



RPT 21-77

TITLE: Traffic Calming Review

DATE: February 24, 2021

TO: Management Committee

PUBLIC: X

INCAMERA:

RECOMMENDATION:

That the Traffic Calming Policy be forwarded to Council for approval.

TOPIC & PURPOSE:

To review the City's Traffic Calming Policy.

PROPOSED APPROACH AND RATIONALE:

Management Committee Requests

The Management Committee asked Administration add the following to the Traffic Calming Policy

- That Council may be able to grant an exception for Traffic Calming installation on designated collectors which are next to Elementary Schools and Community Centers

They also asked for a review of the following.

- Other City's Traffic Calming Policies
- Rumble Strips
- Other Traffic Calming Devices
- The Cost of Smaller Speed Bumps

Traffic Calming General Information

Traffic Calming is typically installed to deal with excessive traffic speeds or excessive traffic volumes. It is important to note that the purpose of Traffic Calming is to restore streets to their intended function.

- Residential streets
 - Primary function is to provide access to adjacent properties for both vehicles and pedestrians. Residential Streets are not intended for use as through routes or as important links to move traffic within an area's overall road network.
- Low volume neighborhood collectors
 - Primary function is to provide access to adjacent properties for vehicles and pedestrians and is balanced by a need to collect and distribute traffic travelling into and out of a neighborhood. They are generally not intended to be through routes or to move significant amount of traffic within the road network.
- Designated Collectors
 - Primary function is to provide traffic movement and land access. They are intended as through routes to move the traffic collected from the residential neighborhoods.
- Designated Arterials
 - Primary function is to provide for traffic movement throughout the City. .

When Traffic Calming is installed on Residential and Low Volume neighborhood collectors, access is restored by slowing traffic down or reducing the volume of traffic travelling through the area. Traffic Calming measures will take into account restoring access to all road users of the residential and neighborhood collector streets to reduce conflict between users. Any Traffic Calming installed on a Collector or Arterial must allow it to continue to maintain it's basic function of moving traffic.

When people think of Traffic Calming they typically think of vertical or horizontal deflection permanently installed on the roadway. Things like speed bumps, or curb extensions or neck downs that force a vehicle to slow down to travel over or around an obstacle. These devices are appropriate for residential and low volume neighborhood collectors as the primary function of these roads are to provide access to adjacent properties and traffic movement is not a major consideration. However, when these devices are installed on Collectors and Arterials they are a hindrance to the streets main function of moving traffic and can result in shortcutting through neighborhood streets. Any restriction on a roadway meant to move traffic can result in vehicles taking a side street, reduced response time for emergency vehicles, more delays for transit etc... While there are things that can be done to reduce pedestrian conflict on these streets restricting the speed and the volume of traffic on streets meant for higher speeds and higher volumes to move traffic can cause problems on other neighboring street not meant to handle the speeds and volumes.

Other City's Traffic Calming Policies

Red Deer, Moose Jaw, Regina, Medicine Hat and Brandon were contacted to compare Traffic Calming Policies. Each of these Cities did not have a formal Traffic Calming Policy, however they utilized the Transportation Association of Canada (TAC) Canadian Guide to Neighborhood Traffic Calming.

Calgary, Saskatoon and St. Albert did have their own Traffic Calming Policies that listed the procedure for making a request, how the requests were evaluated, and how projects that met the criteria for Traffic calming would be prioritized and funded. While the process for making the request as well as how projects were prioritized in each City were different all Cities used similar if not the same criteria to determine whether Traffic Calming was warranted in the area requested. All Canadian policies referred to the TAC Canadian Guide to Neighborhood Traffic Calming.

Traffic Calming Evaluation Criteria				
Evaluation Criteria	Prince Albert	Saskatoon	Calgary	St. Albert
Speed	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Pedestrians	✓	✓	✓	✓
Community Support	✓	✓	✓	✓
Consultation with Emergency Services, Snow Removal forces, and Transit	✓	✓	✓	✓

Rumble Strips

Investigating the use of Rumble Strips for Traffic Calming devices was requested by the Management Committee. Administration used the TAC Canadian Guide to Neighborhood Traffic Calming to gather information on the use of Rumble strips as Traffic Calming devices.

Rumble Strips are raised buttons, bars or grooves closely spaced at regular intervals on the roadway that create both noise and vibration in a moving vehicle. The purpose of rumble strips are to alert motorists to unusual conditions ahead and are typically used at approaches to stop signs. In studies done to determine the effectiveness of Rumble strips as a Traffic Calming Device in Burlington, ON and Phoenix, AZ there was not any significant reduction in vehicle speeds. They also listed the noise created by the rumble strips to be an annoyance to the neighborhood surrounding the rumble strips.

Rumble Strips are not a recommended Traffic Calming Device for any type of roadway within the City of Prince Albert under the TAC guidelines.

Other Traffic Calming Devices

The City of Prince Albert has developed a list of potential Traffic Calming Devices and their appropriateness for different types of streets. The City has many different options for Traffic Calming when requested. No two situations will be the same and a combination of local knowledge, technical expertise and careful judgement must be used to select an appropriate measure or combination of measures.

Traffic Calming Measures		Residential Streets < 1500 AADT	Residential Collectors 1500 - 3000 AADT	Designated Collectors	Designated Arterials
Vertical Deflection	Speed Hump/Speed Table	✓	✓	x	x
	Speed Bump	x	x	x	x
	Raised Crosswalk	✓	✓	x	x
	Textured Crosswalk	✓	✓	x	x
	Rumble Strips	x	x	x	x
	Raised Intersection	x	x	x	x
Horizontal Deflection	Curb extension (Neck Downs)	✓	✓	✓	x
	Traffic Circle	✓	◇	x	x
	Raised Median Island	✓	✓	x	x
	Corner Radius reduction	✓	✓	✓	◇
	Chicane - 1 lane	✓	✓	x	x
	Chicane - 2 lane	x	x	x	x
	Forced Turn Island	✓	✓	x	x
	On Street Parking	✓	✓	✓	◇
Obstruction	Directional Closure	✓	✓	x	x
	Raised Median Barriers through intersection	✓	✓	◇	x
	Intersection Channelization	✓	✓	x	x
	Diverter	✓	✓	x	x
	Full Closure	✓	✓	x	x
	Signage	Turn prohibited	✓	✓	x
Through Traffic prohibited		◇	◇	◇	◇
One Way		◇	◇	◇	x
Maximum Speed		x	x	x	x
Yield		x	x	x	x
Stop		x	x	x	x
Speed Monitoring Signage		✓	✓	✓	✓
✓ = Appropriate Measures		x = Not Recommended		◇ = Use with Caution	

Speed Bumps

Speed bumps can be appropriate for parking lots not for City Streets. A smaller speed bump is jarring to vehicles no matter what speed they are travelling, where a well-designed speed hump or raised crosswalk with a longer top section are more comfortable for those travelling the speed limit, but still jarring for those travelling above the speed limit. The TAC guideline recommends a speed hump with a 4-7m length in order to provide that uncomfortable bump feeling, but without the jarring or damage that can occur with a shorter speed bump.

The smaller speed bumps installed on Riverside Drive are an example of why a larger speed hump is required. The Public Works Department has received numerous complaints about these speed bumps on Riverside Drive, but have not received any complaints about the Raised Crosswalks installed in other locations around the City of Prince Albert. The cost to install these small Speed bumps is \$1500 vs \$5000 to install the raised crosswalks.

Council Exceptions

The following section was added to the Traffic Calming Policy to allow Council to make an informed exception for Traffic Calming Installations that do not meet the Traffic Calming Criteria.

“Prince Albert City Council may at times disagree with the findings of administration with regards to whether Traffic Calming is warranted, or what type of traffic calming device should be used on a street. Council may request that administration provide additional reports to Council regarding other options. Council has the authority to make informed exceptions to the Traffic Calming Policy.”

Speed Monitoring

The Speed Monitoring signs were moved to their 8 new locations in January 2021. The counts were gathered in March and the data is attached to this report. Streets are being used as designed as the majority of traffic is travelling within +/- 5km of the speed limit the road was designed for. The only exception to this is Muzzy Drive, this road was designed as a collector to handle large amounts of traffic, but the speed limit is set at a residential speed. Muzzy Drive had more Traffic than 6th Avenue West during the same time period. The speed that people are driving on this roadway are more in line with a 50km/hr roadway.

PUBLIC NOTICE:

Public Notice pursuant to Public Notice Bylaw No. 24 of 2015 is not required.

PRESENTATION:

PowerPoint Presentation: Keri Sapsford, Transportation and Traffic Manager

ATTACHMENTS:

1. Traffic Calming Brochure
2. Traffic Calming Policy
3. Traffic Calming Presentation
4. Traffic Volume Map
5. Speed Count Map
6. Speed limit map
7. Radar Sign Data January to March 2021

Written by: Keri Sapsford, Transportation and Traffic Manager

Approved by: Director of Public Works & City Manager