

SER-009-030

Strathcona County
Municipal Policy Handbook

Road, Sidewalk and Parking Lot Network Maintenance

Date of Approval by Council: 06/15/99; 06/12/01**Resolution No.** 446/99; 434/2001**Lead Role:** Chief Commissioner**Replaces:** N/A**Last Review Date:** October 8, 2014**Next Review Date:** 10/2017**Administrative Responsibility:** Transportation and Agriculture Services**Special Notes:**

This policy addresses most maintenance scenarios. When unusual conditions occur, the Public Works branch of the Transportation and Agriculture Service department must use discretion and judgment in the application of this policy.

Policy Statement

In order to ensure the traveling public has a functional network of roads, parking lots and sidewalks in a financially achievable, cost effective and efficient manner, a system of assigning labour, equipment and materials shall be adopted. Levels of service will vary based on the network category.

Definitions

As needed: A statement which means that the level of service is not set at a predetermined number of activity occurrences per season or per year.

Financially achievable:

The standard of service is affected by the budget allocation available. It is intended that a minimum functional standard of condition – or better – will always be provided.

Functional: A term intended to mean that a reasonable standard of condition is maintained, based on the criteria of meeting design and safety objectives.

Hazard: Any abnormal feature or condition that poses a significant risk for conventional use of roads, parking lots or sidewalks. These may include but are not limited to:

- deep potholes
- large debris
- significant settlement
- severe washboard
- abrupt tripping edge (>12.5 mm)

Marking: Make the hazard visible to the traveling public so that they can reasonably avoid it.

Repair: Effectively remove the hazard.

Guidelines

1.0 Inspections

Inspections are an important part of this policy. Timely identification of hazards allows for appropriate repair. Inspections occur in a number of ways:

1.1 Public Works staff inspections

- Road maintenance staff travel the network inspecting for hazards. A pattern of inspections is followed such that busier locations are inspected more frequently. All locations are patrolled at least once per month.

1.2 Other service provider observations

- Many other service providers travel the network. They assist Transportation and Agriculture Services in meeting hazard inspection frequency guidelines. They include: RCMP; Emergency Services; Public Transit; Recreation, Parks & Culture; Planning & Development Review Services; and, Student Transportation.

1.3 Other network-user observations

- Businesses and the traveling public may report hazards. Transportation and Agriculture Services has staff on call, 24-hours per day.

2.0 Network Categories

2.1 Urban Service Area

- a) Arterial roadways¹
- b) Major industrial roadways
- c) Collector roadways¹
- d) Residential roadways¹
- e) Sidewalks and trails
- f) Municipal parking lots

¹ terms as defined by the American Society of Civil Engineers

2.2 Rural Service Area

- a) Reconstruction (Asphalt)²
 - major reconstruction, consisting Class I roadways
- b) Cold-mix²
 - improved and unimproved grid roadways with cold-mix surfaces
- c) Dust-suppressed gravel²
 - dust-suppressed gravel roadways, consisting of gravel roads with dust suppression, at intersections and driveway approaches, and gravel roads with intersection-to-intersection dust suppression
- d) Hamlet roadways²
 - roadways within Hamlets with cold-mix surfaces, asphalt surfaces and gravel surfaces
- e) Country Residential roadway²
 - asphalt roadways, cold-mix roadways and gravel roadways not included in the above.
- f) Municipal parking lots

² terms as defined by the Sustainable Rural Road Master Plan (SRRMP)

3.0 Service Levels (basic service levels are defined in Appendix A and/or described below)

Any hazard on any portion of the network is normally addressed by repair or marking within 24 hours of being observed or reported. The decision to repair or mark is based upon factors such as resource availability, hazard location and severity, shift cycles, weather conditions and third party responsibilities. If marking is chosen, the inspection process monitors that markings remain in place until the repairs are complete. An asset management system (IMS) is used to guide preventative maintenance practices.

3.1 Dust-suppressed Gravel Roadway Network**a) Grading**

Regular grading passes on graveled roads is necessary to keep the road in a safe condition for travel, with reasonable riding qualities for the posted speed limit. The frequency of surface maintenance depends on several factors such as traffic volumes, soil types, rainfall frequency, amount of gravel, etc.

The following may be used as a general guide for the frequency of grading:

1. 0-50 vehicles per day = once per month
2. 50-100 vehicles per day = twice per month
3. Service roads adjacent to a single resident = once per season

b) Dust Suppressing

Roads in this network receive either intersection-to-intersection ('I-to-I') or spot dust control. The criteria is:

i) I-to-I

- At least 100 vehicles per day, or
- between 65-100 vehicles per day with four or more occupied approaches per mile; or

ii) Spot Control – 153m in front of occupied residences

- less than 100 vehicles per day with less than four occupied approaches per mile.

The frequency of application varies from 0-3 times per year and is guided by the principle of keeping dust to a reasonable level as traffic and weather conditions compel.

c) Re-gravelling

All roads in the gravel network are re-gravelled on a 5-year cycle or as conditions change.

3.2 Sidewalks and Trails

A concrete sidewalk and asphalt trail deficiency rating system guides this maintenance area. Those deficiencies which have the most severe rating are repaired first.

3.3 Rural Drainage

This area includes culverts, ditches and easements. Beyond routine maintenance, problem areas are ranked and the most severe areas are addressed annually.

3.4 Railway Crossings

Where railways cross roadways, the maintenance responsibility is shared between Strathcona County and the railway companies. Conditions are monitored through inspections and problems are addressed as needed.

3.5 Parking Lots

Routine maintenance, and an inventory and deficiency rating system guides this work. Those deficiencies that have the most severe rating are repaired first.

SER-009-030 *Appendix A*
BASIC SERVICE ACTIVITY MATRIX

NETWORK CATEGORY		Hazard	Sweeping	Crackfilling	Sealing	Line painting	Patching	Grading	Dust Control	Overlay	Sidewalk Repair	Traffic Control Devices	Brushing	Drainage
Urban:	Major industrial roads	1	2	4	n/a	7	8	n/a	n/a	11	n/a	13	14	15
	Arterial roads	1	2	4	n/a	7	8	n/a	n/a	11	n/a	13	14	15
	Collector roads	1	2	4	n/a	7	8	n/a	n/a	11	n/a	13	14	15
	Residential roads	1	2	4	n/a	7	8	n/a	n/a	11	n/a	13	14	15
	Sidewalks and Trails	1	3	4	n/a	7	n/a	n/a	n/a	n/a	12	13	14	n/a
	Parking Lots	1	2	4	6	7	8	9	n/a	11	n/a	13	14	15
Rural:	Reconstruction	1	3	5	n/a	7	8	n/a	n/a	11	n/a	13	14	16
	Cold mix roads	1	3	4	6	n/a	8	n/a	n/a	11	n/a	13	14	16
	Dust-suppressed gravel	1	n/a	n/a	n/a	n/a	n/a	9	10	n/a	n/a	13	14	16
	Hamlet	1	3	4	6	n/a	8	n/a	n/a	11	n/a	13	14	16
	Country residential	1	3	4	6	n/a	8	n/a	n/a	11	n/a	13	14	16
	Parking Lots	1	2	4	6	7	8	9	n/a	11	n/a	13	14	15

1	See section 4.0
2	Swept in the spring and throughout the year, as needed
3	Swept on a 'spot' basis if safety issues arise
4	Cracks filled as needed
5	Cracks filled annually
6	Cold-mix surfaces sealed on a 3-4 year cycle or as needed
7	As visibility requires
8	As identified and programmed in annual maintenance cycle
9	See section 4.1(a)
10	See section 4.1(b)
11	As programmed by IMS or RRMP
12	See section 4.2
13	As per policy SER-009-017
14	As per policy SER-009-022 and SER-009-028
15	Curbs, gutters and catch basins are maintained as needed to maintain function
16	See section 4.3

