# Transportation Systems Management for the Sherwood Park Residential Area

Date of Approval by Council: January 14, 1985

Administrative Responsibility: County Engineer

Lead Role: Chief Commissioner

Last Review Date: 01/14/85

Resolution No: 22/85

Replaces: 60-62-013

**Next Review Date:** 

## **Policy Statement**

Transportation System Management (TSM) techniques will be applied in the Sherwood Park Urban Service Area to provide for orderly traffic circulation, to maintain satisfactory road safety standards and to protect the man-made environment from undue traffic impacts.

### **Procedures**

#### A. Definitions

Transportation Systems Management (TSM) for the purpose of this policy is defined as the use of traffic control devices and techniques other than normal traffic control devices. Typical TSM measures include, but are not limited to the following:

- road closures
- one-way systems
- traffic speed control devices
- transit priority measures
- turning and entry prohibitions
- parking controls, and
- road narrowing, for example.

"Normal" traffic control mechanisms such as traffic control and warning signs, signals and crosswalks, for example, will be provided on the entire road network as required.

B. The Sherwood Park Urban Service Area and Functional Classification of Road Sections

The TSM policy for the Sherwood Park Urban Service Area will be based on the Road Classification as shown in Figure 1 attached.

C. Definitions of the Functional Classifications of Roads

The definitions of the functional classifications enunciated by the Roads and Transportation Association of Canada in Chapter A of the manual entitled, Geometric design standards for Canadian roads and streets, will be used for the purposes of this policy.

It will be noted that this classification system is based on the function of the road within the road network and this classification has no prima facie bearing on design standards.

A summary of this system of functional classification is provided as Table A: Characteristics of Urban Road Classes, attached.

For the purposes of this policy, collector roads have been subdivided into major collectors and minor collectors based on the role of each road within the road hierarchy.

Major collector roads are defined as those collector roads for which the traffic service role is predominant over the land service role. Minor collector roads are those for which the land service role is predominant over the traffic service role.

In general, public transit will be operated on major collector roads, in accordance with transit policies, plans and procedures although it may be necessary or desirable to use minor collector roads in certain circumstances.

D. Road Standards for Sherwood Park

Road standards will be maintained, wherever possible, in accordance with the Roads and Transportation Association of Canada in Chapter A of the manual entitled, Geometric design standards for Canadian roads and streets, with respect to alignment, cross section and intersections.

Where, for historical or other reasons, these standards are not met for a particular road section steps will be taken to redress the shortcomings. Such steps may include road reconstruction and/or TSM techniques as appropriate to the circumstances.

The Administration will specify design standards for each road classification for use in future development projects. These design standards will highlight traffic lane widths, curb and gutter types and sizes, median widths, speed change lane dimensions and design speeds.

These standards will be reviewed from time to time in the light of provincial and national standards and practices. They will form an integral part of the County manual of land development standards.

#### E. Guidelines for the Implementation of TSM Projects

The objective of the guidelines is to maintain the characteristics of the road in accordance with its classification.

In the review and implementation of TSM projects the following guidelines and criteria will be applied:

- 1. The Engineering Services Department will maintain an ongoing review of the road network and its operation as the basis for the analysis, evaluation and implementation of appropriate TSM projects. The Department will also accept external requests for TSM projects and will deal with these as outlined in Section H.
- 2. All necessary and justifiable TSM measures will be implemented on arterial roads.
- 3. When the annual average daily traffic flow on a major collector road in a predominantly residential area reaches a threshold in the range 6000-8000 vpd, all necessary and justifiable TSM measures will be implemented.
- 4. When the average daily traffic flow on a minor collector road in a predominantly residential area reaches a threshold in the range 3000-4000 vpd, all necessary and justifiable TSM measures will be implemented.
- 5. TSM measures will be initiated on local residential streets where circumstances warrant.
- 6. TSM may be initiated on residential roads and streets at thresholds below the normal values quoted above in locations which exhibit undue traffic hazards or impacts which cannot readily be reduced to acceptable levels by normal traffic control and advisory signing.
- 7. TSM measures will not normally be implemented on collector and local streets in commercial and industrial areas, because relatively heavy flows of private and commercial vehicles are to be expected and these areas are designed to accommodate this traffic. Where unusual conditions exist, or develop, full consideration to appropriate TSM measures will be given.
- 8. The principles of TSM will be applied to the urban development process at the earliest possible stages of planning and throughout the planning process to ensure that potential problems are designed out of the road infrastructure.
- 9. The following factors will be incorporated into the evaluation and justification of the measures to be implemented on a particular road.
  - road classification
  - implications of the overall road network
  - traffic flows
  - traffic composition
  - traffic speeds
  - pedestrian activity
  - adjacent land uses
  - population density
  - activity density for non-residential land uses
  - parking requirements and practices
  - horizontal and vertical road alignment
  - road width
  - specific transit matters
  - general traffic impacts on the man-made and natural environment
  - economic and fiscal factors
  - safety
  - energy conservation
  - other site-specific considerations

- 10. Special consideration will be given in cases where one or more of the following conditions may apply:
  - a) structural weaknesses in the arterial and collector road network have focussed excessive traffic onto a particular road having regard to all relevant haracteristics
  - b) the functional classification of the road in question is not reflected in its design and operational characteristics, and
  - c) the long range development plans for Sherwood Park in general and the particular area in question were insufficiently defined to be of real assistance to residents at the time of purchase of property in the area.
- F. Implementation of TSM Projects

TSM measures will be implemented under bylaw number 293, which deals with traffic signing, or by the approval of specific projects by County Council.

G. Traffic Control Devices Associated with TSM Projects

Traffic control devices associated with TSM projects will conform in all respects to the manual entitled, Uniform traffic control devices for Canada, produced by the Council on Uniform Traffic Control Devices for Canada.

H. Public Participation in TSM Projects

Public participation will be encouraged on major TSM proposals prior to and during the design of a TSM project and also following implementation.

This procedure may be undertaken through public meetings and questionnaires as appropriate to the circumstances.

In the case of local streets the participation of residents only may be sought.

In the case of collector and arterial roads the participation of all residents of the Sherwood Park area may be sought.

The Engineering Department will take the lead role in this process with assistance as necessary from other departments and involvement of elected officials as appropriate.

The Engineering Department will attempt to determine a consensus of opinion. Where consensus is obtained the County Engineer will make a TSM decision and implement it within budgetary authority without further reference to senior administration or Council.

Where a consensus of all parties concerned on the preferred course of action is not attained in the public participation process, the County Engineer in conjunction with the Associate Commissioner of Municipal Operations will present the options, an evaluation of each and a recommendation for action to the Commissioners Team.

The Commissioner's Team, on referral, will review the options considered and the recommendations of the County Engineer and the Associate Commissioner of Municipal Operations. The Commissioner's Team will make the decision to direct implementation with amendments as deemed necessary or refer the matter to Council. All TSM decisions made by the Commissioner's Team will be advised to Council by an Information Report at the next convenient opportunity. All decisions of the Commissioners Team can be appealed to Council.

In the event that the Commissioner's Team directs implementation, the County's intention to implement the TSM project will be publicized. This will normally take place by way of a public notice in the local newspaper augmented, as deemed necessary by the Administration, by notification delivered to residents directly affected

In addition to an outline of the proposed implementation the notice will provide residents with

- 1. a telephone number to contact the County Secretary's office for information on the schedule of the Council meeting at which the matter will be addressed;
- 2. a telephone number to contact the County Engineer's office for technical information on the project; and
- 3. notification that residents may submit their views on the project in writing to Council through the County Secretary's office within a specified timeframe.

Normally the notice will be placed in the newspaper on two successive publishing dates and residents will be allowed 14 days from the later publishing date for submission for their views.

Where it is decided by the Commissioners Team that a project is to be referred to Council for determination, County Council in a properly constituted meeting, will determine the action to be taken.

Characteristics of Urban Road Classes				
	Urban Locals	Urban Collectors	Urban Arterials	Urban Freeways
Traffic service	Traffic movement secondary consideration	Traffic movement and land access of equal importance	Traffic movement primary consideration	Optimum mobility
Land service	Land access primary consideration		Land access secondary consideration	No access
Range of traffic Volume ADT	Not applicable	1,000 – 12,000	5,000 - 30,000	More than 20,000
Characteristics of traffic flow	Interrupted flow	Interrupted flow	Uninterrupted flow except at signals and crosswalks	Free flow
Average running speed off-peak conditions	20 – 30 km/h	30 – 50 km/h	50 – 70 km/h	70 – 100 km/h
Vehicle type	Passenger and service vehicles	All types	All types up to 20% trucks	All types up to 20% trucks
Connects to	Collectors locals	Arterials collectors locals	Freeways arterials	Freeways arterials
Source:	Roads and Transportation Association of Canada – Chapter "A" of Manual entitled <i>Geometric Design Standards for Canadian Roads and Streets</i> – Table A5b.			