



# Traffic Calming Policy Preparation

TOWN OF ORANGEVILLE

# Outline

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## ITEM 1

- What is Traffic Calming
- How Traffic Calming Relates to the Town's Vision and Goals?
  - How Traffic Calming will be implemented?

## ITEM 2

What are the types of Traffic Calming Measures suitable for the Town of Orangeville

## ITEM 3

What is the process that the Town will follow for the Implementation of Traffic Calming Measures

## ITEM 4

Opportunities for comments and feedback



## Traffic Calming Policy Preparation

WHAT IS TRAFFIC CALMING?

# What is Traffic Calming?

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## DEFINITION

Traffic Calming can be defined as the implementation of safety measures or programs to reduce speed and encourage safe driving behaviour for the conform of all road users.

## WHEN IS TRAFFIC CALMING REQUIRED?

Traffic calming may be necessary when the amount of vehicular traffic, speed levels, and/or observed driver behaviour does not correspond with the type of roadway, the context of the surrounding areas, or the activities of other roadway users.

## LIMITATIONS

Although traffic calming can address speed-related traffic concerns at a street or block level, it is most effective when considered as part of a broader, integrated approach to managing transportation-related issues within neighbourhoods and may not be the most appropriate solution for all issues.

# How Traffic Calming Relates to the Town's Vision and Goals?

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## OFFICIAL PLAN GOALS AND OBJECTIVES

- To provide a transportation network for the safe and efficient movement of people and goods within and through the Municipality.
- To encourage a reduction in the dependence on the use of motor vehicles and encourage active transportation alternatives through the introduction or extension of such things as bicycle lanes, multi-purpose trails, sidewalks and public transit opportunities that provide safe, comfortable travel opportunities within existing communities and new neighbourhoods.

## TRAFFIC CALMING

Although traffic calming is not explicitly identified as part of those goals, it is undeniable that implementation of traffic calming measures can support a safer environment within existing communities and new neighbourhoods.

# How Traffic Calming will be Implemented?

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## TRAFFIC CALMING POLICY AND IMPLEMENTATION PROCESS

- The Town is developing a Traffic Calming Policy and Implementation Process that will provide an established approach to determine if traffic calming at any given location is warranted and if so, to assist with the selection of the most appropriate traffic calming measure.
- The policy will identify the type of traffic calming measures that can be used in roads under the Town's jurisdiction - where deemed appropriate, to improve safety for all road users on Orangeville streets and not adversely effect operational costs and the services provided by Fire and Emergency Services, OPP, and Transit.



## Traffic Calming Policy Preparation

SUITABLE TRAFFIC CALMING  
MEASURES

# Suitable Traffic Calming Measures

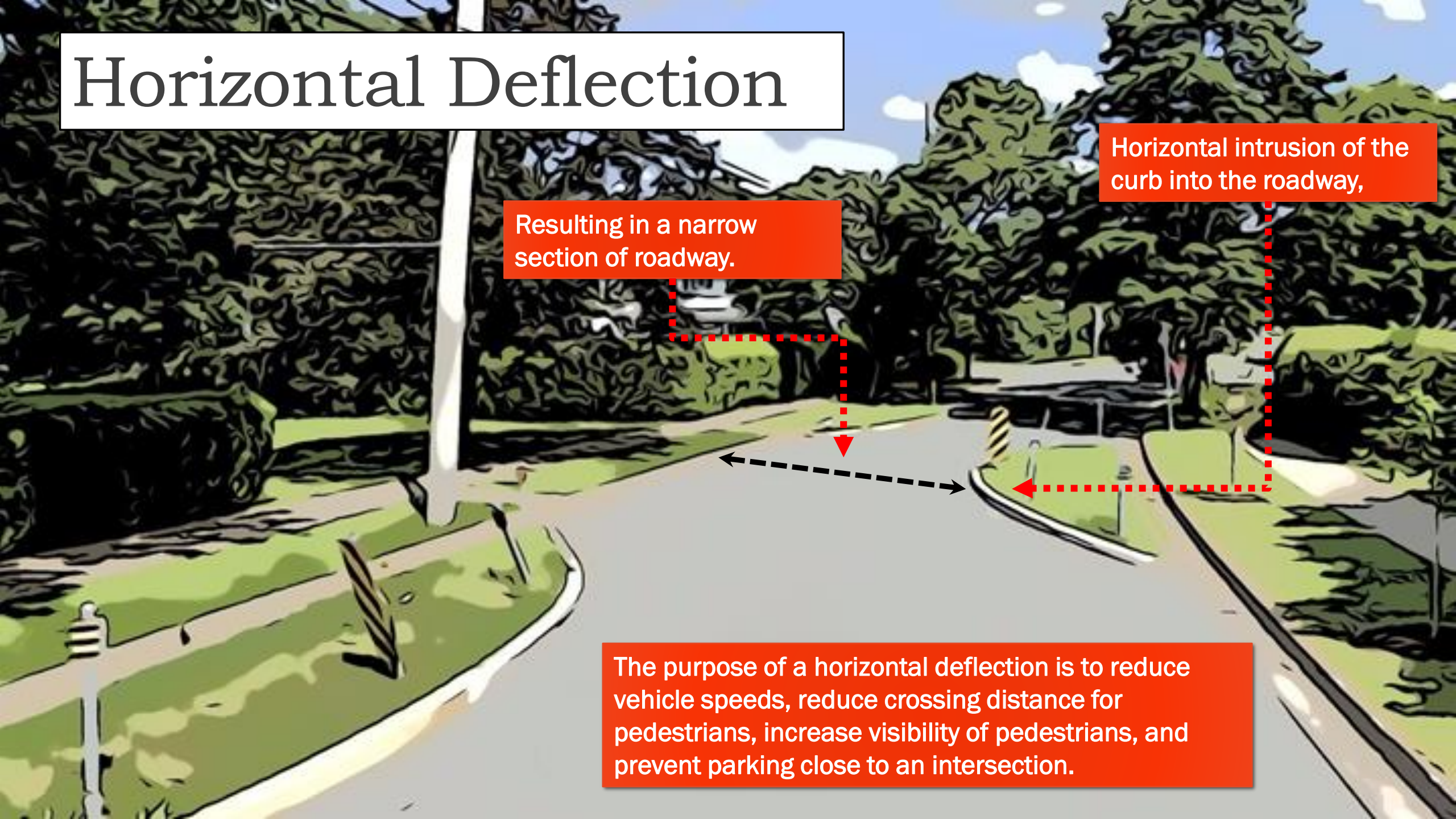
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## TRAFFIC CALMING POLICY

- Since traffic calming measures should not be applied to all types of roadways, for a variety of operational and public safety reasons, specific installation criteria to be developed as part of the policy will always be met and adhered to.
- Traffic calming involving physical treatments which include horizontal deflection, roadway narrowing (except for lane narrowing through pavement markings), and surface treatments will be limited to installation on roadways that are proven by a traffic study and evaluation to have significant aggressive driving problems and must meet all the other criteria as set out in this policy.
- Traffic calming measures that involve vertical alignment shifts will not be permitted on roads under the jurisdiction of the Town of Orangeville.



# Horizontal Deflection



Resulting in a narrow section of roadway.

Horizontal intrusion of the curb into the roadway,

The purpose of a horizontal deflection is to reduce vehicle speeds, reduce crossing distance for pedestrians, increase visibility of pedestrians, and prevent parking close to an intersection.

# Horizontal Deflection

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Chicane



Curb Radius Reduction



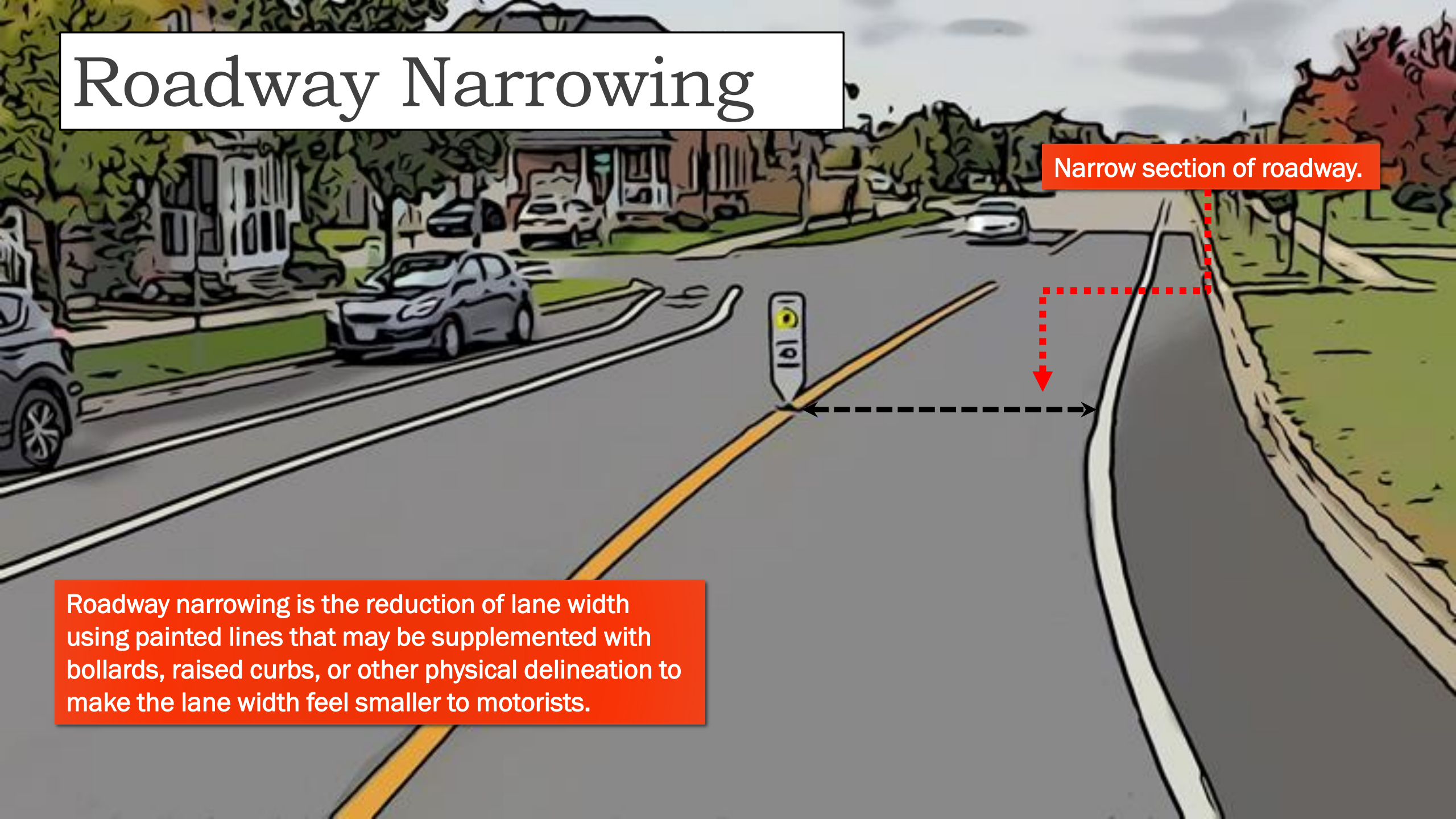
Lateral Shift

For illustration purposes only (Source: Traffic Calming Policy and Guidelines, 2021 – City of Kingston)

# Roadway Narrowing

Narrow section of roadway.

Roadway narrowing is the reduction of lane width using painted lines that may be supplemented with bollards, raised curbs, or other physical delineation to make the lane width feel smaller to motorists.

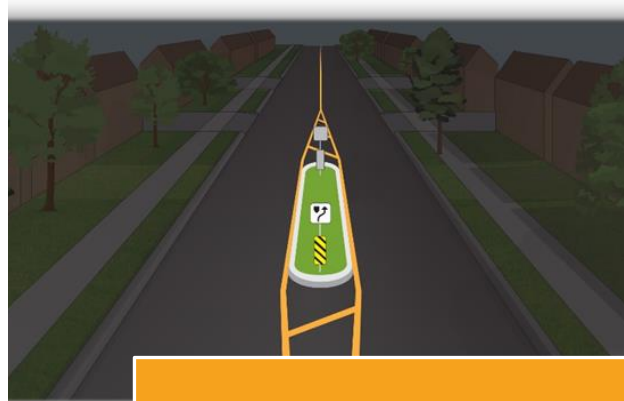


# Roadway Narrowing

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Lane Narrowing



Raised Median Island



Vertical Centreline

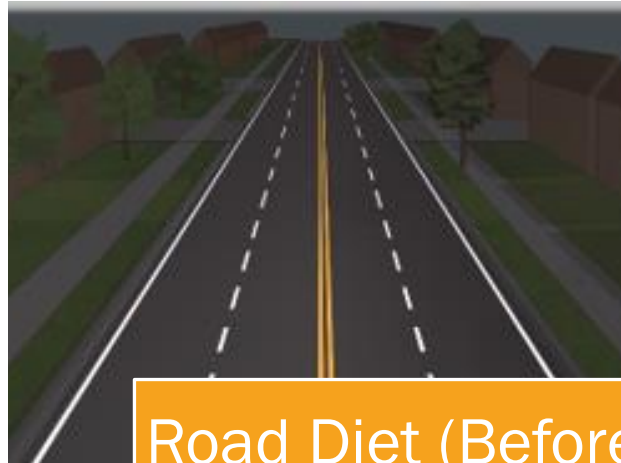
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# Roadway Narrowing

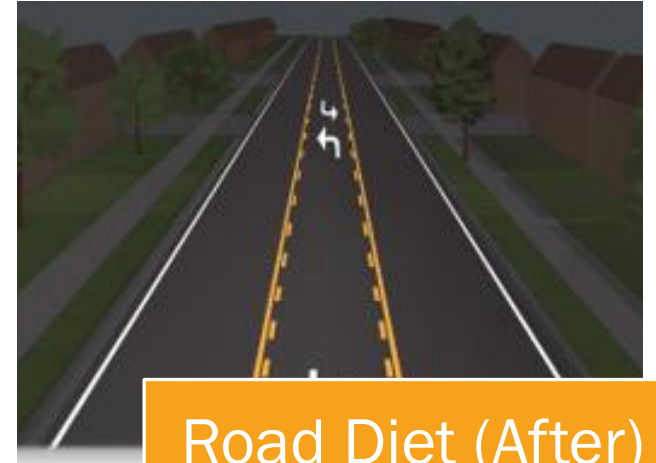
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On-Street Parking



Road Diet (Before)



Road Diet (After)

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# Pavement Markings

A perspective view of a road with white pavement markings. A red dashed arrow points to a specific marking on the right side of the road.

This is done to alert the driver of the need to reduce speed.

These are pavement markings painted along the travel direction of the roadway. They can be spaced close together or painted thinner as distance increases to create the illusion that a vehicle's speed is increasing, as well as to inform the driver regarding the presence of specific locations (i.e. schools)

# Pavement Markings

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Converging Chevrons



Dragon's Teeth

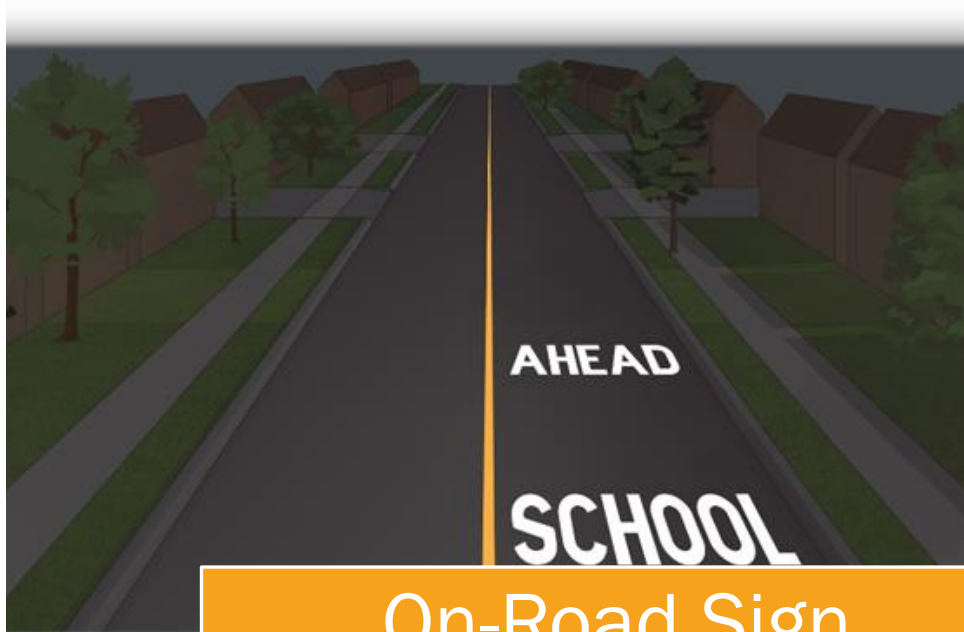


Full Lane Traverse Bars

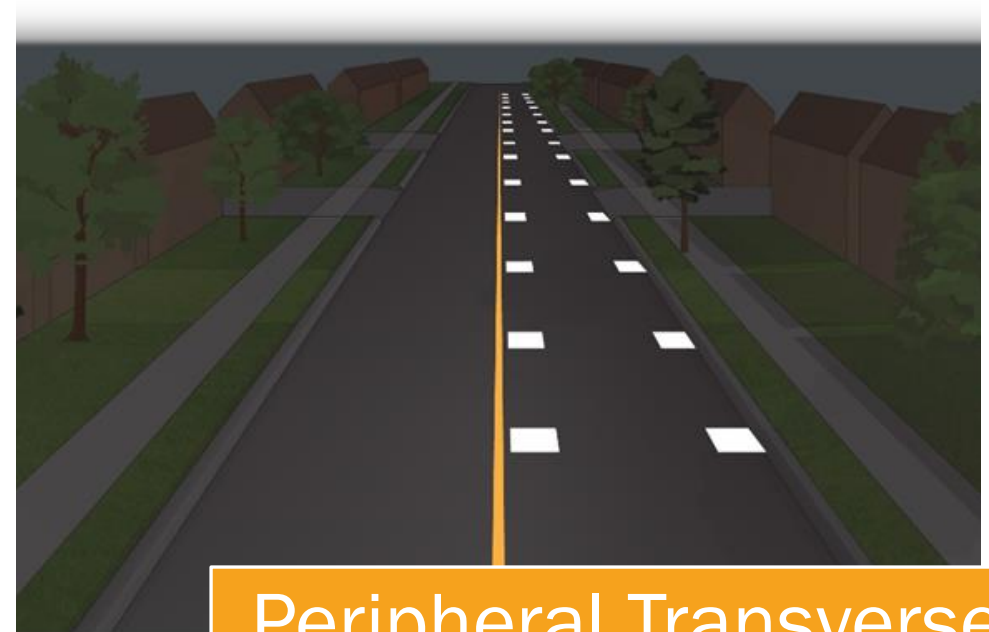
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# Pavement Markings

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On-Road Sign  
Pavement Markings



Peripheral Transverse  
Bars

For illustration purposes only (Source: Traffic Calming Policy and Guidelines, 2021 – City of Kingston)



# Enforcement and Education

Interactive or static devices that provide information about vehicular speed to oncoming motorists.

Vehicle speed may be captured using radar and can trigger a display board to show when vehicles approach at predetermined unsafe speeds.



# Enforcement and Education

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Speed Display Devices



Mobile Changeable Message  
with Road Safety Messaging

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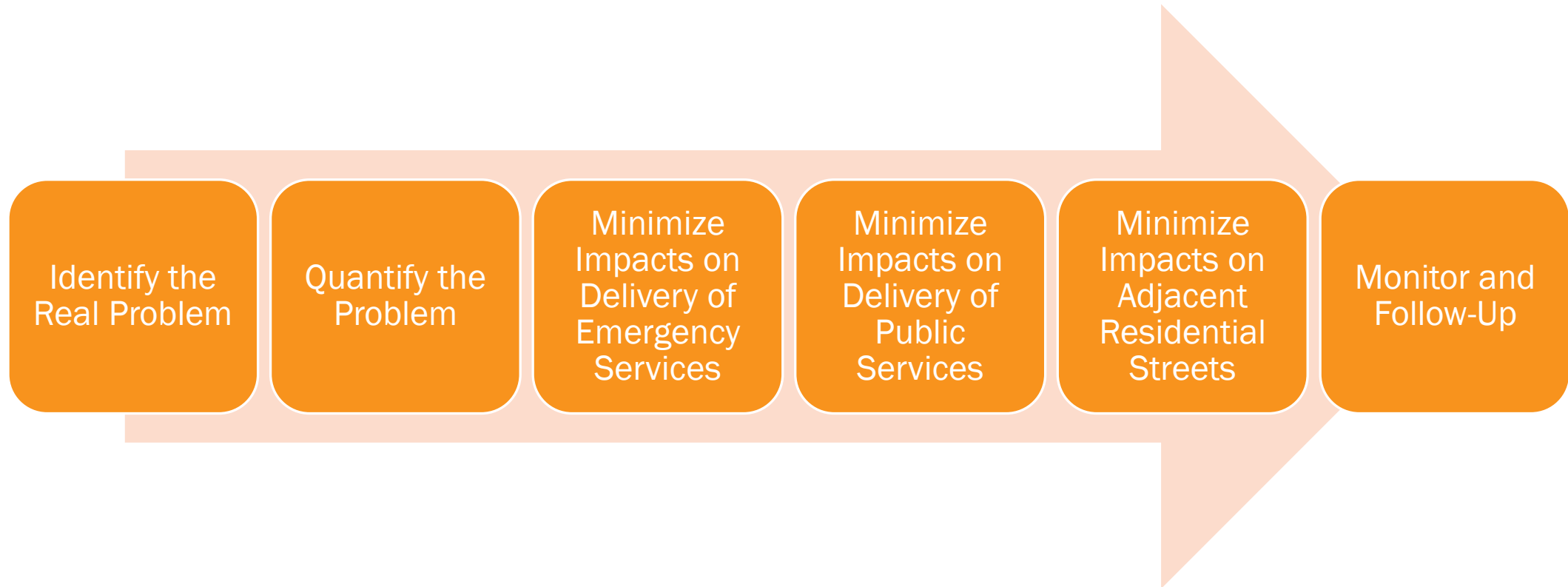


## Traffic Calming Policy Preparation

TRAFFIC CALMING  
IMPLEMENTATION PROCESS

# Traffic Calming Principles

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# Implementation Process

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## Determine if Traffic Calming is Required

The process can be initiated by an application from members of the public or by Town Staff as part of their regular activities.



## Context Review

Town Staff will determine if the proposed location is eligible for traffic calming measures following the criteria established in the Traffic Calming Policy.



# Implementation Process

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## Determine the Level of Required Action

If Town Staff determines that the proposed location is eligible for traffic calming measures, Staff will initiate a traffic study and – depending on the results, determination of suitable traffic calming measures

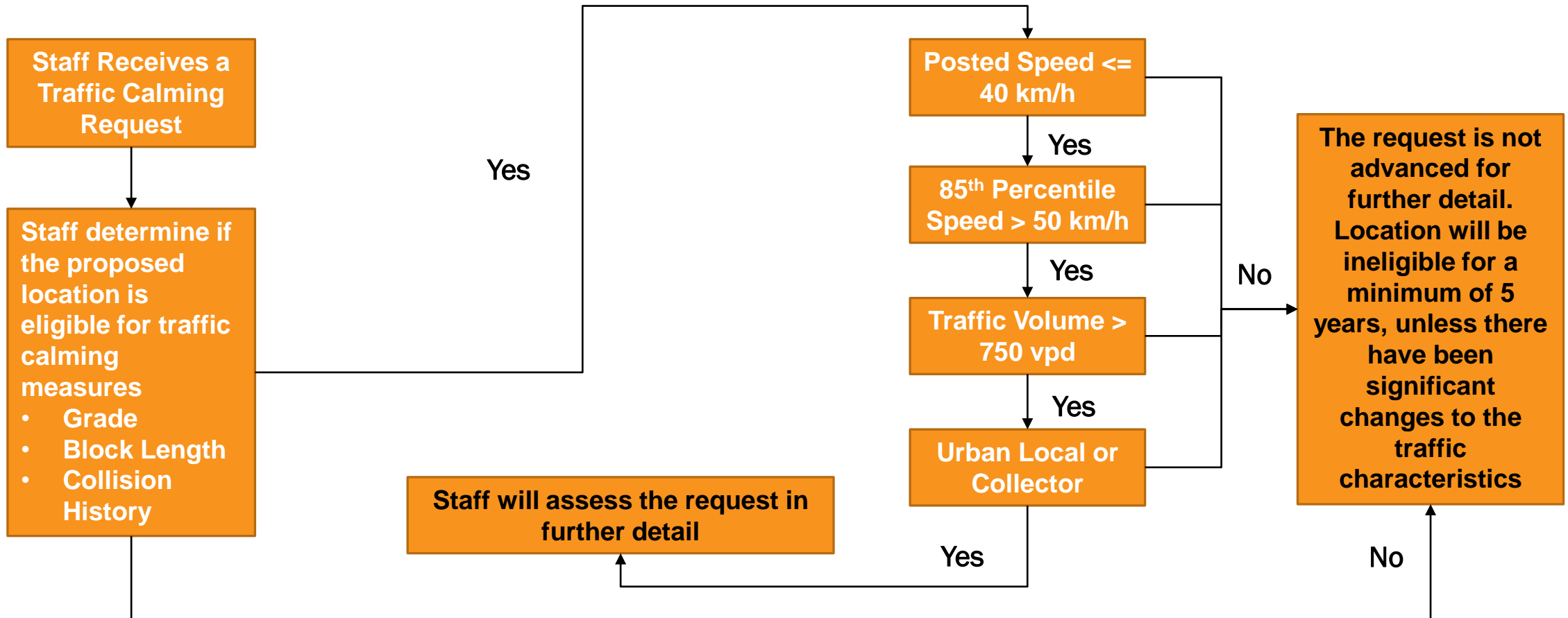


## Selection of Suitable Traffic Calming Measures

When a location is identified for implementation, Staff will review the list of available traffic calming measures and determined the most appropriate measure(s) based on the characteristics of the study area

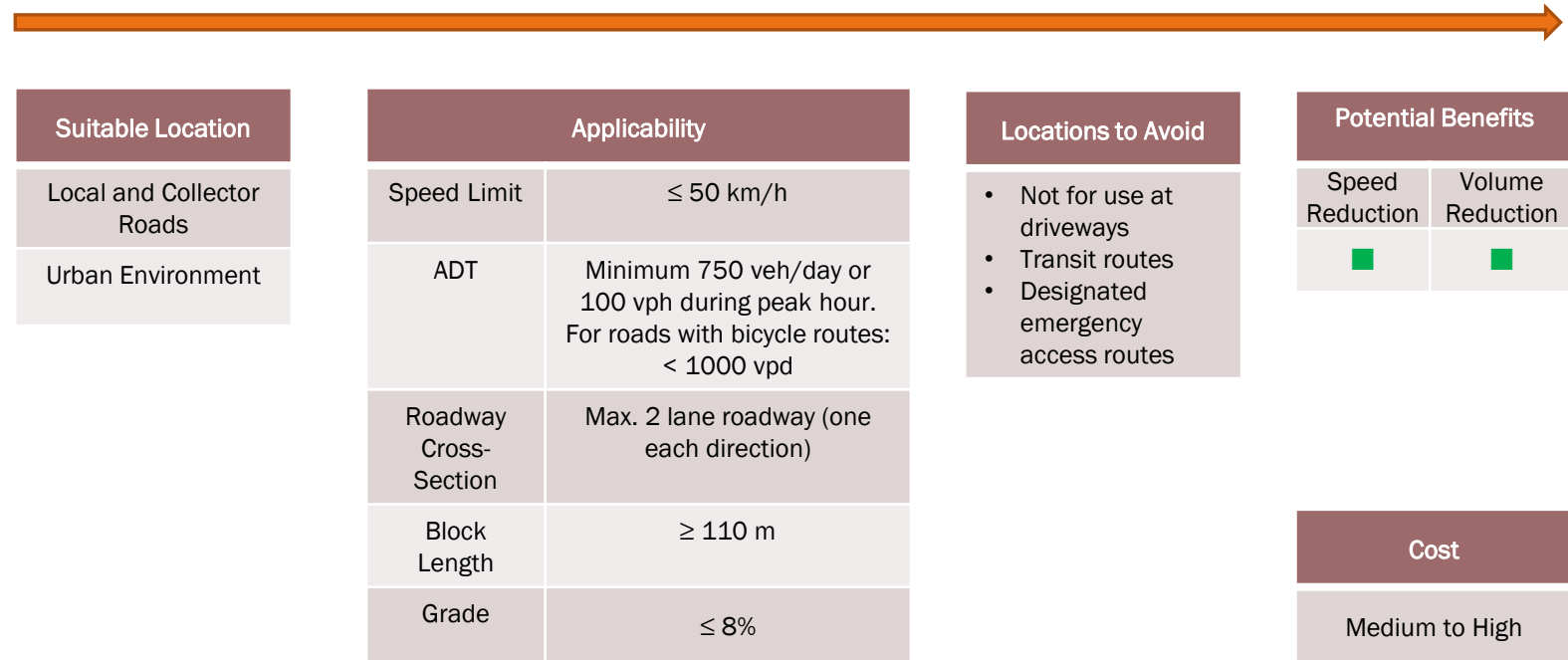


# Implementation Process



# Implementation Process

Chicanes are curb extensions that alternate from one side of the road to the other. In general, a series of three or more curb extensions are used to force vehicles to slow down and travel in an S-shaped path through the chicane. A one-lane chicane narrows a two-lane roadway into the width of one-lane, requiring one vehicle to yield if two vehicles arrive at the same time in opposite directions. They are most effective on local roads with regular traffic in both directions to minimize opportunities for motorists to drive down the center unimpeded.





# Implementation Process

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Potential Benefits	
Speed Reduction	<ul style="list-style-type: none"><li>• Can slow traffic by encouraging a driver to moderate vehicle speed through a series of horizontal deflections.</li><li>• Amount of speed reduction (or the final speed) depends on the length of the alignment shift, as well as the volume and distribution of traffic.</li><li>• Speed reduction between 5 and 15 km/h can be achieved.</li><li>• It may reduce collision rates up to 40%.</li></ul>
Volume Reduction	<ul style="list-style-type: none"><li>• Amount of traffic diversion is dependent on the number of measures along the roadway.</li><li>• Traffic may be diverted to parallel streets without traffic calming measures.</li></ul>
Considerations	
Local Access	<ul style="list-style-type: none"><li>• Implementation of this type of traffic calming measure does not affect access to local traffic.</li></ul>
Emergency Services	<ul style="list-style-type: none"><li>• It may have an effect on emergency service response times.</li><li>• A sufficient roadway width should be maintained to facilitate the movement of fire apparatus and other large vehicles.</li></ul>
Active Transportation	<ul style="list-style-type: none"><li>• Dedicated cycling facilities may be affected.</li></ul>
Enforcement	<ul style="list-style-type: none"><li>• Additional enforcement is not typically required, however, implementation of this type of traffic calming measure may incite sharp cornering, braking and acceleration, and other aggressive driving behaviour.</li></ul>

# Implementation Process

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## Design Considerations

Staff will design all Traffic Calming Measures following the guidelines of the Institute of Transportation Engineers (ITE), TAC Canadian Guide to Traffic Calming, Ontario Traffic Manuals, and all relevant Town of Orangeville design and construction standards and specifications.



## Cost Implications

Costs associated with implementation of traffic calming will vary depending on the specific type of traffic calming measures selected and the overall scope and size of the project. Where funds are not available, the solutions may be implemented in future years pending budget approval.





## Traffic Calming Policy Preparation

OPPORTUNITIES FOR  
COMMENTS AND FEEDBACK

# Comments and Feedback

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Thank You

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