its exposure to the roadway.
    - Playgrounds that have higher capacity, that are part of a field and that are not enclosed are more likely to warrant a reduced speed limit.

2. Road Classification – Local, Minor Collector, Major Collector or Arterial

    - Arterial roads are typically higher volume roads, with primary function of traffic movement. Arterial roads are usually designed for speeds
    - Minor and major collector roads typically have less volume and lower design speeds than arterial roads. Land access and traffic movement are of equal importance.
    - Local roads are lower volume roads and designed for lower speeds. Traffic movement is secondary to land access.

3. Fencing – Fully traversable, partially traversable or non-traversable

    - Fencing acts as a physical barrier that can prevent errant pedestrian movements onto the roadway however, the effectiveness depends on how traversable it is.

4. Property Line Separation – Abuts Roadway, Less than 50 meters, Greater than 50 metres

    - A playground typically abuts at least one roadway and if located near an intersection may also be located close to an intersecting roadway.
    - Separation from property line influences the likelihood of children entering a roadway, particularly in the absence of fencing.

5. Playground Entrance – Main, Secondary, None

    - Where a playground has multiple access points from the road, the activity is typically concentrated at one entrance, referred to as the main entrance
    - Secondary entrances typically have far less activity.

6. Location of Sidewalks – None (or non-playground side), Playground side, both sides

    - Sidewalks provide a safe area for children between the playground property and surrounding sidewalk network.

APPENDIX B

Evaluation Criteria

"Canadian Guidelines for Establishing Posted Speed Limits" Transportation Association of Canada (TAC)

1. Horizontal Alignment

- Driving risks are increased by horizontal curves hence the measure of horizontal alignment is the number of curves per kilometre.
- A curve is considered to be any part of the roadway which requires steering.

For urban areas:

Risk Level	Description
Higher	More than 4 curves per kilometre
Medium	2 to 4 curves per kilometre
Lower	Less than 2 curves per kilometre

For rural areas:

Risk Level	Description
Higher	More than 6 curves per kilometre
Medium	3 to 6 curves per kilometre
Lower	Less than 3 curves per kilometre

2. Vertical Alignment

- A road with steep grades can decrease sight distance and create a higher risk for motorists than a flat road.
- Uphill grades increase passing maneuvers and motorist frustration, while downhill grades increase speeds and braking distances.

For urban and rural land areas:

Risk Level	Description
Higher	Frequent steep grades (6% or more on 50% of the section or more)
Medium	Some steep grades (4% or more on 50% of the section or more)
Lower	Generally moderate grades or flat

3. Average Lane Width

- Motorists typically drive at higher speeds on wider roadways due to fewer constraints.
- Narrower lanes allow for less maneuverability which causes motorists to travel at slower speeds in order to avoid adjacent or oncoming traffic and the curb or shoulder of the road.

For urban and rural areas:

Risk Level	Description
Higher	Narrow – Available lane width is narrow compared to typical roadways with the same road classification
Medium	Moderate – Available lane width is similar to typical roadways with the same road classification
Lower	Wide – available lane width is wide compared to typical roadways with the same road classification

4. Roadside Hazards

- Hazards are defined as non-breakaway fixed objects or non-recoverable risks such as side slopes, rock faces and water hazards.
- Roadways with multiple hazards located close to the driving lane could justify consideration for a reduced speed limit.

For urban areas:

Risk Level	Description
Higher	10 or more hazards per kilometre or continuous hazards on more than 50% of the segment length; on one or both sides
Medium	5 to 9 hazards per kilometre or continuous hazards on 25 to 50% of the segment length, on one or both sides
Lower	Less than 5 hazards per kilometre

For rural areas:

Risk Level	Description
Higher	5 or more hazards per kilometre or continuous hazards on more than 50% of the segment length; on one or both sides
Medium	5 to 9 hazards per kilometre or continuous hazards on 25 to 50% of the segment length, on one or both sides
Lower	Less than 2 hazards per kilometre

5. Pedestrian Exposure

- The presence of pedestrians in combination with the facility provided are used to measure the risk on a roadway.
- A roadway with high pedestrian volumes but no sidewalks or shoulders could justify consideration for a reduced speed limit.

For urban and rural areas:

Risk Level	Description
Higher	Roadway is used by pedestrians and no

Risk Level	Description
	pedestrian facilities are provided
Medium	Roadway is used by pedestrians and a shoulder or trail adjacent to the roadway and at the same elevation as the roadway is provided
Lower	Roadway is used by pedestrians and physically separated pedestrian facilities (sidewalks; trails away from the road) are available; or, roadway has negligible pedestrian demand
N/A (no risk)	Pedestrians are legally prohibited on the roadway

6. Cyclist Exposure

- The presence of cyclists in combination with the facility provided are used to measure the risk on a roadway.
- A roadway with high cyclist volumes but no designated cycling lanes or wide curb lanes might justify consideration for a reduced speed limit.

For urban and rural areas:

Risk Level	Description
Higher	Roadway is used by cyclists and no road space is allocated to bikes
Medium	Roadway is used by cyclists and wide curb lane or paved shoulder is provided
Lower	Roadway is used by cyclists and a designated bike lane is provided; or, roadway

Risk Level	Description
	is used by cyclists and no road space is allocated to bikes but roadway has very low traffic volumes; or the roadway has negligible cyclist demand.
N/A (no risk)	Cyclists are legally prohibited on the roadway

7. Pavement Surface

- Rough pavement surface conditions can affect motorist maneuverability which results in greater risks at high speeds.

For urban and rural areas:

Risk Level	Description
Higher	Poor or unpaved / gravel
Medium	Fair or rough pavement (significant sections with pot holes, rutting, large cracks, etc)
Lower	Good or smooth

8. Number of Intersections with Public Roads & Private Access Driveways

- A high number of intersections with public roads and private driveways results in increased potential conflicts.
- Consideration for a reduced speed limit could be justified where motorists might encounter a high number of conflicts with cross traffic and left-turning vehicles.
- The required input for the spreadsheet includes the actual number of intersecting public roads or private driveways per segment length.

9. On-Street Parking

- On-street parking may create conflicts between moving traffic and parked vehicles.
- The risk associated with on-street parking can be influenced by time

restrictions.

- Consideration for a reduced speed limit could be justified when parking is allowed all day on both or one sides of the roadway.

For urban and rural land uses:

Risk Level	Description
Higher	Parking permitted all day on one or both sides of the roadway
Medium	Parking permitted during part of the day on one or both sides of the roadway
Lower	Parking is permitted but rarely if ever actually utilized
N/A (no risk)	Parking is prohibited