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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 18, 2013
FROM:	EDWARD SOLDI, P. ENG. DIRECTOR, ROADS AND TRANSPORTATION
SUBJECT:	TRAFFIC CALMING POLICY

RECOMMENDATION

That on the recommendation of the Director, Roads and Transportation, the attached Traffic Calming Policy document, attached hereto as Appendix "A", **BE APPROVED.**

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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- October 12, 2004 – Environment and Transportation Committee - Traffic Calming Warranting Program and Prioritization of Projects
- August 15, 2011 – Built and Natural Environment Committee - Old North Neighbourhood Traffic Calming Plan

BACKGROUND

Purpose:

This report presents Committee and Council with an updated Traffic Calming Policy that outlines the process for the implementation of traffic calming measures on residential streets within the City of London. The Policy will be used to respond to concerns and issues, undertake studies, and to prioritize and implement approved traffic calming measures in neighbourhoods.

On November 12th 2012, the Civic Works Committee received a communication dated October 22nd 2012, regarding Summerside traffic calming measures. It was recommended that the Civic Administration report back in early 2013 on how traffic calming measures are assessed and the rationalization behind the types of measures used.

Context:

On October 12th 2004, the Environment and Transportation Committee received a staff report to consider a revised Traffic Calming (TC) Policy, and to implement traffic calming measures and evaluate traffic operational issues at 18 locations within the city. The primary criteria identified in the 2004 Traffic Calming Policy warranted program were:

- More than 25% of traffic had to have a measured speed greater than the posted speed limit; or
- More than 40% of the measured traffic volume is through traffic and total traffic equals at least 75% of the design volume for the road classification.
- A study area support rate of 60% has to be attained through a mail back survey with a minimum 40% response rate;

Since 2004, traffic calming measures have been implemented in over 40 locations throughout the city in response to identified operational traffic issues, primarily speeding. In addition, Transportation staff introduced a traffic awareness program called "*Public Education Enforcement Program (PEEP)*". As part of this program, display boards have been placed on more than 200 streets in the City to remind drivers of their speed and to slow down. Since 2004, staff have also reviewed and resolved more than 4000 traffic related issues as part of the Traffic Operations Public Service (TOPS) program.

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DISCUSSION

Generally, traffic calming studies have been initiated in response to requests from the public, either through individuals, through petitions, or through Ward Councilors. Although this approach will remain the same, the proposed TC Policy described later in this report ensures that implementation of any traffic calming measures is more local neighbourhood focused in order to gain community support and buy in. The new TC Policy outlines a clear, consistent and transparent process that prioritizes areas that have traffic concerns and implementable solutions.

As noted above, numerous traffic calming studies have been initiated over the past few years in response to resident's concerns about traffic issues in their neighbourhood. Through the Old North and other traffic calming studies it became apparent the current policy was failing to accurately measure community support.

Based on the experience in Old North and other areas it was determined a truer measure of the neighbourhood interest in the traffic calming plan was needed. To determine this interest, professional services were used to design and undertake a comprehensive telephone survey to accurately measure the effectiveness of the various mailings and surveys used during the plan development, traffic concerns in the neighbourhood and opinions about various traffic calming strategies.

A professional telephone survey poll (with an accuracy of +/- 7%, 19 times out of 20) was undertaken to better gauge Old North residents interest in traffic calming measures. It indicated that traffic concerns are more localized and not wide spread, and that the neighbourhood believed that while traffic calming measures can work, they can create more problems than they resolve.

On August 15, 2011, the Built and Natural Environment Committee received a report with respect to information on public opinion regarding the Old North Traffic Calming Plan resulting from the opinion poll undertaken, and on recommended changes to the implementation strategy that better matches neighbourhood interests.

New Traffic Calming (TC) Policy

For the past few months, staff has reviewed traffic calming policies of other Canadian municipalities including the City of Toronto, City of Ottawa, City of Winnipeg, Region of Waterloo, Town of Milton, and the Town of Oakville. A summary of how these municipalities conduct their traffic calming programs is shown in Appendix "B". Based on the review of practices, some of the following changes are proposed to the existing policy:

Key changes from current policy:

- Allow vertical deflections (e.g. speed cushions) on secondary collector roads when other options are not feasible.
- Prioritization of areas near schools and other pedestrian generators.
- The use of the measured 85th percentile speed to compare to the posted speed with a 10 km/h threshold trigger. Under the current policy nearly every street qualifies for traffic calming when using the posted speed limits. The new criteria which use methods proven by other municipalities will better prioritize where the City should be spending resources to correct operational safety problems.
- Incorporate a new ranking system as per Milton and Toronto TC Policies. The same scoring system will be used to prioritize areas of higher safety concern.
- Remove EA reference. In 2007 traffic calming was exempted from the Ontario Environment Assessment Act and is no longer required for conducting a traffic calming study.
- Include high speed criteria as per Oakville TC Policy.
- Include a pre-screening to determine traffic calming eligibility as per Milton TC Policy.

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- Incorporate passive measures. This type of traffic calming treatments is a simple modification in comparison to physical treatments. Passive modifications are intended to visually reduce effective lane width for a motorist and in most circumstances re-allocate some of road space to cyclists and on-street parking. These treatments have proven to be capable of reducing 85th percentile operating speeds by up to 5km/h.
- Include definitions and educational material for constituents including illustrations and explanations about various traffic calming tools.
- A survey/petition will be required from residents showing 25% support by residents to initiate a traffic calming study.
- A minimum of 51% of area residents must be in favour of proposed plan before implementation.
- Remove all references to TAC. The new policy will refer to City of London standards established through before-and-after studies carried out over the past 6 years.
- Define what isn't traffic calming (e.g. speed signs, "Community Safety Zone" signs, "Stop signs", "Children at Play" signs, etc).

Comments from other City Departments

In February of 2013, Transportation staff held a meeting with other City departments for their comments and input to the proposed Traffic Calming Policy. These departments/divisions included: Roads Operations, Community Services, Corporate Communications, Development Services (approval), and Planning (Urban Design). Overall, the feedback from staff was positive and supportive of the new Traffic Calming Policy, and found the new policy to be more local neighbourhood focused in order to meet public expectations. Key messages provided by these departments include:

- Roads Operations asked that a step be added to the process which would allow staff to review proposed Traffic Calming plans to ensure their ability to maintain the traffic calmed roadways. They also stated their preference to speed cushions and raised intersections over curb extensions and raised center medians.
- Community Services / Policy & Research, Recreation & Neighbourhoods asked that more emphasis be placed on the positive purpose and objectives of traffic calming. Would like to see more emphasis on public involvement by providing a clear message to residents that the more involved they are, the higher the degree of success for the project.
- Planning / Urban Design asked that more emphasis on pedestrians and vulnerable road users be added to the document and considered during the redesign process. They also asked that defining the character of a street be added to the Objective and Purposes section.
- Development Services asked to see a "vision statement" added to the report with respect to the character of a traffic calmed street and what it would look like. They also suggested that the new Traffic Calming Policy is intended for existing/retrofit areas and not for future developments.

The full comments received with respect to the new TC Policy can be found in Appendix "C". It should be noted that the TC Policy has been revised after receiving these comments and most of the comments have been accommodated.

Traffic Calming Policy Process

The new Traffic Calming Policy process addresses the two primary complications that exist with the current policy:

- Evaluate if there was enough support within the community to support traffic calming
- Adjust the speed criteria so streets with abnormal speeding issues are identified

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The following is a summary of the key three steps found in the new TC Policy to address the above points:

1. Over the past five years, Transportation staff has responded to numerous concerns brought forward by residents. Plans designed to address operational issues under the current policy have been presented at public meetings only to be opposed by a significant portion of the community who did not want traffic calming in their neighbourhood. This has resulted in Civic Administration and local politicians spending a lot of time validating and defending the plan, in some cases without the support of the people who initiated the request. Having area resident's survey their own neighbourhood prior to beginning the traffic calming process would determine if the community supports the project. Under the new policy, a survey showing a minimum of 25% support from those within the impact area must be produced for the traffic calming process to initiate. Failure to gain 25% support within the community will lead to a different process using less expensive and intrusive mitigating measures to address the resident's concerns.
2. Under the new policy, residents will also have to vote in favour of the final traffic calming plan in order for it to be carried on to the implementation stage. A minimum of 51% of total surveys delivered must be in favour of the plan.
3. A survey of a number of municipalities across Canada has determined most municipalities use the 85th percentile as the threshold to identify abnormal speeding issues in residential neighbourhoods. If a speed study indicates the 85th percentile is 10 km/h above the posted speed limit, this means a speeding problem in a residential area exists which needs to be addressed. The one exception to this is the case where the study identifies a small portion of drivers who exceed the speed limit by more than 15 km/h, criteria has been added into the new policy to address this situation.

Moving Forward

The new Traffic Calming Policy will be the tool for reviewing, processing, and implementing traffic calming measures in existing residential neighbourhoods. Transportation staff has records of numerous requests from residents with respect to traffic related issues in their neighbourhoods. Some are much localized in nature and others are more neighbourhood related. The request by the residents of the Summerside area to install traffic calming measures will be processed following the new Traffic Calming Policy. This will be a good pilot review to evaluate the new policy and adjust it if needed. Another study that staff will work on is the Old Masonville area. That being said, this area will follow the second half of the process of the new policy since a study has been completed already to identify the traffic issues based on the old policy.




CONCLUSION

- This report illustrates the history of traffic calming initiatives and challenges from the past 10 years.
- The new Traffic Calming Policy was reviewed by staff from several City Departments and their feedback and comments were accommodated in the document.
- The new Traffic Calming Policy addresses the issues in the current policy and found over the years.
- A 25% support from residents must be produced for the traffic calming process to initiate, and a minimum of 51% of total surveys delivered must be in favour of the plan before implementation.
- The new TC Policy is a local neighbourhood-focused initiative that is intended to meet the public expectations.
- Transportation staff will initiate a traffic calming process for the Summerside area if the City receives a minimum of 25% support from area residents as recommended in the new Traffic Calming Policy.

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Acknowledgements

This report and the Traffic Calming Policy document were prepared with the assistance of Maged Elmadhoon, Manager, Transportation Planning, Mark Ridley, Senior Transportation Technologist and Carol Hayward, Division Administrative Assistant within the Transportation Planning and Design Division.

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- Attach: Appendix "A" – Traffic Calming Policy - Draft
 Appendix "B" – Summary of Traffic Calming for Other Municipalities
 Appendix "C" – Summary of Comments from Other City Departments

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Agenda Item # Page #

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Appendix 'A'

Traffic Calming Policy - Draft



City of London

Traffic Calming Policy For

Existing Neighbourhoods



PEBC Image Library

ACKNOWLEDGEMENTS

The source of some of the reference material contained in this manual was retrieved from the following Municipalities:

1. Town of Milton, ON, Canada
2. Town of Oakville, ON, Canada
3. City of Toronto, ON, Canada
4. City of Oakhill, Tennessee, USA

TABLE OF CONTENTS

1. INTRODUCTION..... 1

1.1 Background..... 1

1.2 Traffic Calming Purpose & Goals 1

1.3 What is Traffic Calming 2

1.4 What is NOT Traffic Calming 3

1.5 Advantages and Disadvantages of Traffic Calming 5

1.6 Pedestrians & Traffic Calming..... 6

2. TYPES OF TRAFFIC CALMING 7

2.1 Passive Traffic Calming 7

2.2 Physical Traffic Calming..... 7

2.3 Streets That Qualify for Traffic Calming 9

3. POLICY GUIDELINES 10

4. TRAFFIC CALMING PROCESS 11

4.1 Public Input..... 11

4.2 Process Initiation and Pre-Screening 11

4.2.1 Traffic Calming Ineligibility based on Pre-screening 13

4.2.2 Traffic Calming Neighbourhood Petition..... 14

4.3 Data Collection 14

4.3.1 Point Assessment System 15

4.3.2 Traffic Calming Design Considerations 15

4.4 Comments from Emergency/Transit/Transportation and Roadside Operations 16

4.5 Public Information Centre & Public Input Notice 16

4.6 Community Support Survey 16

4.6.1 Survey Scope 17

4.6.2 Measuring Community Support..... 17

4.7 Resident Notification 17

4.8 Finalize Preferred Traffic Calming Plan..... 17

4.9 Implementation of Traffic Calming Measures 18

4.10 Evaluation and Monitoring..... 18

4.11 Removal of Traffic Calming Measures 18

- Appendix A: Traffic Calming Techniques
- Appendix B: Traffic Calming Form Letters
- Appendix C: Traffic Calming Point Assessment

1. INTRODUCTION

1.1 Background

The City of London is responsible for ensuring roadways serve the needs of all users such as cars, transit, pedestrians including those with accessibility needs, cyclists, emergency vehicles and snow removal equipment. When the rules of the road are not followed, residents may no longer feel safe walking or riding their bikes on the street, in these cases traffic calming measures may be needed to restore the street to its intended function in the neighbourhood.

Every year the City receives numerous complaints or concerns from residents regarding speeding, traffic volumes and/or cut through traffic in residential areas. The Transportation Division responds by investigating the need for neighbourhood traffic calming measures to potentially mitigate these unfavourable driving conditions.

While some residents perceive they already have the solutions to traffic issues in their neighbourhood, studies across North America have shown that using the wrong tool to address a traffic issue not only doesn't solve the problem, but may result in creating additional safety issues in the area. This policy defines what is traffic calming and clarifies what is not traffic calming. The goal of introducing traffic calming is to create safe and attractive streets, promote pedestrian, bicycle and transit use, and improve the quality of life in residential neighbourhoods.

Traffic calming is a contentious subject and should be dealt with in a clear, concise and transparent process that will meet the needs and expectations of the community. This document outlines how investigations into traffic calming measures should be initiated and implemented based on the experience gained by the City of London and other Ontario municipalities over the last decade.

1.2 Traffic Calming Purpose & Goals

The overall purpose of this policy is to provide a comprehensive process that addresses local neighbourhood traffic issues in the City of London. The policy is intended to restore City streets, with an identified problem, to their intended function through applicable traffic calming measures, and hence, preserve and enhance the quality of London communities.

The specific goals of this traffic calming policy are to develop an integrated set of policies, objectives and procedures that will combine to form a set of overall working guidelines that will:

- Educate residents about traffic calming so they can make more informed decisions and also understand the rationale behind the City's decision making process.
- Provide a policy that City officials and the general public are confident is an effective and fair tool in evaluating speeding and/or traffic volume problems.

- Provide a standard format for dealing in a consistent manner with complaints regarding speeding and traffic safety concerns.
- Reduce the workload and duplication of effort for City staff in responding to resident traffic concerns.
- Educate people on how to create a safe and a pleasant roadway environment for residents, motorists, cyclists and pedestrians.
- Encourage public involvement in the traffic calming activities.
- Educate residents on pedestrian and cyclist safety.

This policy will also provide the guideline, procedure and criteria for the initiation, investigation and implementation of traffic calming measures within existing residential neighbourhoods. The policy will ensure safety concerns related to speeding and excessive volume are handled in a fair, transparent and efficient manner. Guidelines included in this policy will be applied to local and collector roadways within residential neighbourhoods.

The policy does not apply to arterial roadways nor does it apply to anticipated future problems. This policy only applies to identify operational issues within existing residential areas. While similar traffic related issues may exist on arterial roadways, the primary function of an arterial road is to move traffic efficiently. Therefore, traffic calming measure(s) that may be appropriate for use on non-arterial roadways would not be suitable for use on arterial roadways.

1.3 What is Traffic Calming

Traffic calming, as defined by the Institute of Transportation Engineers (ITE) Subcommittee on Traffic Calming, 1997 is:

“The combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for non-motorized street users.”

According to the Canadian Guide to Neighbourhood Traffic Calming, prepared by the Institute of Transportation Engineers (ITE) and the Transportation Association of Canada (TAC), December 1998:

“The purpose of traffic calming is to restore streets to their intended function.”

The primary purpose of traffic calming under this policy is to reduce high traffic speeds within residential neighbourhoods and thus improving safety for pedestrians and area residents.

1.4 What is NOT Traffic Calming

Over the past 30 years there has been a significant amount of knowledge gained through the implementation of successful projects to determine what traffic calming measures work and which traffic calming measures are not effective. The all way stop, 40 km/hr reduced speed zone, children at play signs, posted speed signs, rumble strips and speed bumps are all devices commonly mistaken for being traffic calming tools. None of these devices works to calm traffic for the reasons listed below:

Unwarranted All Way Stop

- Creates higher traffic speeds between stop signs. Studies have determined the speed is only reduced for 100 m on either side of the intersection.
- Results in poor compliance with stop signs due to driver frustration, as low as 1% in some studies in the City of London.
- Results in more frequent rear-end collisions caused by low percentage of motorists who actually do come to a complete stop.
- Requires frequent police enforcement as motorists do not stop, a drain on manpower resource.
- Potential risk to pedestrians **especially children and seniors** crossing an intersection, since not all motorists approaching an intersection will stop.
- Motorists get in the habit of stopping at unwarranted all-way stop locations, than assume at a 2 way stop cross traffic is going to stop and pull out in front of an opposing vehicle which results in a collision.

In light of the above, all-way stops should not be used as a tool to calm traffic. There are established criteria for all-way stop control based upon the numbers of pedestrians and vehicles sharing an intersection, the collision history and visibility. When these criteria are followed, risks are minimized and new safety concerns are not created. There have been numerous studies completed in North America which have validated all of the above findings.

40 km/hr Speed Zone

- People travel at a speed they feel comfortable based on the environment though which they are driving regardless of the posted speed limit.
- Compliance with an artificially reduced speed is only achieved with consistent and visible police enforcement, a resource which is not always available.
- Collisions, when they occur, can be more significant due to the differences in speed between vehicles.
- Pedestrians may perceive the roadway to be safer due to the reduced speed limit. This false sense of security may lead pedestrians that are crossing the roadway to not be as cautious as they would be otherwise.

'Children at Play' Sign

- Many signs in residential areas, which are installed to 'warn' people of normal conditions, fail to improve safety.
- Warning signs can be effective tools if used sparingly and only to warn motorists of uncommon hazards that are not apparent to motorists.
- 'Children at Plan' signs can give parents a false sense of security since motorists often disregard these signs.
- Children playing in the streets, while common place, is dangerous and prohibited in the Highway Traffic Act and the Traffic By-law.
- Since children live on nearly every residential block, 'Children at Plan' signs would need to be placed on every roadway.
- Residential blocks with no signs might imply that no children live there, so it is acceptable to exceed the posted speed limit.

Speed Limit Sign

- The posted speed limits for roadways are typically established based upon recognized engineering criteria related to the roadway design.
- Additional signage and/or adjusting the posted speed limit of a roadway are not considered to be traffic calming measures.

Rumble Strip

A Rumble Strip is a raised pavement section that can be closely spaced along a roadway at regular intervals. Rumble strips are a road safety feature used to caution inattentive motorists of potential danger. As the motorist travels over the rumble strips, the vehicle experiences both noise and vibration to alert the motorist.

They are typically installed along freeways and higher speed roadways to alert motorists that may begin to veer from the travel lane to the shoulder. Their purpose is to reduce the number of vehicles that depart the roadway; this is a common example of rumble strips used to enhance safety. Rumble strips can also be installed across the travel lane itself when unusual conditions exist ahead.

Rumble Strips can be installed along the travel lanes of a higher speed roadway that contains an isolated all-way stop controlled intersection. A motorist may grow accustomed to traveling at a certain speed and otherwise may not expect to stop; the purpose of the rumble strip is to alert the driver. This is a common example of rumble strips to alert motorists of a condition that is unusual to a specific roadway.

Rumble strips should not be used as traffic calming measures. These measures become less effective over time as the motorists grow accustomed to them. Rumble strips also increase noise levels for nearby residents and commonly require additional maintenance.

Speed Bumps

These measures should not be confused with speed humps. Speed bumps are vertical obstructions often found in privately-owned parking lots (shopping centers, schools, condominium complexes, parks, etc). Speed bumps typically measure between 75 mm and 100 mm in height and 3 m in length, and are often designed for a design speed that is much lower than a typical posted speed limit along a public roadway.

Traffic calming measures should be designed and implemented with the purpose that vehicles will be able to comfortably travel at the posted speed limit. In contrast, speed bumps require vehicles to travel much slower to attain a comfortable travel speed. The necessary braking and slow speeds can create a safety hazard, possibly causing rear-end collisions.

In summary, speed bumps should not be installed on public roads and are not considered to be a traffic calming measure.

1.5 Advantages and Disadvantages of Traffic Calming

Traffic calming if used properly will address identified operational traffic issues. However it will also introduce some disadvantages to a residential neighbourhood that will impact area residents after the project is complete. Listed below are some of the advantages and disadvantages created or caused by traffic calming measures:

Advantages

- Reduced vehicle speeds
- Reduced traffic volumes
- Reduced number of cut through vehicles
- Improve neighbourhood safety especially for pedestrians
- Reduced conflicts between roadway users
- Increase compliance with regulatory signs

Disadvantages

- Potential increase in emergency vehicle response time
- Could make it more difficult to get into and out of your neighbourhood every day
- May result in expensive solutions (time and resources)
- May shift or divert traffic onto neighbouring roadways
- Increase maintenance time and costs
- Add visually unattractive warning signs to a residential area
- May splinter neighbourhood with strong 'for and against' traffic calming opinions

1.6 Pedestrians & Traffic Calming

The principal purpose to reducing the speed of traffic in residential areas is to protect all vulnerable road users, such as pedestrians. Copied below is an excerpt from the Ontario Traffic Manual Book 15 - Pedestrian Crossing Facilities:

Pedestrians' Rights and Responsibilities

Notwithstanding the distinction between controlled and uncontrolled crossings, the rights and responsibilities for pedestrians are recognized in the Highway Traffic Act:

- 1. In the absence of statutory provisions or bylaw, a pedestrian is not confined to a street crossing or intersection and is entitled to cross at any point, although greater care may then be required of him or her in crossing. However, pedestrians crossing the highway must look to ensure the crossing can be made safely or possibly be held responsible for any ensuing collision.*
- 2. Pedestrians must exercise due care even when they are lawfully within a crossing and have right-of-way. It is not an absolute right and they must still exercise care to avoid a collision with a vehicle.*
- 3. If there is a crosswalk at a signalized intersection, pedestrians have to walk within the crosswalk*

The above excerpt is stating whenever a pedestrian crosses a road they have a duty of care to themselves to cross when it is safe. It is important to remember under the Highway Traffic Act motor vehicles are only required to stop or yield to pedestrians at a controlled crossing such as traffic signals or pedestrian signals. At all uncontrolled crossings pedestrians must wait for a safe gap in traffic sufficient for them to cross before entering the road.

When an area is studied for traffic calming pedestrian crossing points are primary focus points, since this potential conflict point is exactly where you want drivers to slow down. The installation of traffic calming tools such as raised crosswalks, raised intersections, curb extensions does not change the rules of the Highway Traffic Act, pedestrians must still cross the road responsibly.

2. TYPES OF TRAFFIC CALMING

Traffic Calming for the purpose of this policy is broken into two categories:

- i. Passive, i.e. line markings and/or signage
- ii. Physical, i.e. intrusive treatments that modify the shape and/or form of the travel lanes making it uncomfortable for drivers to attain high speeds.

2.1 Passive Traffic Calming

Passive traffic calming treatments are simple modifications in comparison to physical treatments. Passive modifications are intended to visually reduce effective lane width for a motorist and in most circumstances re-allocate some of road space to cyclists and on-street parking. These treatments have proven to be capable of reducing 85th percentile operating speeds by up to 5 km/hr in other municipalities.

Passive treatments are implemented on a proactive and reactive basis and are typically applied uniformly over the entire road section, unlike physical treatments which are best described as spot treatments. The modifications associated with passive calming treatments are typically well received by the public. Staff provides the public with advance notification, including a plan of the proposed modifications prior to implementation. This level of public interaction appears to work well for the application of passive traffic calming.

2.2 Physical Traffic Calming

Physical traffic calming can be broken down into three categories vertical deflections, horizontal deflections and physical obstructions.

Vertical traffic calming measures provide an obstruction that vehicles are able to travel over. The change in pavement height (and sometimes pavement materials) can cause discomfort to the occupants of vehicles that are exceeding the design speed of the traffic calming measure.

Horizontal traffic calming tries to prevent vehicles from traveling in a straight line at excessive speeds by using measures such as raised islands and curb extensions.

Physical obstructions involve a full or partial closure of the road.

Examples of passive and physical traffic calming techniques are listed in **Table 1**. **Appendix A** provides a more detailed explanation of the traffic calming devices listed below, including the advantages and disadvantages.

City of London – Traffic Calming Program

Table 1- Applicability of Traffic Calming Measures in London

Traffic Calming Technique	Measure Applicable On:				
	Road Classification			Other Considerations	
	Local Road	Secondary Collector	Primary Collector	Emergency Response Route	Transit Route
Passive and Mitigating Measures					
Education	YES	YES	YES	YES	YES
Community Entrance Sign	YES	YES	YES	YES	YES
Textured Crosswalk	YES	YES	YES	YES	YES
Targeted Enforcement	YES	YES	YES	YES	YES
Speed Display (PEEP)	YES	YES	YES	YES	YES
On Street Parking	YES	YES	YES	YES	YES
Road Diet	YES	YES	YES	YES	YES
Physical Vertical Deflection					
Speed Cushion	YES	YES	YES	YES	YES
Raised Intersection	YES	YES	YES	YES	YES
Raised Crosswalk	YES	YES	NO	YES	YES
Speed Table	YES	YES	NO	YES	YES
Speed Hump	YES	NO	NO	NO	NO
Physical Horizontal Deflection					
Curb Extension	YES	YES	YES	YES	YES
Curb Radius Reduction	YES	YES	NO	NO	NO
Neighbourhood Traffic Circle	YES	YES	NO	NO	NO
Centre Island Median	YES	YES	YES	YES	YES
One-Lane Chicane	YES	YES	NO	NO	NO
Lateral Shift	YES	YES	YES	YES	YES
Roundabout	YES	YES	YES	YES	YES
Physical Obstruction					
Directional Closure	YES	YES	NO	NO	NO
Raised Median Through Intersection	YES	YES	YES	YES	YES
Right-In/Right-Out Island Intersection	YES	YES	YES	NO	NO
Channelization	YES	YES	YES	YES	YES
Diverter	YES	YES	NO	NO	NO
Full Closure	YES	YES	NO	NO	NO

2.3 Streets That Qualify for Traffic Calming

Locals and Secondary Collectors

Traffic calming will only be considered on local and collector streets residential roads and not on arterial roadways in the City. Through application of this policy and by applying good engineering judgment, traffic calming measures, when deemed prudent, will be installed in a manner that will ensure they provide the most effective solutions while continuing to support the intended function of the roadway. For example, to ensure that transit service remains efficient on collector routes, curb radius reduction would not be recommended at locations where transit vehicles must turn right since curb radius reductions significantly slow the turning speed of larger transit vehicles.

Local Roads

The primary function of local roadways is to provide access to adjacent properties. Local streets are not intended for use as through routes or as important links to move traffic within an area's overall road network. An acceptable volume of traffic for a local road is up to 1,500 vehicles a day. Examples of local streets are Wyatt, Inverness, Jacqueline and Gunn.

Secondary Collectors

Secondary Collectors carry traffic volume typically under 5,000 vehicles per day, between local roads, primary collectors and arterial roadways. Secondary collectors help circulate traffic within individual neighbourhoods. Secondary collectors link smaller local roadways to the larger road network but are relatively short as compared to arterial roadways which may extend from one side of the City to the other. Examples of secondary collectors are Hastings, Glenora, Vancouver, Jalna and Andover.

3. POLICY GUIDELINES

The following guidelines will be considered when investigating, selecting and implementing traffic calming measures. These guidelines will ensure that the appropriate measures are considered and the potential negative impacts are minimized. Following these guidelines will maximize the effectiveness of traffic calming while building community acceptance and support for the final recommendations.

Traffic calming measures will:

- Be considered only after education, enforcement and traffic engineering efforts have failed to produce the desired results.
- Be considered when there is a demonstrated safety, speed or short-cutting traffic concern and acceptable alternative measures have been exhausted.
- Be considered after focus is placed first on improvements to the arterial road network, such as signal timing optimization.
- Include consideration as to whether an area-wide plan versus a street-specific plan is more suitable: an area wide plan should be considered if a street-specific plan would likely result in displacement of traffic onto adjacent streets.
- Be predominantly restricted to two lane roadways (one lane of through traffic in each direction) and a posted speed limit no greater than 50 km/h.
- Not impede non-motorized, alternative modes of transportation and be designed to ensure pedestrian and cycling traffic is unaffected.
- Not impede Emergency and Transit services access unless alternate measures are agreed upon.
- Maintain reasonable automobile access to City roads.
- Only be installed after Transportation Engineering staff has investigated existing traffic conditions and the necessary approvals have been received.
- Be monitored; follow-up studies will be completed to assess effectiveness and the results will be communicated to the community and Council.

4. TRAFFIC CALMING PROCESS

The following process will be used when proceeding with a request for traffic calming. An established and formal process for investigating roads provides consistency and equality in the determination of whether traffic calming is warranted in a given location. The process is illustrated in the flow chart shown in **Figure 1**.

4.1 Public Input

In order for traffic calming to achieve the goal of restoring residential streets to their intended purpose, community involvement and support is paramount. Throughout the process, residents are encouraged to participate in the development of a traffic calming plan suitable to the neighbourhood and the concerns within it.

Before an area is considered for traffic calming a signed petition must be received by the City showing a minimum of 25% support for traffic calming measures. If a petition is not received showing the required level of interest, the area will not qualify for traffic calming.

Later in the process, after passive measures have failed to address the traffic concerns, area residents will be asked by survey or at a Public Information Centre (PIC) for input on minor adjustments into a proposed physical traffic calming plan for the area.

In order for a traffic calming plan to be approved it must be circulated amongst all impacted area residents and must receive a 51% response rate in favour from all residents surveyed before being considered for implementation.

The benefit of community involvement is that it generates support for a traffic calming program and assists in the implementation of a plan without significant opposition upon completion. Community involvement also enhances the credibility of the traffic calming program, particularly when it is eventually presented to Council for approval.

4.2 Process Initiation and Pre-Screening

Residents with traffic related concerns are instructed to submit their written request to investigate traffic calming within their neighbourhood to the City. Staff will then conduct a brief preliminary assessment to determine if the requested roadway meets the Initial Screening Criteria, shown in **Table 2**.

City of London – Traffic Calming Program

Figure 1 – Traffic Calming Process



300 Dufferin Avenue
P. O. Box 5035
London, ON
N6A 4L9

Legend

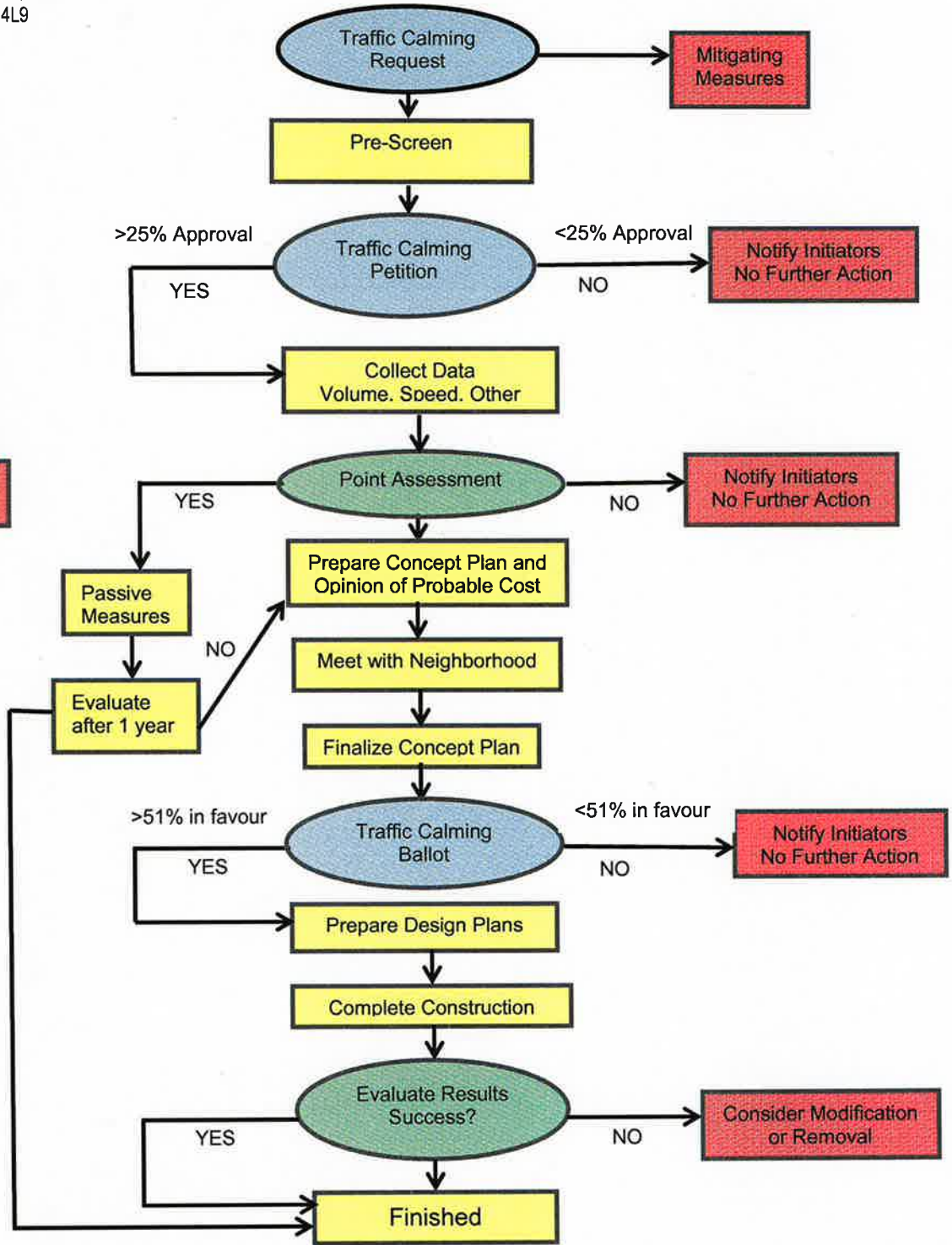




TABLE 2: TRAFFIC CALMING PRE-SCREENING PROCESS
Completed During Initial Contact

	1. Is road a Local or Secondary Collector	PASS	FAIL
	2. Is AADT >500	PASS	FAIL
	3. Is posted speed 50 km/hr	PASS	FAIL
	4. Is the road assumed	PASS	FAIL
	5. Is the road primarily residential	PASS	FAIL
	6. Does the street provide an obvious by-pass to a major intersection	PASS	FAIL
	7. Is section of road longer than 150m	PASS	FAIL
	8. Have any previous efforts been made within the last 12 months	PASS	FAIL

If the road in questions fails any of the 8 areas listed in the pre-screening it does not qualify for traffic calming.

4.2.1 Traffic Calming Ineligibility based on Pre-screening

For locations not meeting the above-noted initial screening criteria, staff will consider front-line mitigating measures to address the neighbourhood traffic concerns. These methods could include tools such as the use of driver feedback boards, targeted police enforcement, sign installation and pavement marking modifications.

Front-line mitigating measures very rarely require public involvement such as surveys and public meetings. However, they may require monitoring and evaluation to assess their effectiveness. Details regarding front-line mitigating measures are provided in **Appendix 'A'**.

4.2.2 Traffic Calming Neighbourhood Petition

After it has been determined that the requested location meets the initial screening criteria, the proponent must submit a written request, accompanied by a petition. Staff will provide a copy of the petition to the proponent (**Appendix 'B'**). The focus of the petition will centre on whether or not there is neighbourhood support for the City to initiate an investigation into the need for traffic calming on the requested roadway.

A minimum of twenty-five percent (25%) of property owners within the impact area must indicate their approval by signing the Traffic Calming Petition. The signatures must come from households with direct frontage or flankage onto the section of roadway that has been identified as the location for the potential implementation of traffic calming measures, as defined by Transportation Engineering staff. Each household is represented by one signature, regardless of the number of people in the household. This step in the process is crucial in determining the level of concern from the residents. Failure to meet the 25% support level will result in termination of the investigation; meeting the required 25% support level will trigger the commencement of a traffic calming study.

The City shall allow twenty-eight (28) days for the petition to be returned. Day zero (0) is the date on which the City delivers the Traffic Calming Petition to the citizen representative.

- a. If petition approval is achieved, the evaluation phase begins.
- b. If twenty-eight (28) days elapse and petition approval has not been achieved, the roadway will not be considered for traffic calming for twelve (12) months. This twelve (12) month waiting period may be waived at the discretion of the City.

4.3 Data Collection

Once a successful petition is received the collection of data is scheduled based on a priority list. The City shall collect information and data along roadway(s) in the project as deemed necessary by Transportation Engineering staff to qualify and quantify the extent of the local traffic problem. The data collection may include any of the following:

- Vehicle volume count to determine 24-hour traffic
- Speed study to determine existing speed data
- Classification count to determine heavy vehicle traffic
- Collision data for the most recent three (3) years
- Study to quantify cut-through traffic, if necessary
- Existing roadway conditions (e.g. pavement condition, signing, marking)
- Pedestrian activity
- Presence of sidewalks on one or both sides of the road

- Presence of special pedestrian generators such as schools, seniors homes, playgrounds, etc in the area
- History of traffic operations for the area within last 5 years

A review of the data will be completed using recognized engineering standards. Once collected and summarized, the data will be utilized in the point assessment system to determine a total point value. This assessment will be used to determine the need for traffic calming and assist in setting priority for locations of consideration.

4.3.1 Point Assessment System

The point assessment system is a screening process focused on the various attributes of a roadway in order to quantify its potential need for traffic calming. By means of assigning weighted points based on the severity of certain road attributes (e.g. 85th percentile speed), this process will bring to the forefront roadways requiring consideration while quantifying the current conditions. A point assessment system is provided in **Appendix 'C'**.

The point assessment system will also be used to prioritize locations for consideration. Those locations with an extremely high point assessment will be given priority based on the quantitative nature of the point assessment system. Depending on funding availability, locations will be selected based on the point system with those locations with the highest points constructed first. If funding does not permit all locations to be constructed in one year, roadways will be carried forward to the next year when they will then be re-prioritized to include any new locations.

The minimum number of points required to proceed with the investigation of traffic calming measures differs based on the classification of roadway. In keeping with the objective of restoring roadways to their intended function, local and collector roadways are designed and expected to convey varying levels of traffic volume. This, in turn, has a bearing on the minimum point value required to proceed, as traffic volume is a major consideration. Based on this, the following are minimum point values for each road type:

Local road minimum 35 points

Collector road minimum 52 points

Should a location fail to meet these requirements, residents will be notified in writing and the investigation for traffic calming measures will discontinue. However, staff will continue to address the concerns of the residents by means of the front-line mitigating measures.

4.3.2 Traffic Calming Design Considerations

The data collected combined with site visits, historical information, future maintenance and construction plans, as well as resident feedback will be taken into consideration to determine potential traffic calming measures.

Appropriate traffic calming measures will be determined based on the list of traffic calming measures outlined in **Appendix 'A'** of this policy. The traffic calming design could include one or more different types of traffic calming techniques. The proposed traffic calming measures will be in accordance with the design Guidelines found in the City of London Standards Document, The Canadian Guide to Neighbourhood Traffic Calming, engineering judgement and experience of staff.

The preferred design will first be presented to emergency and/or roadside operations services. It will then be presented at a public meeting. After any required modifications to the preferred design as a result of public input, a traffic calming survey will be delivered to affected residents.

4.4 Comments from Emergency/Transit/Transportation and Roadside Operations

Staff will provide the preferred design to the relevant review agencies (e.g. emergency and transit services). Comments from the potentially affected services will be solicited and feedback with respect to possible impacts will be encouraged. As required, City staff will work with agencies to modify the design, as necessary. While it is preferable to modify the traffic calming design, if modifications are not able to remedy agency concerns, the traffic calming process will be discontinued for the roadway under consideration and residents will be notified.

4.5 Public Information Centre & Public Input Notice

Staff will host a Public Information Centre (PIC) to present the purpose, objectives and implementation process of traffic calming in general. The PIC notice will be circulated to all residents who live within 120 m of the street being studied. Staff will then present and explain the rationale behind the specific preferred traffic calming design. The public meeting will provide residents with an opportunity to become involved in the process, learn more about the proposed traffic calming treatment(s) and to provide their feedback. Each plan will include a procedure to communicate with and engage the neighbourhood, in keeping with the Council Policy on Community Engagement and its principles.

Notification of the meeting will be published in a newspaper and through other social media network, including City website, Facebook and Twitter. The purpose of this notice will be to provide notification to the public regarding the meeting date, time and location. It will also present an opportunity to solicit comments on the alternative traffic calming measures.

4.6 Community Support Survey

Based on input received from emergency, transit and Transportation and Roadside Operations as well as from the public at the public meeting, the preferred design will be modified. The objective of the community support survey is to determine the level of support for the traffic calming design and to provide an opportunity for the most directly affected residents to oppose any modifications to the road. It is also intended to measure the support of the preferred design proposed to the residents.

4.6.1 Survey Scope

Surveys will be delivered by mail to residents who live on the street being studied and at a minimum, will contain:

- A brief description of traffic calming, including its advantages and disadvantages;
- The results of the traffic studies undertaken by staff;
- A survey question asking if residents are in favour, opposed or neutral to the implementation of traffic calming measures in the identified location(s);
- The preferred traffic calming design;
- A request for comments and feedback; and
- An indication that this is the final opportunity to modify and improve the preferred design to address any outstanding concerns and to incorporate resident input.

4.6.2 Measuring Community Support

In order for the process to continue, a minimum of 51% of total surveys delivered must be returned to the City indicating they approve the future installation of the recommended traffic calming plan. This reinforces that community support is vital for the ultimate success of traffic calming.

If this support rate is not met, the process will cease and a notification of failure to meet the community support levels will be sent to the residents on the mailing list.

4.7 Resident Notification

Residents will be notified that traffic calming has been either approved or not approved by the City on the subject roadway. The notice will be sent to the same mailing list used to deliver the traffic calming survey and any other persons having requested notification throughout the process.

4.8 Finalize Preferred Traffic Calming Plan

Using technical data, community feedback, and in keeping with the goals, objectives and principles set out in this policy, staff will finalize the preferred traffic calming design to be put forward as the recommended preferred traffic calming plan. In finalizing the preferred traffic calming plan, general consideration will be given to the various aspects of road design such as utility placement, landscaping, sign requirement and drainage.

If, during the detailed design stage, limitations are identified which challenge the feasibility of the plan, alternatives will need to be considered. This may include alterations or a re-development of the preferred plan. If significant or major changes to the plan are required due to design constraints, agencies and residents on the mailing list will be consulted and notified of any changes. If staff believe that the required modifications to create the detailed design result in a significantly different final design

from that which was presented to residents as part of the survey, staff may recommend additional agency consultation, another survey and/or public meeting.

4.9 Implementation of Traffic Calming Measures

Upon approval of Council, resident notification, and sufficient funding, traffic calming measures will be implemented. Residents will be notified of implementation timelines through the contact mailing list. Where feasible, staff may decide it is beneficial to phase in the traffic calming plan through the use of temporary or removable traffic calming measures such as pavement markings or barrels. This will allow time to examine the impact of the measures and their effectiveness before committing funding to permanent treatments.

4.10 Evaluation and Monitoring

Traffic engineering staff will monitor the roadway to determine the effectiveness of the utilized measures and their impact on the surrounding road network. This information will be used in recommending similar measures in the future. In addition to conducting before and after speed studies the City will conduct studies to assess if the traffic calming plan has resulted in significant amounts of traffic diverting to adjacent, parallel streets in some cases. These after studies will be compared with the City's 'before' studies to determine the change in traffic volume.

4.11 Removal of Traffic Calming Measures

Traffic calming devices may be removed, at the request of residents after 2 years provided that at least the same level of support exists to remove as was measured for installation.

A minimum of twenty-five (25) percent of property owners within the impact area must indicate their approval by signing the Traffic Calming Removal Request. The signatures must come from households with direct frontage or flankage onto the section of roadway that has been identified as the location for the potential implementation of traffic calming measures, as defined by Traffic Engineering Staff. Each household is represented by one signature, regardless of the number of people in the household.

When Transportation staff receives a successful petition, a survey will be sent out to all the area residents who were initially surveyed. The survey will be delivered to the same residents as was initially done to gauge support for traffic calming. The survey must indicate a minimum of 51% of respondents surveyed agreeing to the removal to be deemed successful. Traffic calming measures must be installed for at least 2 years before starting the process to remove them. If traffic calming devices are removed, the subject street must wait at least 5 years before requesting a new traffic calming plan; at this point the approval process will start over.

If a request to remove a single traffic calming device, within an overall traffic calming plan, is received, all traffic calming devices will be considered for removal. Depending on

circumstances, it could be possible to remove a single device constructed as part of an overall plan, however, in most cases all devices work together to be effective and to ensure that traffic is not diverted where it should not be. The City reserves the right to remove traffic calming measures if it determines that they are ineffective or unsafe, or if they have created a negative impact that cannot be corrected. The City will mail out a notification and advertise in local newspapers informing of its decision to remove traffic calming measures.

APPENDIX A

Traffic Calming Techniques



London
CANADA

PHYSICAL VERTICAL DEFLECTION

Vertical traffic calming measures provide an obstruction that vehicles are able to travel over. The change in pavement height (and sometimes pavement materials) can cause discomfort to the occupants of vehicles that are exceeding the design speed of the traffic calming measure. It should be noted that most vertical traffic calming measures are not preferred along roadways that are emergency vehicle routes or transit routes. To reduce the chances of potential liability issues, vertical traffic calming measures should be signed and marked in accordance with reference material provided by the Institute of Transportation Engineers (ITE) and the Neighbourhood Traffic Calming (TAC).

Vertical traffic calming measures typically perform better when they are installed in a series, as opposed to a single isolated measure. The deceleration and acceleration of a vehicle, while negotiating a series of vertical traffic calming measures, is dependent on the number and spacing of the installations.

The implementation of vertical traffic calming measures can result in some traffic diverting onto parallel streets. This essentially moves the cut-through problem instead of solving it. Consideration should be placed on the concept of improving the Neighbourhood (not just improving the street).

Vertical traffic calming measures include speed humps, speed cushions, speed tables, raised crosswalks, raised intersections, and textured pavements.

Speed Cushion

Speed cushions are narrower speed humps that are typically installed in the center of each travel lane. Speed cushions typically are six (6) feet in width. Speed cushions typically range in length between seven (7) and ten (10) feet. Passenger vehicles will traverse the speed cushions in the same manner as a speed hump. However, emergency vehicles are able to straddle the speed cushions due to their wider wheel track. Thus, response times for emergency vehicles are not increased as much (if at all).

Advantages:

- Less expensive than speed humps
- Effective in reducing vehicle speed
- Does not impact emergency vehicle response time as much as speed humps

Disadvantages:

- Increases noise and air pollution in Neighbourhood
- Passenger vehicles with larger axle widths may be able to straddle the speed cushions
- May be damaged by snow plows



Raised Intersection

Raised intersections can be used as a traffic calming measure while also alerting drivers to the potential for pedestrians or vehicles at an intersection. The physical attributes are similar to a speed table in that each intersection approach elevates to a height of three (3) inches over a length of six (6) feet. The flat top, also similar to a speed table, is provided throughout the entire intersection.

Advantages:

- Provides a more visible pedestrian crossing
- Provides traffic calming along two roads
- Quicker response time for emergency vehicles than speed humps
- Effective in reducing vehicle speed, but not as well as speed humps
- Addition of brick or textured materials can improve aesthetics

Disadvantages:

- Very expensive compared to speed humps and speed tables
- More expensive than speed humps
- Increases response time for emergency vehicles
- Increases noise and air pollution in Neighbourhood
- Could create drainage impacts
- May be damaged by snow plows

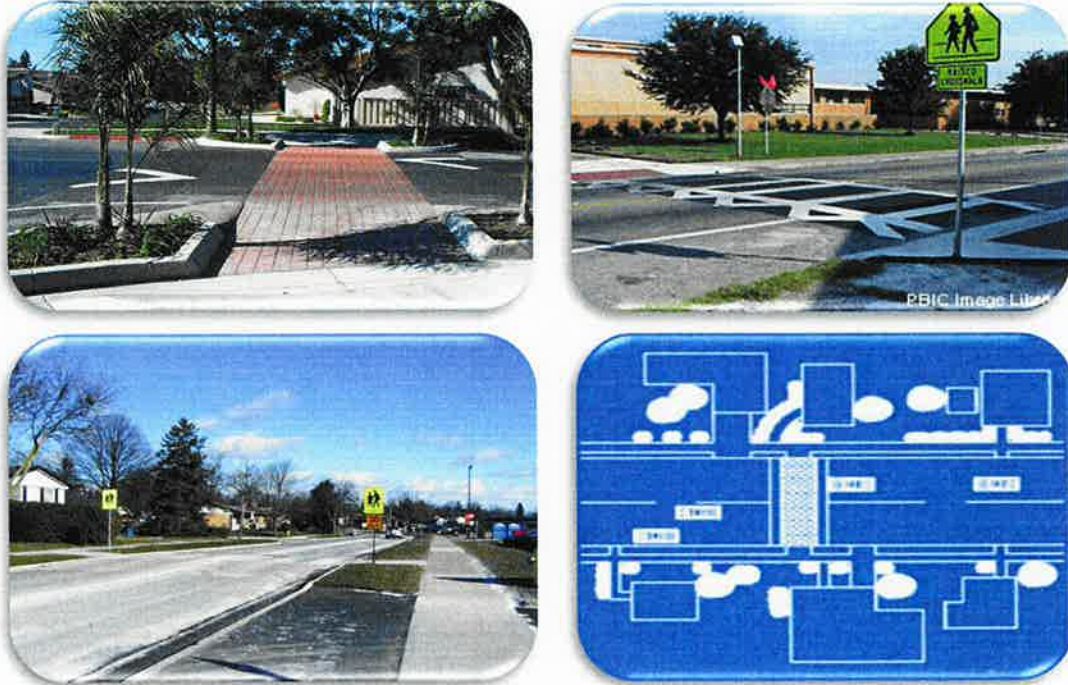


Raised Crosswalk

Raised crosswalks have a similar shape to a speed table, but the flat top contains a striped pedestrian crosswalk. These measures should be elevated to a height that matches the adjacent sidewalk, such that the raised crosswalk is flush with the curb or top of sidewalk elevation at each end. Raised crosswalks must be installed with the appropriate sidewalk transitions on both sides.

Advantages:

- Provides a more visible pedestrian crossing
- Quicker response time for emergency vehicles than speed humps
- Effective in reducing vehicle speed, but not as well as speed humps
- Addition of brick or textured materials can improve aesthetics



Disadvantages:

- More expensive than speed humps
- Increases response time for emergency vehicles
- Increases noise and air pollution in Neighbourhood
- May be damaged by snow plows

NOTE: Lack of sidewalk infrastructure may result in a raised crosswalk not being applicable in the City. Raised crosswalks can be constructed without the presence of sidewalks, as long as there are ADA-compliant pedestrian landing areas with detectable warning strips on both ends of the raised crosswalk.

Speed Table

Speed tables are flat-topped speed humps. Speed tables typically measure between three (3) and four (4) inches in height and 22 feet in length, with the flat portion being ten (10) feet in length. Speed tables are typically long enough for the entire wheelbase of a passenger car to rest on the flat top. Their long flat fields give speed tables higher design speeds than speed humps. The brick or other textured materials are usually used on the flat top to improve the appearance of speed tables, draw attention to them, reduce speed, and may enhance safety. Like speed humps, discomfort increases as the speed of the vehicle traveling over the hump increases. Speed tables are good for locations where low speeds are desired but a somewhat smooth ride is needed for larger vehicles.

Advantages:

- Quicker response time for emergency vehicles than speed humps
- Effective in reducing vehicle speed, but not as well as speed humps
- Addition of brick or textured materials can improve aesthetics

Disadvantages:

- More expensive than speed humps
- Increases response time for emergency vehicles
- Increases noise and air pollution in Neighbourhood



Speed Hump

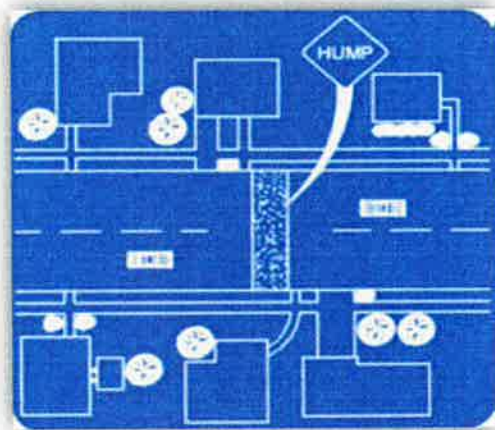
Speed humps are raised areas of pavement which are rounded on top and placed cross the entire street. Speed humps typically measure between 75 and 100 millimeters in height and 10m in length. The height and length of the speed hump determines how fast it can be navigated without causing discomfort to the driver. Discomfort increases as the speed of the vehicle traveling over the hump increases.

Advantages:

- Low Cost
- Effective in reducing vehicle speed

Disadvantages:

- Increases response time for emergency vehicles
- Negative impact on Transit buses
- Increases noise and air pollution in Neighbourhood
- May be damaged by snow plows



HORIZONTAL TRAFFIC CALMING MEASURES

Horizontal traffic calming measures incorporate raised islands and curb extensions to prevent vehicles from traveling in a straight line at excessive speeds. Vehicles either slow down while maneuvering around the horizontal obstacle, or slow down due to the physical perception of a narrower roadway. To reduce the chances of potential liability issues, horizontal traffic calming measures should be signed and marked in accordance with reference material provided by the Institute of Transportation Engineers (ITE) and the Neighbourhood Traffic Calming (TAC).

The implementation of horizontal traffic calming measures can result in some traffic diverting onto parallel streets. This essentially moves the problem instead of solving the problem. Consideration should be placed on the concept of improving the Neighbourhood (not just improving the street).

Horizontal traffic calming measures include Neighbourhood traffic circles, roundabouts, chicanes, lateral shifts, center medians and curb extensions.

Curb Extension

Curb extensions reduce the roadway width at intersections and midblock locations, thereby reducing speeds when drivers experience the physical perception of a narrow roadway. Curb extensions offer the more important benefit of improving pedestrian safety by providing a refuge and shortening the crossing distance. The City has installed a number of curb extensions in the past 6 years and they have found to be very effective in school zones where they offer the third benefit of defining the parking area.

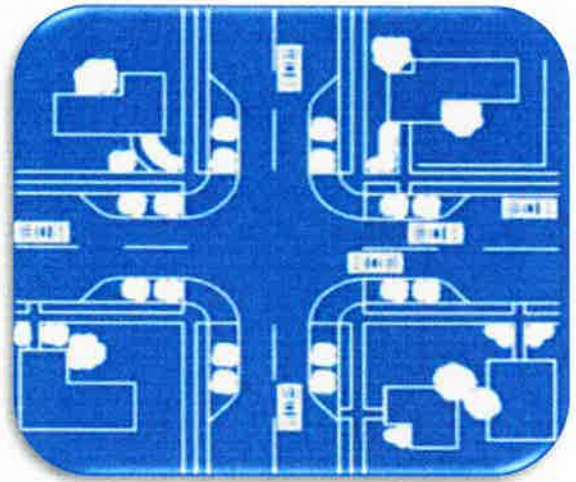
Advantages:

- Encourages a safer pedestrian environment by providing a shorter crossing distance and increased visibility
- Very effective in front of elementary schools in addressing pick-up, drop off parking issues
- Prevents parking too close to intersections keeping sight lines open
- Opportunity for landscaping and improved aesthetics



Disadvantages:

- Effectiveness is limited by the absence of vertical deflection and if traffic volumes are low
- Difficult for right-turning emergency vehicles
- Increased cost for maintenance of landscaping if it exists
- May require bicyclists to briefly merge with vehicular traffic

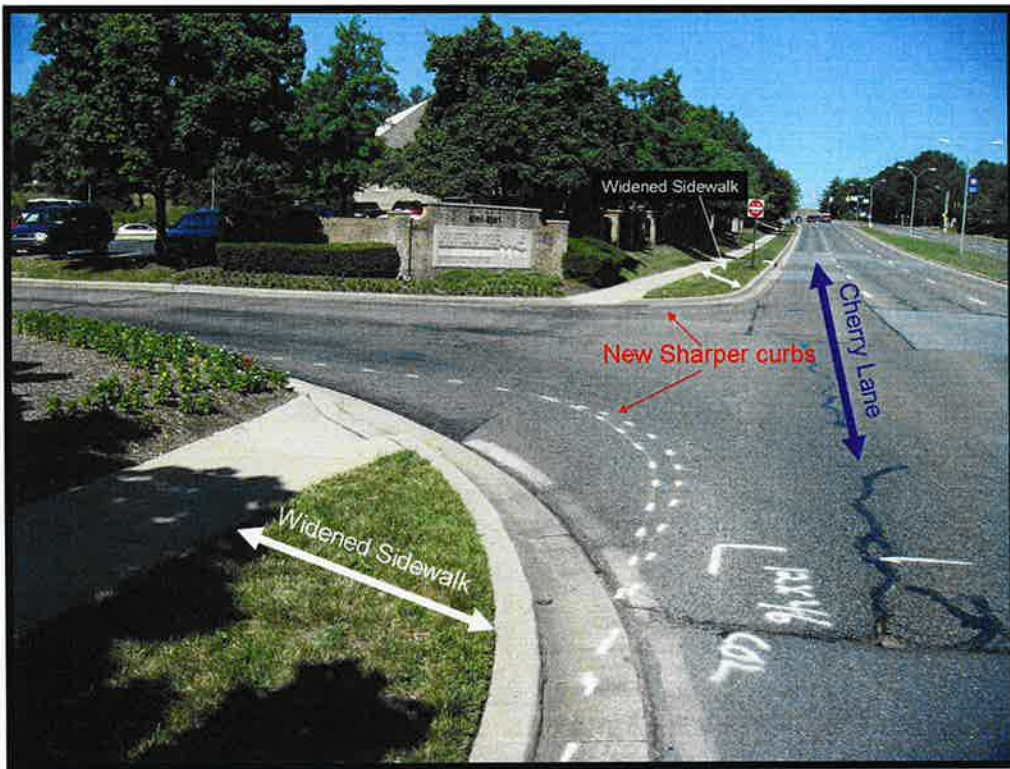


Curb Radius Reduction

The Curb radius reduction is the reconstruction of an intersection corner to a smaller radius. This measure effectively slows down right-turning vehicle speeds by making the corner 'tighter' with a smaller radius. A corner radius reduction may also improve pedestrian safety to a certain degree by shortening the crossing distance. This type of measure is acceptable primarily on local roads and to a lesser extent on collector roadways, its use is often limited to specific situations where the existing intersection geometry would allow the reconstruction. In addition, curb radius reductions should not be used on transit routes requiring a right turn.

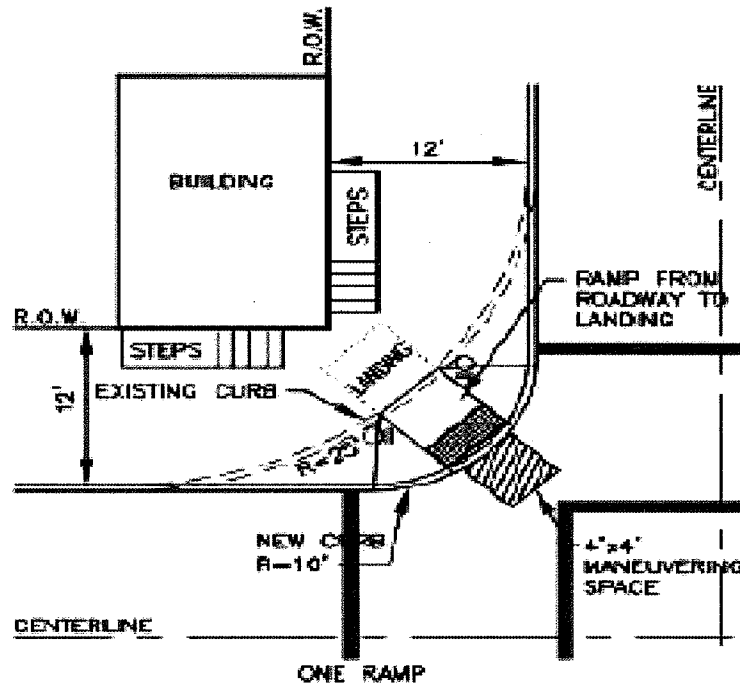
Advantages:

- Shortens pedestrian crossing time
- Forces vehicles on approach to come to a full stop



Disadvantages

- Large axle vehicles are unable to negotiate the turn without driving over the sidewalk



Neighbourhood Traffic Circle

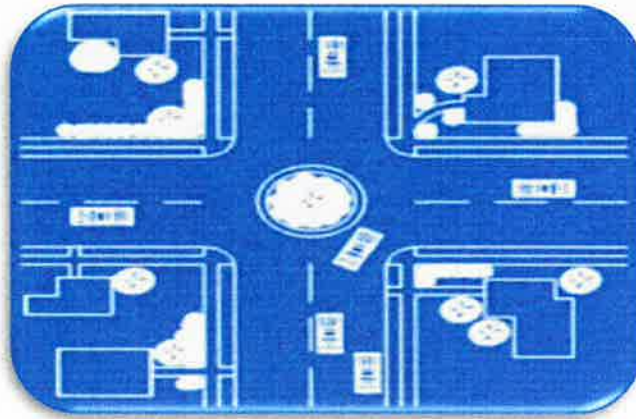
Neighbourhood traffic circles are raised islands placed in intersections, forcing traffic to circulate around the raised island. The traffic circle is typically circular in shape and can include landscaping within the raised island. The raised island in the center of the intersection typically measures between 16 and 24 feet in diameter. Neighbourhood traffic circles can be controlled by YIELD signs on all approaches, STOP signs on all approaches, or a combination of free-flow conditions along the major street and STOP signs along the minor street. Traffic circles prevent drivers from speeding through intersections by impeding the through movement. Neighbourhood traffic circles are most effective when there is vertical planting material in the center. This adds to its visibility to the driver and provides aesthetics to the Neighbourhood.

Advantages:

- Effective in reducing vehicle speed
- Can reduce severity of motor vehicle collisions
- Opportunity for landscaping and improved aesthetics

Disadvantages:

- Difficult for left-turning emergency vehicles
- Possible need for right-of-way, depending on size of raised island
- Increased cost/labor for maintenance of landscaping



Center Island Median

Center island medians are raised islands located along the centerline of a street that narrow the travel lanes at that location. The presence of a median, resulting in a smaller roadway width, reduces speeds when drivers experience the physical perception of a narrow roadway. The medians can be landscaped to provide visual amenity.

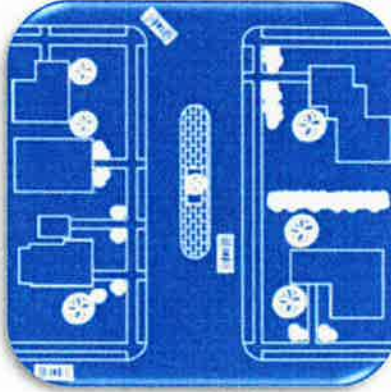
The median island can act as a “gateway” when placed at the entrance to a neighbourhood. A median island of adequate width can also be referred to as a “pedestrian refuge” if located at a crosswalk and the median is accommodating for pedestrians.

Advantages:

- If designed well, can have a positive aesthetic value
- Opportunity for landscaping and improved aesthetics

Disadvantages:

- Effectiveness is limited by the absence of vertical deflection
- May interrupt driveway access to adjacent properties
- Increased cost for maintenance of landscaping



Chicane

Chicanes are curb extensions that alternate from one side of the street to the other, creating S-shaped travel patterns. Raised landscaped islands or delineators are usually provided at both ends of a chicane in order to enhance the drivers awareness of the need for a lateral shift.

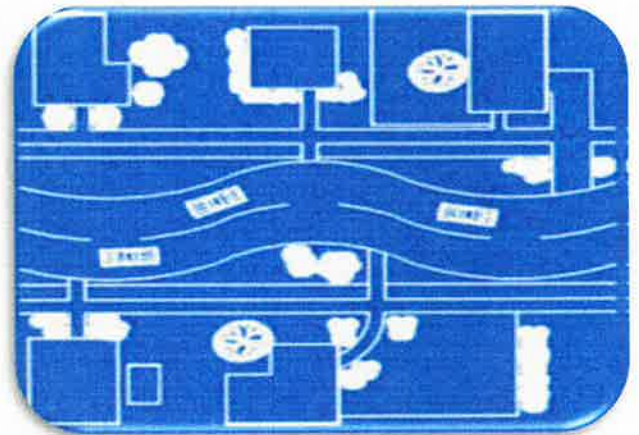
Along a section of roadway that contains a chicane, off-street parallel parking may be restricted along property frontages due to curb and gutter.

Advantages:

- Discourages high speeds by forcing horizontal deflection
- Easily negotiable by emergency vehicles
- Opportunity for landscaping and improved aesthetics

Disadvantages:

- Must be designed carefully to discourage drivers from deviating out of the appropriate lane
- Curb realignment and landscaping can be expensive, especially if there are drainage issues
- Increased cost for maintenance of landscaping



Lateral Shift

Lateral shifts can be described as one half of a chicane. Curb extensions or pavement markings are provided on otherwise straight streets that cause travel lanes to bend one way and then bend back the other way to the original direction of travel. With the appropriate degree of deflection, lateral shifts are one of the few measures that have been used on collectors or even arterials. When high traffic volumes and high posted speed limits prevent the use of other traffic calming measures, lateral shifts can be considered.

Advantages:

- Can accommodate higher traffic volumes than many other traffic calming measures
- Discourages high speeds by forcing horizontal deflection
- Easily negotiable by emergency vehicles
- Opportunity for landscaping and improved aesthetics

Disadvantages:

- Must be designed carefully to discourage drivers from deviating out of the appropriate lane
- Curb realignment and landscaping can be expensive (pavement markings are less expensive)
- Increased cost for maintenance of landscaping



Roundabout

Unlike traffic circles, roundabouts are larger and typically require additional right-of-way. The central island diameter of a single-lane roundabout can measure between 55 and 110 feet. Roundabouts require raised splitter islands to channel approaching traffic to the right. Roundabouts are found primarily on arterial and collector streets, often substituting for intersections that are controlled by traffic signals or all-way stop signs. More information on roundabouts can be found in "Roundabouts: An Informational Guide" prepared by the Federal Highway Administration (FHWA).

Advantages:

- Moderates traffic speed on an arterial, collector, or local road
- Enhanced safety compared to a traffic signal
- Less expensive to operate than a traffic signal
- Opportunity for landscaping and improved aesthetics



Disadvantages:

- May require major reconstruction of an existing intersection
- Increases pedestrian distance from one crosswalk to the next
- Difficult for visually impaired pedestrian to navigate
- Increased cost for maintenance of landscaping



Curb Face Sidewalk

A curb face sidewalk is a wider than normal sidewalk retrofitted into an older area of the City where putting a sidewalk in standard location would eliminate or damage a number of mature trees. The sidewalk is primarily built on the existing road bed, narrowing the road.



Advantages

- Removes the pedestrians from the road improving pedestrian safety.
- Narrowing the road will slow some drivers down.
- No trees need to be removed.

Disadvantages

- May have to eliminate on street parking.
- Expensive.



PHYSICAL OBSTRUCTION

Physical obstructions are the most severe traffic calming tool and are only used when it is determined a vertical or a horizontal measures won't address the identified problem . The primary purpose of physical obstructions is to eliminating short-cutting traffic by stopping specific vehicle movements. It is important to note that physical obstructions are intended to deter motor vehicle traffic only and not to obstruct bicycle or pedestrian traffic. These types of measures are typically implemented at intersections, but may also be applied at some mid-block locations.

Obstructions range from those that have a relatively minor impact on vehicular access to those that severely restrict access such as a road closure. It is important to remember once the vehicle restricted movement is in place area residents have to live with it every day.

Directional Closures

Directional closures are created using a curb extension or other barrier that extends into the roadway, approximately as far as the centerline. This device obstructs one side of the roadway and effectively prohibits vehicles travelling in that direction from entering. Directional closures are especially useful for controlling non-compliance of one-way road sections and are compatible with other modes such as bicycles.

At all directional closures, bicycles are permitted to travel in both directions through the unobstructed side of the road; however, some directional closures have a pathway built through the device specifically for bicycles. Since their purpose is to prevent short-cutting traffic, directional closures are applicable for use on local streets and minor collectors, at their intersection with collectors and arterials

Advantages

- Directional closures typical result in about a 40% reduction in traffic volumes.
- There may also be a reduction in travel speeds around the intersection
- Eliminates right angle collisions

Disadvantages

- Restricts resident access to the neighbourhood; and
- May divert significant volume of traffic to parallel streets without traffic calming measures

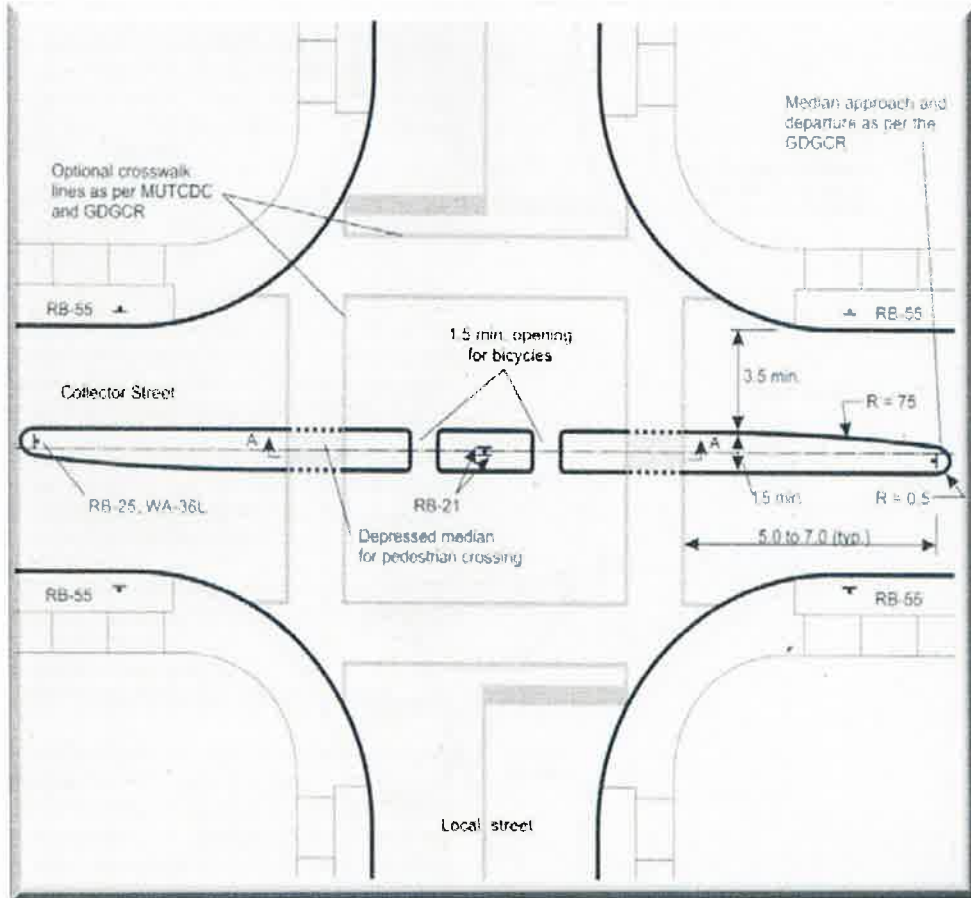


Raised Median Through Intersection

These devices may be used on the centerlines of local and collector roadways to prevent left-turn and through movements to and from intersecting streets. This type of device is especially effective at preventing short-cutting and through traffic while providing some secondary pedestrian safety benefits.

This is the device that was built at Cheapside and William a number of years ago to address a collision problem.

The advantages and disadvantages are the same as the directional closure.



Rights-In/Rights Out

Right-in/right-out islands are raised triangular islands located on an intersection approach to limit the side street to right turn in and out movements. Similar to a raised median through an intersection, this device is used primarily to restrict movements to and from an intersection roadway.

Right-in/right out islands may be considered only for use in locations where local residential streets intersect another roadway of any class. The island needs to be designed properly or vehicles will drive left around it.

The advantages and disadvantages are the same as the directional closure.



Diverter

A diverter is a raised barrier placed diagonally across an intersection that forces traffic to turn and prevents traffic from proceeding straight through the intersection. Diverters can incorporate gaps for pedestrians, wheelchairs and bicycles and can be mountable by emergency vehicles. The purpose of a diverter is to obstruct short-cutting or through traffic.

Advantages

- Diverters can result in a 20% to 70% reduction in area-wide traffic volumes, depending on extent of diverters used.

Disadvantages

- Restricts resident access to the neighbourhood; and
- May divert significant volume of traffic to parallel streets without traffic calming measures.



Full Closure

A full closure is a barrier extending the entire width of a roadway, which obstructs all motor vehicle traffic along the roadway. A closure can change a four-way intersection to a three-way intersection, or a three-way intersection into a non-intersection. Gaps can be provided for cyclists and they are typically passable by emergency vehicles. The purpose of a full closure is to eliminate short-cutting or through traffic.



Advantages

- Eliminates all short-cutting or through traffic.

Disadvantages

- Restricts resident access to the neighbourhood; and
- May divert significant volume of traffic to parallel streets without traffic calming measure.

PASSIVE & MITIGATING MEASURES

Passive traffic calming measures do not require construction of physical modifications to the roadway. Passive traffic calming often results in lower cost and prevents constructing a more-permanent change to the roadway. Physical (vertical and horizontal) traffic calming measures will be considered by the City when either the passive measures have not alleviated the Neighbourhood concerns or the City determines the need for their installation.

Passive traffic calming measures include education, targeted speed limit enforcement, radar trailer placement, dynamic speed display signs, and speed legends.

Education

Activities that change people's perceptions and help alter driver behaviour are most preferred. Meetings and workshops with neighbours and the City can help implement and direct traffic calming applications. Most traffic problems are a result of human behaviour. Through outreach programs and Neighbourhood watch programs such as the Active and Safe Routes to School program, residents can play a big part in spreading the information.

Advantages:

- Flexible in the duration of meetings, workshops, etc.
- Inexpensive compared to other alternatives

Disadvantages:

- Difficult to measure the effectiveness
- May take time to be effective
- Potential challenge in generating citizen participation

Community Entrance Signs

The "Drive Slowly... Think of Us" sign is purely informational and as such, is intended to serve as a reminder to motorists that they are entering a residential area where the residents are concerned about the safety and integrity of their neighbourhood.



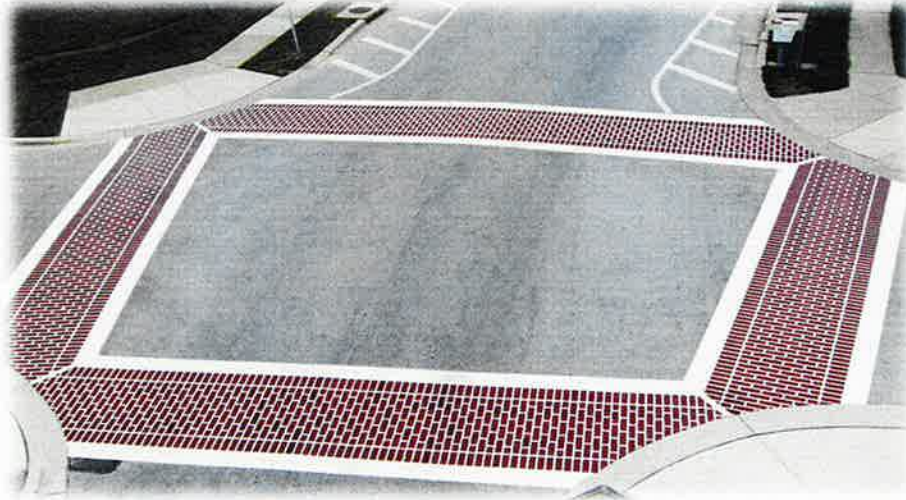
As the over use of any traffic control device or sign can have a negative effect on motorist activities, the Engineering Services Department limits the placement of community entrance signs using the following principles/guidelines:

Limits its installation to entrances to residential neighbourhoods off collector and arterial roadways where the neighbourhood experiences a degree of non-residential through traffic.

The sign is meant to serve as a reminder for motorists to "turn off" the highway driving mode and to be aware that they are entering a residential area where reduced speeds are required to negotiate vehicles entering and exiting driveways as well as the potential for children to be playing adjacent to the roadway.

Textured Pavement

Textured pavement and stamped asphalt can be used alone as a traffic calming measure or in combination with other physical measures. Drivers typically slow down when crossing textured pavement due to vibration created by the pavement surface. However, this also creates considerable noise that may be a disadvantage for neighbours.



Advantages:

- Pleasing visual aesthetics

Disadvantages:

- Noise pollution
- Higher cost
- Not as effective in reducing speeds



Targeted Speed Limit Enforcement

The City, through the London Police, can provide targeted speed limit enforcement in response to identified operational issues. Targeted speed limit enforcement purpose is to make drivers more aware of their speed within a residential area. This measure typically only provides a temporary benefit, since speed limit enforcement is not available on a regular, on-going basis.

The London Police work with the Transportation Division of the City in addressing speeding issues within residential areas.

Advantages:

- Does not require time for design
- Does not slow emergency vehicles
- Effective in reducing speeds in a short timeframe
- Automated speed studies can determine best enforcement times

Disadvantages:

- Effectiveness may be temporary
- Expensive to maintain a continued program of enforcement
- Fines lower than enforcement cost
- Time and resources constrained



Speed Display (PEEP)

A dynamic speed display sign performs the same function as a radar trailer, but is meant to be installed as a permanent device. Real-time speeds are relayed to drivers and flash when vehicle speeds exceed the posted speed limit. Dynamic speed display signs are typically placed in on a street for a period of 1 week. The City has two sets of mobile units which are rotated through a number of locations during the spring, summer and fall. A higher priority is placed on locations with younger or older pedestrians.

Advantages:

- Inexpensive
- Does not require time for design
- Does not slow emergency vehicles
- Effective in reducing speeds in a short timeframe

Disadvantages:

- Requires power source
- Only effective for one direction of travel
- Long-term effectiveness is uncertain
- Subject to vandalism



On Street Parking

All roads within residential areas are built wide enough to allow on street parking on at least one side of the road. Area residents often create the opportunity to speed by introducing No Parking zones. Eliminating parked vehicles from your street significantly increases the width of the road and will increase the speed of local traffic. There have been studies done in North America which have shown the introduction of a No Parking zone increased the speed of traffic by 20%.

The City now warns all residents who request No Parking zones they run the risk of increasing the speed on their street. If a speeding problem is identified on your street the City may consider asking residents to consider reintroducing on street parking as a low cost way to address the problem.



Road Watch Program

The Road Watch Program is a community initiative that gives residents and visitors an opportunity to report dangerous and aggressive drivers to the police. Within the City of London, Police operate the Road Watch Program and Citizen Report Forms are available at all City of London Police Stations or they can be obtained at www.london.ca.



Road Diet

A road diet refers to using pavement markings to make the travel portion of the road narrower, typically introducing bike lanes and or parking lanes. Passive speed control measures such as pavement markings attempt to change the fundamental sensory information available to drivers to influence their speed behaviour. By adding markings to the road, drivers' perceptions can be distorted creating the illusion that they are driving faster than they really are, persuading drivers to slow down. Additionally, the new road markings can serve as a warning sign; because these pavement patterns are mostly unfamiliar to road users, they violate driver expectancy causing motorists to decelerate.



APPENDIX B

Traffic Calming Form Letters



London
CANADA



300 Dufferin Avenue
P. O. Box 5035
London, ON
N6A 4L9

Date:

To: Resident/Homeowner

Re: Neighbourhood Traffic Calming Review Petition

Thank you for your interest in traffic calming. We have confirmed that your requested location meets the traffic calming initial screening criteria which indicates that your location may be eligible for traffic calming. Therefore, you may proceed with the next step in the process which is to complete the Neighbourhood Traffic Calming Review Petition (attached). Completion of the petition is an important step in the process to determine if your neighbours support your request for a traffic calming review.

Restoring neighbourhood streets to their intended function and improving overall liveability are primary objectives of traffic calming. In order to achieve these objectives, community involvement and support is paramount. Throughout the process, residents are encouraged to participate in the development of a traffic calming plan suitable to the neighbourhood and the concerns within it. Please see the attached Traffic Calming Process Flow Chart for a step-by-step outline of the process.

If your submitted petition receives the required minimum support from residents, a traffic calming review will be initiated for the requested roadway. The results of the petition must show support from at least 25% of the households with direct frontage onto the roadway to be investigated. If the traffic calming review determines that traffic calming is warranted on your roadway, City staff will determine the type(s) of traffic calming measures most suitable to resolve issues particular to your roadway and will proceed through the traffic calming process.

Please request that residents read the attached 'Petition Letter' to help them gain a better understanding of the rationale behind the petition, before they sign it.

If you have any additional questions or comments please contact the undersigned.

Yours truly,

Mark Ridley, Sr. Technologist
Transportation, Planning & Design
Environmental & Engineering Services

The Corporation of the City of London
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Fax: 519-661-4734
mridley@london.ca
www.london.ca



London
CANADA

300 Dufferin Avenue
P. O. Box 5035
London, ON
N6A 4L9

Date:

**PETITION LETTER
IMPORTANT INFORMATION REGARDING
NEIGHBOURHOOD TRAFFIC CALMING REVIEW PETITION**

Please read before signing petition

The City of London has supplied this petition to a concerned resident who is interested in initiating a traffic calming review at the following location:

London Staff Note: Insert Street Name and extents (to/from) before sending and attach policy

To initiate a review of whether or not the above-noted street warrants traffic calming, a petition, indicating support, is required. The City of London has provided the attached copy of the traffic calming petition and the City's Traffic Calming Policy to the resident initiating the request for a review. The focus of the petition is to determine if there is support from adjacent residents for City staff to perform an investigation of traffic concerns on the above-noted roadway.

The results of the petition must show support from at least 25% of the households with direct frontage onto the roadway to be investigated. Each household is represented by one signature, regardless of the number of people in the household (an apartment/condo would count as one household). Failure to meet the 25% support level will result in termination of the investigation. Please note that you should indicate on the petition whether or not you support the request for a review. If you are neutral and do not feel strongly either way, please check off the 'neutral' box: neutral answers will be considered as not supporting the initiation of a review.

Initially passive measures will be used by the City for a 1 year period in an attempt to address the identified operational traffic issues.

If the outcome of the City's 1 year review indicates the problem still exists than physical traffic calming measures are warranted, all affected residents (households), as determined by the City, will have the opportunity to indicate whether or not they support any future proposed physical traffic calming measures. After the City develops a traffic calming plan, the City will conduct a public meeting to explain the plan, at which point residents will have the opportunity to provide their input. Following the public meeting, the traffic calming plan will be modified, as required, and the City will then deliver a Community Support Survey to all affected residents to determine the level of support for the specific traffic calming plan.

If you have any additional questions or comments please contact:
Mark Ridley, Sr. Technologist, Transportation, Planning & Design ,
Environmental & Engineering Services Dept. (519) 661-2500 ext. 4736

The Corporation of the City of London
Office: 519-661-2500 Ext. 4736
Fax: 519-661-4734
mridley@london.ca
www.london.ca



300 Dufferin Avenue
P. O. Box 5035
London, ON
N6A 4L9

**PETITION LETTER
IMPORTANT INFORMATION REGARDING
NEIGHBOURHOOD TRAFFIC CALMING REMOVAL PETITION**

Please read before signing petition

The City of London has supplied this petition to a concerned resident who is interested in initiating a traffic calming removal petition at the following location:

London Staff Note: Insert Street Name and extents (to/from) before sending and attach policy

To initiate a review of whether or not the above-noted street warrants traffic calming removal, a petition, indicating support, is required. The City of London has provided the attached copy of the traffic calming removal petition and the City's Traffic Calming Policy to the resident initiating the request for a review. The focus of the petition is to determine if there is support from adjacent residents for City staff to perform an investigation to remove the traffic calming devices

The results of the petition must indicate a 50% response rate from impacted residents and show support from a minimum of 60% of the households with direct frontage onto the roadway to be investigated. Each household is represented by one signature, regardless of the number of people in the household (an apartment/condo would count as one household). Failure to meet the 60% support from 50% of the impacted residents will result in termination of the investigation. Please note that you should only sign the petition if you agree the devices should be removed.

If a request to remove a single traffic calming device, within an overall traffic calming plan, is received, all traffic calming devices will be considered for removal. Depending on circumstances, it could be possible to remove a single device constructed as part of an overall plan, however, in most cases all devices work together to be effective and to ensure that traffic is not diverted where it should not be. The City reserves the right to remove traffic calming measures if it determines that they are ineffective or unsafe, or if they have created a negative impact that cannot be corrected. The City will mail out a notification and advertise in local newspapers informing of its decision to remove traffic calming measures

If traffic calming devices are removed, the subject street must wait at least 5 years before requesting a new traffic calming plan; at this point the approval process will start over.

If you have any additional questions or comments please contact:

Mark Ridley, Sr. Technologist, Transportation, Planning & Design ,
Environmental & Engineering Services Dept. (519) 661-2500 ext. 4736

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300 Dufferin Avenue
 P. O. Box 5035
 London, ON
 N6A 4L9

London
CANADA

Traffic Calming Removal Request

Citizen Representative Information

Name: _____ Street Address: _____

Telephone: _____ Email: _____

Signature: _____ Date: _____

The Citizen representative is requesting that the City of London consider the removal of traffic calming measures along the following roads:

_____ between _____ and _____

_____ between _____ and _____

_____ between _____ and _____

Select the concerns that apply and provide a brief description of the concerns

- | | | |
|---------------------------------------|--|--|
| <input type="checkbox"/> Speeding | <input type="checkbox"/> Traffic Volumes | <input type="checkbox"/> Cut-through traffic |
| <input type="checkbox"/> Crashes | <input type="checkbox"/> Pedestrian Safety | <input type="checkbox"/> Bicycle Safety |
| <input type="checkbox"/> Large Trucks | <input type="checkbox"/> Other | |

Brief Description of Concerns:

The undersigned concur with the request for the removal of traffic calming measures made by the citizen representative. Only one signature per property is permitted. In order for this request form to be reviewed, a minimum of 50% response rate with 60% in favour are required from property owners. Any signatures without valid addresses will be voided. This petition can only be circulated to homes contacted as part of the original traffic calming survey.

Name	Street Address	Signature

The Corporation of the City of London
 Office: 519-661-2500 Ext. 4736
 Fax: 519-661-4734
mridley@london.ca
www.london.ca

APPENDIX C

Traffic Calming Point Assessment



London
CANADA



300 Dufferin Avenue
 P. O. Box 5035
 London, ON
 N6A 4L9

TRAFFIC CALMING POINT ASSESSMENT				
Location:			Date Compiled:	
Roadway Type:	<input type="checkbox"/> Local	<input type="checkbox"/> Collector		
Traffic Data				
	Feature	Range	Criteria	Total
1.	Speed	0 to 35	5 points for every 2 km/h that the 85 th percentile speed is greater than 10 km/hr over the speed limit	
2.	Volume	0 to 20	Local Roadways: 5 points for every 1,500 ADT Collector Roadways: 5 points for every 2,000 ADT	
3.	Short-Cutting Traffic	0 or 15	5 points if there is a presence of 25% or more short-cutting traffic, additional 5 points for every 10% increment above 25%.	
4.	Collisions	0 to 10	1 point for every 2 collisions/year over a 3 year period	
Road Characteristics				
	Feature	Range	Criteria	Total
5.	Sidewalks	0 or 10	10 points for no sidewalks with evidence of pedestrian activity, 5 points for sidewalks on only one side	
6.	Pedestrian Generators	0 to 15	5 points for each nearby* pedestrian generator such as a school, playground, community centre, libraries, retail centres, etc.	
Total*				
Does the location meet the minimum requirements				
<ul style="list-style-type: none"> Local roadway = minimum 35 points 				
<ul style="list-style-type: none"> Collector roadway = minimum 52 points 			<input type="checkbox"/> YES	<input type="checkbox"/> NO

The Corporation of the City of London
 Office: 519-661-2500 Ext. 4736
 Fax: 519-661-4734
 mridley@london.ca
www.london.ca



APPENDIX C

Traffic Calming Point Assessment

London
C A N A D A



300 Dufferin Avenue
 P. O. Box 5035
 London, ON
 N6A 4L9

TRAFFIC CALMING POINT ASSESSMENT

Location:

Date Compiled:

Roadway Type:

Local

Collector

Traffic Data

	<u>Feature</u>	<u>Range</u>	<u>Criteria</u>	<u>Total</u>
1.	Speed	0 to 35	5 points for every 2 km/h that the 85 th percentile speed is greater than 10 km/hr over the speed limit	
2.	Volume	0 to 20	Local Roadways: 5 points for every 1,500 ADT Collector Roadways: 5 points for every 2,000 ADT	
3.	Short-Cutting Traffic	0 or 15	5 points if there is a presence of 25% or more short-cutting traffic, additional 5 points for every 10% increment above 25%.	
4.	Collisions	0 to 10	1 point for every 2 collisions/year over a 3 year period	

Road Characteristics

	<u>Feature</u>	<u>Range</u>	<u>Criteria</u>	<u>Total</u>
5.	Sidewalks	0 or 10	10 points for no sidewalks with evidence of pedestrian activity, 5 points for sidewalks on only one side	
6.	Pedestrian Generators	0 to 15	5 points for each nearby* pedestrian generator such as a school, playground, community centre, libraries, retail centres, etc.	

Total*

Does the location meet the minimum requirements

- Local roadway = minimum 35 points

- Collector roadway = minimum 52 points

YES

NO

The Corporation of the City of London
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 Fax: 519-661-4734
 mridley@london.ca
www.london.ca

Agenda Item # Page #

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Appendix "B"

Summary of Traffic Calming for Other Municipalities

Summary of other Municipality Traffic Calming Policies - Participation & Speed

Municipality	Warrant	Minimum % Participation	Speed Warrant	Considerations	Missing
Toronto	Yes 3 part petition, safety, technical	Minimum 25% initiated by Council member following PIC or a petition	85th > 10km/hr over speed limit if 85th 15 km/hr over drop volume warrant	To be implemented 50% plus 1 respond with 60% in favor (Safety warrant reviews sidewalks, road grade, emergency response) Technical (speed, volume, block length, transit) ranking system to establish priorities	Policy does not address cut through traffic. Old references to 1998 TAC manual.
Region Waterloo	Yes	40% (60% in favour)	Same as Toronto	Basically copied Toronto's warrant	
Surrey B.C.	Yes	10 or more to start	Same as Toronto	Will specifically study school zone if school asks Everything currently on their approved list is a school zone	
Winnipeg	Yes	70% in favour	Av Spd must be > 50 km/hr	Had issues with small traffic circles	
Niagara	Yes	51% in favour	85th > 10km/hr over speed limit	Both warrants must be met to initiate	
*Ottawa	Yes	10 houses or 25%	Use 40 km/hr zone	Use the term Area Traffic Management (ATM) not T.C.	
Hamilton	Yes	70% direct & 50% indirect	85th > 8km/hr over speed limit 85th >15 km no volume warrant Local volume >750 day Sec Coll. 2500- 5000 day	Has to be Local or Secondary collector. Must be at least 50 km/hr. Must not be primary emergency route. Grade must not exceed 5%. Block length 200m Sidewalk one side.	Adjacent streets weighing in too high.
Aurora	Yes	70% in favour	85th> 15km/hr over 7 days	Also looks at grades, block length, transit, sidewalks etc.	
Windsor	Yes	66% of 40% response in favour	85th>10km/hr over speed limit with extra points for every km over 10 to max of 20 points	To review volume use WALTS, bike route, collisions, pedestrian generators all reviewed. Second warrant for collectors using different scoring. Scoring determines what type of TC measures, example 21<36 signing, 36<56 horizontal deflection.	Scoring is based on TAC guide, which is out of date. Good examples in Appendix F
Oakville	Yes	50% in favour	85th>10km/hr over speed limit Also have high end warrant for % in excess of 15 km/hr	40 of 78 approved areas are school zones. Call it Traffic Calming Process not Policy. Police offer 3 enforcement programs. Ranking system. Use 40 km in school zones. Ranking system to establish priorities.	Only really evaluates speed. Use passive traffic calming, well received by public. Once they identify a problem, City undertakes work to mitigate liability.
Milton	Yes but City prescreens to identify problem first	Petition must have 51% in favour. For plan to be implemented must receive 25% response with 60% in favour	85th>15 km/hr over limit	Point system also looks at volume, short cutting, collisions, sidewalks and pedestrian generators. Design presented at PIC. List what is NOT TC. Have good pictures and descriptions. Point system determines ranking. Acknowledge on street parking as a tool.	References TAC which is out of date

The chart above summarizes what 11 other municipalities are doing for traffic signal warrants the three main points that jump out:

- 1) All municipalities are polling the neighborhood through some fashion to ensure community support of at least 25% before anything is started
- 2) The City of London's speed warrant is lower than all other municipalities except for Ottawa who has adopted the 40 km/hr zone
- 3) All other municipalities rank traffic calming projects to establish priorities

*Ottawa incurred a backlog of \$8 million in approved traffic calming projects due to the way complaints were managed.

Agenda Item # Page #

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Appendix "C"

Summary of Comments from Other City Departments

Department	Comments
Road Operations	<p>Traffic Operations asked that a step be added which would allow them to review proposed Traffic Calming Plans to ensure it would not impact their ability to do their job. They also stated they prefer speed cushions and raised intersections over curb extensions and center medians.</p>
Planning/Urban Design	<p>Urban Design has reviewed the Draft Traffic Calming Policy Manual and has the following comments:</p> <ol style="list-style-type: none"> 1) Controlling traffic speeds begins with good street design. Streets that are designed for pedestrians result in slower traffic. Street trees, street furniture, and buildings that address the street provide enclosure and create the perception of a narrower road, which slows traffic. 2) The main purpose of reducing traffic speeds is to protect vulnerable road users. Clear pedestrian priority should be provided at all crossings. It is preferred that pedestrian crossings are constructed from a different material and colour from that of the travel lane. 3) When creating additional pedestrian crossings through a traffic calming technique, such as in the “curb extension,” the crossings should be coordinated with the surrounding properties to create the most direct pedestrian path possible. New street crossings should align with previously established pedestrian paths to achieve this. 4) Please consider providing photos that use examples of pedestrians and sidewalks. In particular, the photo of the “raised intersection” on page 22 is not an ideal situation. In this case, there are no sidewalks and the area of the intersection where a pedestrian would cross is the sloped portion of the raised intersection, which is not appropriate. In this instance, it is particularly important in the photo to show sidewalks, since providing pedestrians with a more visible connection is listed as an advantage of this method. 5) When implementing traffic calming measures that change the street network, it is extremely important to retain direct pedestrian and cyclist connections. This is particularly important with the implementation of diverters and full closers. 6) Restoring the intended character of a street should be included in section 1.4 Traffic Calming Objective & Purpose as an objective for implementing traffic calming measures. The intended character of a road and whether it is achieving this character should be reviewed in the early stages of the assessment process, and this may be included in section 4.3 Data Collection. In addition, consideration for the character of the street should be included in 4.9 Detailed Traffic Calming Design. If a traffic calming measure is to be implemented, it is important to ensure that the street character is retained. 7) Section 4.3 Data Collection should include a review of the built form along the street including the siting and the location of the principal pedestrian entrances of the buildings.

Department	Comments
<p>Community Services/Neighbourhood, Children</p>	<p>I think this policy document will be very useful in even our future discussions with neighbourhoods around safety and infrastructure. It not only provides great information and education on a specific topic but it can also serve as a way to showcase the thoughtfulness that goes into the decision making that staff do every day (not something that we are always able to demonstrate when we are discussing a specific problem on a specific street to a specific individual who may not agree with our decisions or recommendations).</p> <p>Below are some of my thoughts on how to make this document more useful to residents:</p> <p><u>INTRODUCTION / BACKGROUND</u></p> <p>I would really like see the introduction section be less confrontational and more of a vision of what we want our streets to be like. You could do this by providing a direct linkage to Smart Moves which focuses on “improving mobility for residents by providing viable choices through all modes of travel”. Then state something like: The City of London is responsible for ensuring our existing roadways serve the needs of all users (cars, transit, pedestrians, cyclists, emergency vehicles, snow clearing, residents who live on the streets – are there others?).</p> <p>Then lead into discussion of Traffic Calming specifically by framing the need for a policy by saying: When rules of the road are not followed sometimes residents no longer feel safe walking or riding their bikes on the streets and in these cases traffic calming measures may need to be employed – then define what traffic calming is and why we need a policy – definition, objectives and purpose (all items currently within the document are good – bringing these forward would help frame the whole discussion better I think). You might want to include a line that recognizes or even invites residents to participate in making their neighbourhoods safer like including a line like... sometimes the best information comes from residents that live and travel on our streets and we have developed this process to deal with their concerns in a transparent and consistent way.</p> <p>I would suggest adding to the purpose of this document by saying something like: this could be used as a way to educate residents about various traffic calming methods in order to better understand the City’s decision making processes and where and when certain measures might be appropriate.</p> <p>When you get to the process piece you could frame your discussion around the selection of appropriate measures and being upfront about our obligation to be fiscally responsible and looking at no cost/lost cost options first (more passive) then moving to progressively more costly, physical traffic calming measures where appropriate.</p> <p><u>Body of Policy</u></p> <p>I would like to see more information presented around our “lessons learned” from other municipalities and from our own experience. For</p>

Department	Comments
	<p>many of the advantages and disadvantages reported in section 1.5 and Appendix there are a number of statements that could be construed as conjecture and personal opinion. I would like to see more discussion and explanation of some of these – for example, instead of saying “May be damaged by snow plows” this could be expanded to explain how – required to life blades and complete clearing cannot take place (in case of speed cushions) or turning radius of plows could be impeded and need to be considered in the case of curb extensions. If this further explanation is included you will then get away from the “confrontational” feel of the report - right now it feels like a long list of reasons <u>not</u> to do something as opposed to things that need to be weighed in the decision making process. This I think would provide residents with a greater feel for the actual decisions and thoughtfulness that staff <u>do</u> put into the decision making process. There is a fine balance to providing too much information but here’s your chance to inform the public about how you work.</p> <p><u>Public Input</u> In terms of the public input I would like to see some onus put back onto the 25% that petitioned for traffic calming to engage other residents on their street to participate in completing the survey and attend a public information meeting.</p> <p>I would also like to see a process built in whereby, not only are the impacted residents (those that live on the street under review) engaged in the discussions, but the larger neighbourhood as a whole. There is considerable neighbourhood benefit to traffic calming that needs to be considered in some way. At our meeting we discussed engaging residents within a larger radius from the street in question which is great, but I would also like to see a formal mechanism of informing neighbourhood or community associations and inviting comment from them as well. Perhaps Corporate Communications can develop a process to create a list of legitimate associations that could be notified? (we could help with this)</p> <p>I agree there needs to be consistency between processes and if we can consider support levels similar to those required for community improvement projects (i.e., 51% support) I believe it will allow us to be improve our consistency in our decision making and I also think this makes the process simpler for residents to understand. Why would we invest in a solution if a minimum of 30% of all the residents on a street are asking for it?</p> <p>Thanks again for the opportunity to participate in the discussion</p>
Development Services	<p>Development Services would like to see a “vision statement” added of what traffic calmed street looks like and emphasis that this document is for retrofit situations not new developments.</p>