# **Appendix C – Updated Toolbox of Traffic Calming Measures**

# Raised Crosswalk A marked pedestrian crosswalk at an intersection or mid-block location constructed at a higher elevation than the adjacent roadway Delineates the pedestrian and automobile space **Raised Intersection** A raised intersection is an intersection, that may include crosswalks, constructed at a higher elevation than the adjacent approach roadways Reduces vehicle speeds, better define crosswalk areas, and reduce pedestrian-vehicle conflict



### **Curb Extension/Choker**

- Widening of curb into roadway
- Slows vehicles making turns
- Reduce crossing distance for pedestrians
- Could be implemented at both intersections and mid-block locations

## Roundabout/Mini-Roundabout



- A roundabout is a circular intersection where drivers travel counter-clockwise around a centre island
- Aesthetically pleasing, while enhancing safety
- Already implemented in several locations in Oakville

Traffic Circle	An island located at the centre of an intersection, which requires vehicles to travel through the intersection in a counter-clockwise direction around the island
Speed Cushions	<ul> <li>Features a centre "knock-down" post allowing emergency vehicles to pass</li> <li>Slows passenger vehicles via a small speed hump on roadway</li> <li>Designed to accommodate wide wheel base of emergency vehicles</li> </ul>

Speed Humps	<ul> <li>A raised area of a roadway, which causes the vertical upward movement of a traversing vehicle</li> <li>Speed humps reduce vehicle speeds by making it uncomfortable to drive at high speeds</li> </ul>
Speed Kidney	<ul> <li>An arrangement of three speed humps elongated with a curvelinear shape in the direction of travel</li> <li>Vehicle drivers choosing to drive in a straight path will experience discomfort as two or four wheels traverse the different parts of the speed kidney</li> <li>Limited applications in North America</li> </ul>

Chicane	<ul> <li>Two or more alternating curb extensions that narrow a two-lane roadway to a one-lane roadway for a short distance</li> <li>Requires drivers to slow down and drive around them in serpentine pattern</li> <li>Used on local and minor roadways not designated as transit or primary emergency services routes</li> </ul>
Lateral Shift	<ul> <li>A lateral shift in a roadway occurs where an otherwise straight section is redesigned using pavement markings or curb extensions to create a curvelinear alignment</li> <li>Causes drivers to have to negotiate the alignment and increases awareness in attempt to reduce vehicle speeds</li> </ul>

# Raised Centre Median An elevated median constructed in the centre of the roadway Helps slow traffic without reducing capacity, while providing visual aesthetics Reduction in pedestrian-vehicle conflict

# Radar Speed Display Signs (RSDS)



- Display speed of vehicles to its driver via an electronic display
- Provides driver with feedback regarding vehicle operating speed
- Can be permanently or temporary installed



## **Pavement Markings**

- Pavement marking measures can influence drivers to reduce speed by drawing attention to a specific area or information
- Create optical effects that create the impression that the driver's speed is increasing
- Could include different kinds of speed reduction pavement marking such as: converging chevrons, dragon's teeth, full-lane transverse bars, peripheral transverse bars, and on-road sign pavement markings

# Automated Speed Enforcement (ASE)



- Fixed speed enforcement involves permanently installed radar cameras that photograph vehicles exceeding the speed limit
- Mobile speed enforcement involves radar photography units that can be moved depending on the need for speed enforcement