

SER-009-017

Strathcona County
Municipal Policy Handbook

Traffic Control Devices

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Lead Role: Chief Commissioner

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Administrative Responsibility: Engineering and Environmental Planning

Special Notes:

- Cross Reference: Policy SER-009-021, Installation of Traffic Signals and Pedestrian Crossings addresses specifics of those noted devices.
- Traffic Control Devices Operational Procedures can be accessed in EDMS EEP Administration Library-0345/Doc. 37329/Traffic Control Devices Operational Procedures.

Policy Statement

This policy is designed to provide guidance to Administration and to the community on the placement and maintenance of traffic control devices, throughout the County to regulate, warn and guide both vehicular and pedestrian traffic. While referenced in this policy, specifics of traffic signals and pedestrian crossing installations are addressed in policy SER-009-021 Installation of Traffic Signal and Pedestrian Crossings.

Definitions

- A. Manual of Uniform Traffic Control Devices: The Manual of Uniform Traffic Control Devices for Canada (MUTCDC), published by the Transportation Association of Canada (TAC) is the principle guiding reference for installing traffic control devices. Conformance with that document and ancillary TAC publications ensures uniformity across Canada.
- B. Traffic Control Device: A traffic control device is a sign, signal, pavement marking or other device, placed upon, over or adjacent to the road, by a public authority or official having jurisdiction.

Guidelines

A. General

The objective of this section is to provide an overview of the operating parameters for traffic control devices in general and to additionally highlight the installation warrants, applications and guidelines for the more commonly used and topical traffic control devices. It would be beyond the scope of this policy to delve into a detailed discussion of each and every traffic control device. Information on specific devices that are not covered in the following text may be obtained by referencing the MUTCDC.

B. Traffic Control Device Objectives

Traffic control devices constitute a system for conveying messages to the road user. The objectives of these messages are to advise of traffic regulations to enable observance of the law, warn of road characteristics, road hazards and temporary conditions, and provide the information necessary for

route selection. Meeting these objectives improves safety, serves the convenience of the road user, and promotes the efficient movement of people and goods and the orderly flow of traffic. Simplification of the driving task through uniformity in the design and application of traffic control devices is necessary to accomplish these objectives.

C. The Role of Guidelines and Warrants

- 1) Guidelines provide information and background to assist in the decision making process and are necessarily general because they cannot cover all site-specific conditions. Warrants attempt to quantify site characteristics so that a site evaluation can be compared with threshold levels to ensure consistent and appropriate application.
- 2) Reference to guidelines and warrants is the initial step in the evaluation process. Within any decision process there will always be competing alternatives that must be considered to arrive at a “best” solution. Guidelines and warrants are an important part of the decision process but are not intended to be a substitute for good engineering judgement. The fact the warrant thresholds for a particular traffic control device are met is not conclusive justification for installation of the device, and vice versa. Where the word "warranted" or the word "unwarranted" is used in this policy, the decision making philosophy will be as described in this sub-section.

D. Conformance with Governing Acts, Regulations and Guidelines

Traffic control devices (consisting of regulatory, warning and informational traffic signs, traffic signals, railway crossing signs and signals, pavement markings and community information signs) will be placed and maintained in accordance with applicable Provincial Acts and corresponding regulations, (principally the Municipal Government Act, the Traffic Safety Act, the Public Highways Development Act and the Planning Act) and with relevant technical manuals, reports and informational publications.

E. Traffic Control Device Placement

The cardinal principle for the placement of traffic control devices is that they must:

- fulfill a need
- command attention
- convey a clear, simple meaning
- command respect of road users
- give adequate time for proper response

F. Intersection Control by Appropriate Traffic Control Devices

The relative priority between traffic streams will be defined at all intersections by one of the following three devices.

- 1) Traffic signals
- 2) Stop signs
- 3) Yield signs

Other intersections “non-device” treatments, like grade separations and round-a-bouts (traffic circles) are available options addressed in Strathcona County’s Engineering Servicing Standards.

G. Traffic Signals

Traffic signals will be installed if it can be shown that the objectives of Policy SER-009-021 are met.

H. Yield Signs

- 1) Yield signs are the preferred control at unsignalized intersections because stop sign control can result in unnecessary delay and irritation to motorists. Stop signs will not be used in urban areas where a yield sign will suffice.
- 2) However, on the higher speed rural road grid network, priority control will generally be restricted to stop signs unless traffic signals are warranted. High operating speeds on the rural road grid network, coupled with sightline restrictions, preclude the use of yield control.
- 3) In urban areas, hamlets and country residential subdivisions, yield signs will be installed on the minor street approaches at all intersections where traffic signals or stop signs are not warranted.

I. Stop Signs

- 1) Stop signs will be installed where traffic signals are not warranted and yield control is inappropriate. Stop signs will not be used for speed control or traffic diversion devices.
- 2) In addition, stop signs will be installed at all unsignalized railway crossings. The need to upgrade railway crossing protection will be reviewed on an ongoing basis to determine if revisions are required in accordance with Transport Canada guidelines.

J. "Stop Ahead" Signs

- 1) "Stop Ahead" warning signs will be placed in advance of stop signs if visibility of the stop sign is obscured or when collision experience indicates that advance warning is desirable.
- 2) The location of the "Stop Ahead" sign will be determined from onsite observations but, as a minimum, be placed beyond the stopping sight distance for the legal speed limit.

K. All-Way Stop Control

- 1) All-way stop control may be used at intersections where traffic signals are not warranted and minor street traffic experiences undue delay or the collision experience at the intersection is excessive. All-way stop control will only be considered when the warrants prescribed by the MUTCDC are met.
- 2) All-way stop control will not be introduced as a traffic-calming measure. Research has shown poor compliance at unwarranted all-stop locations, which in turn has a negative impact on safety and makes regular police enforcement a necessity.

L. Pedestrian Crosswalks

- 1) Pedestrian crosswalks are deemed to exist in law as the continuations of sidewalks across road intersections. At locations with concentrated pedestrian activity, it is desirable to clearly identify crosswalks and aid pedestrians in making their presence known to motorists.
- 2) A hierarchy of pedestrian crossing facilities has been established to ensure that resources for crosswalk control are placed where they are of greatest value, and to avoid randomly introducing facilities on a widespread basis without regard for actual need thereby fostering disrespect for warranted facilities.

- 3) Crossing protection hierarchy is dependant on traffic volume, pedestrian volume and other factors as described in the "Installation of Traffic Signal and Pedestrian Crossing" policy, SER-009-021.

M. School and Playground Zones

- 1) Traffic control in new school zone areas and playground areas will be evaluated based on the merits of consistency with the existing zone and speed reduction philosophies and practices in place in the community and with new and emerging standards and specifications such as the Province of Alberta document, "Guidelines for School and Playground Zones and Areas". Where a change in philosophy is recommended, Council may consider the recommendation and alter it as deemed appropriate.
- 2) Any recommended changes to the signing and/or speed reduction to existing zones based on professional or industry standards, guidelines or practices will follow the steps described in the Procedures section within this Policy.

N. Non-Standard Signs

The use of the Canadian MUTCDC standard signs is recommended to ensure consistency and conformity with regional and national standards. However, in some situations there is no MUTCDC standard sign that adequately conveys an intended message. In these instances, signs conforming to American MUTCD will be considered and used as a first option, and as a second option, signs conforming to local practice.

O. Pavement Line Marking

- 1) In the Rural Service Area, line marking decisions will consider:

- Road width
- Posted speed
- Site specific conditions

Rural roads with posted speeds of 80 km/hr or more and widths of less than 8.0 m are not normally good candidates for centre-line pavement marking. Under special circumstances centre-line marking may be considered without shoulder marking where the surface width is a minimum 7.5m.

- 2) In the Urban Service Area, centre-lines may be marked on:

- Urban roads wider than 11.5m when parking is permitted on both sides;
- Urban roads wider than 9.0m when parking is permitted on one side only;
- Urban roads wider than 7.0m when parking is not permitted;
- Collector roadways;
- Roadway bends that conform to the above width requirements plus 1m;
- Intersection approaches to major roadways;
- Railway crossing approaches.

- 3) Centre-line marking may be appropriate in conjunction with traffic-calming initiatives or at other locations where collision experience suggests that a centre-line is desirable.

P. Temporary Conditions

Temporary conditions (including temporary roads, lanes, accesses or traffic control devices) will be treated in accordance with this policy. Road construction and other construction on municipal road right-of-ways undertaken by the County, contractors, or other agencies are to conform to the requirements of the current versions of the Occupational Health and Safety regulations, and Part D –

“Temporary Conditions” of the MUTCDC.

Procedures

A. Authority for Placement of Traffic Control Devices

Traffic control devices will be approved and erected by direction of the Manager of Engineering and Environmental Planning or by direction from County Council.

B. Installation of Traffic Control Devices

Installation of approved traffic control devices may be undertaken, as the situation dictates, by Transportation and Agricultural Services, contractors employed by the County, or developers. The ultimate responsibility for placement and conformance with this policy rests with the Manager of Engineering and Environmental Planning.

C. Requests for Traffic Control Devices

- 1) Requests from Council, Councillors and/or members of the public or other stakeholders for new or augmented traffic control devices, or for modifications to existing devices, will be reviewed by Engineering and Environmental Planning and evaluated in the context of this policy and where appropriate, discussed with the community at large, school authorities, other civic and external agencies and County Council prior to implementation or other action. Within any technical process, such as placement of traffic control devices, there will be competing alternatives and differing perspectives that must be considered and rationalized.
- 2) Requests from members of the public will be copied to the Ward Councillor as information.

D. Authority for Changes to Existing Traffic Control Devices

- 1) Proposals to change or augment existing traffic control devices will generally be approved and erected by direction of the Manager of Engineering and Environmental Planning, but will be referred to Council when:
 - a) there is a history of public or Council involvement in recent times,
 - b) the Department can foresee that the proposal will have a severe adverse impact on another segment of the community,
 - c) such changes lie outside the general guidance provided by this policy, or
 - d) a resident, taxpayer or local interest group requests that the Department refer the matter to Council in the event that normal process has failed to result in a mutually satisfactory resolution.
- 2) In the event that a proposal is referred to Council, a recommendation will be made by the Manager of Engineering and Environmental Planning along with an explanation of alternatives including the merits and drawbacks of each alternative. Council may consider the recommendation and alter it as deemed appropriate.

E. Removal of Traffic Control Devices

- 1) Where a traffic control device no longer fulfills a need, or the device contravenes the intent of this policy, consideration will be given to removal or replacement with an appropriate device as the situation dictates. Specific examples would include stop signs that were installed instead of yield control to address sightline issues that have been resolved and all-way stop control installed to address speeding issues contrary to this policy.

- 2) Where removal of a device is expected to create significant public response, the item will be referred to County Council as outlined in "Procedures, Section D".
- 3) Unwarranted and nonconforming devices will be removed as funding allows or in conjunction with a roadway improvement project when feasible.

F. Review and Upgrading of Traffic Control Devices

The Engineering and Environmental Planning Department will monitor traffic levels and site conditions on an ongoing basis to assess the adequacy of existing traffic control devices or the need for upgrading.

G. Records of Traffic Control Devices

Engineering and Environmental Planning will maintain records of all signalized installations. Transportation and Agricultural Services, with support from Engineering and Environmental Planning, will maintain a record of all traffic control signs and pavement markings throughout the County.

H. Maintenance of Traffic Control Devices

Maintenance of traffic signs and pavement markings will be the responsibility of Transportation and Agricultural Services. Operation and maintenance of traffic signals and other signalized traffic control devices will be the responsibility of Engineering and Environmental Planning.