

Traffic Calming

Greenfield Tool Box

✓ DESIGN..... Site Configuration
 PROCESS
 IMPLEMENTATION



Credit | Creative Commons | Richard Drdul

Curb extension



TOOL DESCRIPTION

Traffic calming is the combination of different measures intended to slow or reduce the negative effects of motor vehicle use to improve conditions for local residents, as well as pedestrians and cyclists sharing the street. New developments provide an opportunity to incorporate traffic calming measures into a subdivision rather than adding corrective measures afterward.

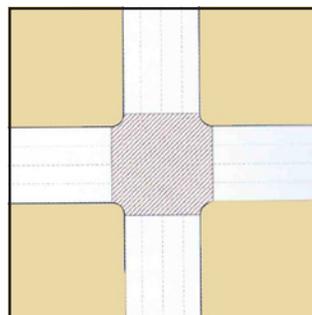
Traffic calming measures can be divided into four different categories: vertical deflection, horizontal deflection, obstruction, and signage and other feature elements.

Vertical deflection

- › **Speed hump (“sleeping policeman”):** Rounded raised areas placed across the roadway.
- › **Speed table:** A flat-topped speed hump which is long enough for the entire wheelbase of a vehicle to rest on the flat section.
- › **Speed cushion:** A speed hump that is narrower, allowing buses and large vehicles to travel over without slowing as much as other vehicles.
- › **Raised crosswalk:** A marked pedestrian crosswalk located midblock or at an intersection, and constructed at a higher elevation.
- › **Raised intersection:** A marked intersection, including crosswalks, constructed at a higher elevation.
- › **Textured crosswalk:** A crosswalk with a textured or patterned surface which contrasts with the roadway.



Raised crosswalk
 Credit | Creative Commons | Transportation for America



Textured and/or raised intersection
 Credit | O2 Planning + Design Inc. | Modified from The Language of Towns & Cities, A Visual Dictionary, Dhuru A. Thadani.

Tool Intent

To address impacts of traffic on neighbourhoods (typically with regards to traffic speed) to promote a more walkable and bikeable community.

Traffic calming measures are typically implemented by municipal transportation departments. Planners and designers, informed by transportation engineers, should integrate complementary traffic calming measures into new development at the design stage.

USERS

- ✓ **Municipal Officials**
- ✓ **Municipal Planning Staff**
- ✓ **Planning + Design Professionals**
- ✓ **Engineers**
- ✓ **Land Developers**
- Landowners**
- Community Members**

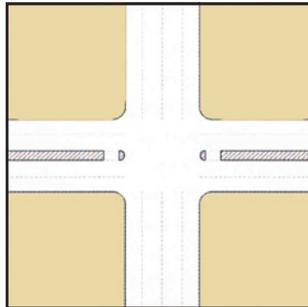
Horizontal deflection

- › **Curb extension:** A horizontal intrusion of a curb into a roadway which narrows traffic lanes and reduces pedestrian crossing distances.
- › **Median island:** A raised island in the centre of the road which narrows traffic lanes and provides a safe refuge for pedestrians crossing the street.
- › **Chicane:** A series of curb extensions on alternating sides of a roadway which reduces the road width and requires drivers to steer from one side of the roadway to another.
- › **Corner radii reduction:** The reduction of the radii of street corners, typically less than 8 m. The radius of street corners affects traffic turning speeds as a tighter radius forces drivers to reduce speed.
- › **Traffic circle:** A raised island in the centre of an intersection which requires vehicles to travel in a counter-clockwise direction around the island.
- › **Roundabout:** Similar to a traffic circle, but typically used on major and collector roads. They are distinguished by yield signs and raised median islands.
- › **On-street parking:** Parking along a roadway which reduces the roadway width available for traffic movement.

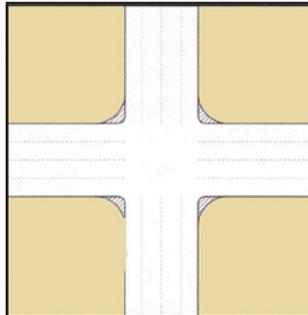


Curb extension acting as a rain garden

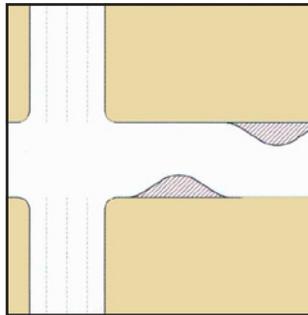
Credit | Creative Commons | gregraisman



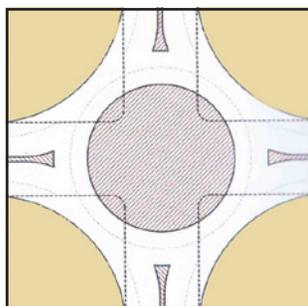
Median island



Corner radii reduction



Chicane



Roundabout

Credit | O2 Planning + Design Inc. | Modified from *The Language of Towns & Cities, A Visual Dictionary*, Dhuru A. Thadani.

Important considerations:

- › Experts familiar with traffic calming measures should be involved in the planning and implementation phases.
- › Traffic calming projects should support objectives such as enhancing street aesthetics, improving walking and cycling conditions, and controlling traffic speed.
- › A variety of traffic calming measures should be considered, rather than relying on a single type, such as speed tables.
- › Planning for traffic calming measures should include adequate public engagement.



Credit | Creative Commons | Alexabboud

Obstruction

- › **Directional closure:** A curb extension that extends to approximately the centreline of a roadway to obstruct one direction of travel.
- › **Raised median islands through intersections:** An elevated median located on the centreline of a two-way roadway through an intersection, which prevents left turns and through movements to and from the intersection roadway.
- › **Intersection channelization:** A raised island located at an intersection, which is designed to obstruct specific movements and direct traffic through an intersection.

Signage and other feature elements

- › **Street trees:** Trees planted along a street create a sense of enclosure and improve the pedestrian environment.
- › **Lighting poles:** Lighting poles that have a pedestrian scale increase the walkability of an area and send a signal to drivers that it is a pedestrian friendly environment.
- › **Traffic calmed neighbourhood signage:** In addition of traffic calming measures, signs can be installed at the entrance of a neighbourhood to warn motorists to reduce speed.

WHEN IN THE PROCESS IT IS USED?

Traffic calming measures can be applied when planning and designing a new development. During the development approval process, a local municipality should ensure that the proposed measures are sufficient and appropriate to meet traffic safety goals. Certain measures can also be included at later stages in the process.

A local municipality may include traffic calming into their policy documents to promote the use of these measures at the planning stage of developments, and guide deployment in existing development.

POLICY SUPPORT

The City of Calgary Traffic Calming Policy

The City of Calgary developed a Traffic Calming Policy which provides a clear direction on the type of measures to be considered in Calgary. It is intended to address existing situations, but it can be used as a tool box when designing new developments. The document presents goals and objectives, principles, process to respond to issues, and a series of traffic calming measures.

Town of Irricana Municipal Development Plan Transportation Policies

7.1.2 Traffic Calming

Traffic calming measures shall be considered where appropriate to increase safety and enhance the liveability of the community.

LOCAL APPLICATION

Currie Barracks, Garrison Woods, and Garrison Green, Calgary



Credit | 2010 Google Earth™

These developments incorporate traffic calming measures such as a modified grid pattern, narrower roads, street trees, curb extensions, and roundabouts.

RELATED TOOLS

Block and Lot Standards

Complete Streets

LID + Green Infrastructure

Walkability Audit

Bikeability Audit

ADDITIONAL RESOURCES

Victoria Transportation Policy Institute – Traffic Calming (<http://www.vtpi.org/tadm/tadm4.htm>)

The City of Calgary – Traffic Calming Policy (http://www.calgary.ca/DocGallery/BU/trans_planning/transportation_solutions/traffic_calming_policy.pdf)

Canadian Guide to Neighbourhood Traffic Calming, Canadian Institute of Transportation Engineers and Transportation Association of Canada, 1998.