
Traffic Control at Pedestrian Crossings Policy Update

Recommendation

That the Standing Policy Committee on Transportation recommend to City Council:
That the Council Policy 07-018, Traffic Control at Pedestrian Crossings updates based on the TAC Guide as outlined in this report be approved.

Topic and Purpose

The purpose of this report is to request City Council approval for the updated Traffic Control at Pedestrian Crossings Policy.

Report Highlights

1. The Transportation Association of Canada (TAC) has published a new edition of the Pedestrian Crossing Control Guide (Guide). The TAC Guide is intended to promote uniformity across the country with respect to the approach used in the provision of pedestrian crossing control.
2. Council Policy 07-018, Traffic Control at Pedestrian Crossings will be updated to reflect that the installation of appropriate traffic controls at pedestrian crossings shall be based on the TAC Guide.
3. A review of two intersections was completed following the process outlined in the TAC Guide to compare the results of the new decision process versus the existing warrant analysis.
4. A Traffic Control Catalogue has been developed to provide citizens with a reference on the various traffic control devices used in the City of Saskatoon.

Strategic Goal

This report supports the Strategic Goal of Moving Around as it improves the safety of vulnerable road users (pedestrians and cyclists), and helps provide a great place to live, work, and raise a family.

Background

City Council approved Council Policy C07-018, Traffic Control at Pedestrian Crossings in November 2004. This policy used a warrant system to identify whether a location would be eligible for an Active Pedestrian Corridor or a Pedestrian Actuated Signal. The warrant methodology considered a variety of factors, including:

- Street geometry and sight distance;
- School crossing;
- Pedestrian type (children, elderly or mobility impaired);
- Existing crossing device;
- Speed limit;
- Distance to nearest protected crosswalk;
- Pedestrian volume; and
- Vehicle volume.

Report

TAC Pedestrian Crossing Control Guide

The objective of the TAC Guide is to promote uniformity across the country with respect to the approach used in the provision of pedestrian crossing control.

The existing warrant system is dependent on pedestrians already using the crossing, not considering pedestrians that do not use the crossing because they do not feel safe. Therefore the existing warrant system has been used to identify whether a location is eligible for an Active Pedestrian Corridor or a Pedestrian Actuated signal and to provide a rational, defensible basis for decisions. The TAC Guide provides more flexibility by not limiting the decisions to strict, numeric warrant criteria.

Recent research incorporated in the TAC Guide concludes that installing unjustified traffic control devices promotes misuse or overuse for crossing control treatment, which may result in non-compliance with and/or disregard of traffic control devices. However, a strict, numeric warrant is not conclusive justification for the installation of a pedestrian crossing control device.

The latest version of the TAC Guide promotes a holistic perspective to the provision of pedestrian crossing control by incorporating both numeric criteria and qualitative engineering judgement into a systematic approach. This will help in supporting decisions concerning pedestrian crossing control, implementing crossing control, and monitoring and evaluating it over time, which provides flexibility to address unique local conditions.

The seven guiding principles for pedestrian crossing control are:

1. Safety – Devices should achieve a high level of compliance and minimize pedestrian exposure to vehicular traffic.
2. Delay – Delay experienced by pedestrians attempting to cross the road should be carefully managed.
3. Equity – Establishing equal access to the transportation network and system by providing for the movement of people as for vehicular traffic is fundamental.
4. Expectancy – Devices should meet driver expectancy, thereby increasing driver response.
5. Consistency – Ensures that devices are recognized, understood and used effectively by all road users.
6. Connectivity – Effective crossing opportunities should be provided to ensure system connectivity for pedestrians while considering proximity to other crossings, driver expectation, and safety of pedestrians.
7. Pragmatism – Practical issues or consequences associated with the provision of pedestrian crossing control devices (e.g. costs, ease of installation, maintenance) should be a consideration of installation.

The Decision Support Tools for the preliminary assessment and the treatment selection steps are included in Attachment 1.

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Pedestrian Crossing Control Device Review

To understand the implications of moving to the TAC Guide process, a review of the following two locations was undertaken:

1. Clarence Avenue & 14th Street; and
2. Preston Avenue & East Drive.

Both locations were reviewed for pedestrian devices under the existing warrant analysis procedure. Both locations have ground-mounted pedestrian crossing devices (i.e. signs and zebra pavement markings). A warrant analysis using the existing procedure was completed for both locations in the past year. The results are included in Attachment 2 and summarized below:

Pedestrian Crossing Control Device	Clarence Avenue & 14 th Street		Preston Avenue & East Drive	
	Points	Warrant Result APC warranted if APC > 2	Points	Warrant Result PAS warranted if PAS > 99
Active Pedestrian Corridor (APC)	0	Not Warranted	0	Not Warranted
Pedestrian Actuated Signal (PAS)	40	Not Warranted	29	Not Warranted

Both locations have been reviewed using the new TAC Guide process to determine whether a pedestrian crossing device is justified for these locations and, if so, the appropriate treatment selection. The results of the analysis are included in Attachment 3 and summarized below:

Preliminary Assessment Decision Point	Clarence Avenue & 14 th Street	Preston Avenue & East Drive
Traffic Signal Warranted	No	No
Average Hourly Pedestrian Volume ≥ 15 Equivalent Adult Units* AND vehicular volume ≥ 1,500 veh/day	No	No
Is this site > 200 metres from the nearest traffic control device?	Yes	Yes
Is average hourly potential pedestrian crossing demand ≥ 15 EAUs OR is there requirement for system connectivity?	Yes	Yes
Treatment Selection	Overhead Flashing device	Rapid Rectangular Flashing Beacon or Overhead Flashing device

As a result of the TAC Guide process, the identification of both locations as desirable pedestrian crossings has been confirmed and would be eligible for a pedestrian actuated device.

Prior to adding both locations to the list of pedestrian crossing devices for funding request, a site visit verification will be completed to ensure that the installation can be designed and installed to meet driver expectations. Geometric design components (i.e. curb extensions, curb corner radius, raised refuge) may also need to be considered to ensure the safety of crossing pedestrians.

The comparison in device selection for both locations demonstrates that moving to the TAC Guide would result in a significant change from our current warrant analysis policy. By considering potential pedestrian demand and road features for the crossing, the new policy approach would improve safe connections for Saskatoon's active transportation network and, in turn, would promote walking.

Options to the Recommendation

City Council may direct the Administration to continue using the existing policy. This option is not recommended as it is not in line with the latest version of the TAC Guide. The existing policy follows a strict, numeric warrant which new industry knowledge indicates is not conclusive justification for the installation of a pedestrian crossing control device.

Public and/or Stakeholder Involvement

The public and stakeholders will continue to raise pedestrian safety concerns by way of various communication methods available: calls, emails, community meetings, neighbourhood traffic reviews, etc.

Communication Plan

If approved, this policy will be posted to the City website and shared with key internal City agencies that handle special applications and liaise with the Community Associations.

A traffic control catalogue has been developed to inform residents of available pedestrian crossing and traffic control devices and how to request a traffic control device (Attachment 4). The traffic control catalogue will be posted to the City website.

Policy Implications

Council Policy C07-018, Traffic Control at Pedestrian Crossings requires updating as outlined in this report. A revised draft is attached (Attachment 5).

Financial Implications

Pedestrian crossing control devices are funded through Capital Project #2446 – Pedestrian Crossing Improvements. Current funding levels would allow for the installation of one or two pedestrian actuated devices per year.

Under the new policy, several additional locations, particularly on the arterial corridors, would be eligible for pedestrian actuated devices. Funding levels for Capital Project #2446 – Pedestrian Crossing Improvements would need to increase to install pedestrian crossing control devices for all justified locations.

The list of justified locations will be developed and submitted to support the annual funding requests during budget deliberations.

Environmental Implications

The overall impact of the recommendations on traffic characteristics including the impacts on greenhouse gas emissions has not been quantified at this time.

Other Considerations/Implications

There are no privacy and CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

If approved, the updated policy will be published on the City website.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

1. Pedestrian Crossing Control Guide - Decision Support Tools
2. Existing Pedestrian Warrant Analysis for Example Locations
3. New Decision Process for Example Locations
4. Saskatoon Traffic Control Catalogue
5. Updated Council Policy C07-018, Traffic Control at Pedestrian Crossings

Report Approval

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