
Subject: Winter Maintenance Service Levels**Purpose and Background**

The Operations Department provides efficient, cost effective and consistent winter maintenance services for the safe passage of vehicular and pedestrian traffic on streets and sidewalks under the operational jurisdiction of the City of Markham. Council approved service levels for winter maintenance either meet or exceed provincially regulated Minimum Maintenance Standards (MMS) as required in *ON Reg. 239/02*.

Discussion

Markham utilizes a variety of equipment and the effective use of road salt to meet Council-approved levels of service for all City of Markham owned roads and sidewalks. Level of service is prioritized and dictated by road classification as identified in MMS *ON Reg. 239/02*.

Arterial Roads: are designed to carry large volumes of traffic to Regional arterial roads. They include transit and emergency routes for ambulance, fire, and police.

- Salted and/or plowed to achieve a 'bare surface' condition, 24 hours a day, 7 days a week throughout the winter season;

Primary Roads: are collector roads that distribute traffic to both City and Regional arterial roads. They provide access to schools, churches, community centers and industrial/commercial areas.

- Salted and/or plowed to achieve a 'bare surface' condition, 24 hours a day, 7 days a week throughout the winter season;

Secondary Roads: serve as local collector roads which distribute traffic onto primary roads. They include roads with extreme hills, curves and access points.

- Salted and/or plowed as required to achieve centre bare conditions between the hours of 7:00 a.m. and 6:00 p.m. 7 days a week throughout the winter season;
- Between the hours of 6:00 p.m. and 7:00 a.m. roads will be kept in a condition where traffic can move without undue difficulty.

Local Roads/Lanes: generally carries very low volumes of traffic and are not intended to carry through traffic. Lanes provide access to garages and parking spaces at the rear of homes and business.

- Acceptable in a snow packed condition;
- Plowing will be carried out only when snow accumulations reach or exceed 7.5 cm. If the snowfall is continuing, plowing will commence once snowfall ceases or accumulations exceed 12cm;
- Normal plowing operation will take approximately 16 hours;
- Snow plowing is ongoing until completed.

Cul-De-Sacs

- A follow up cleaning operation takes place using front end loaders or auxiliary equipment which clears the outside boundary of the cul-de-sac, piling the snow towards the centre of the cul-de-sac.
- This service is provided within 24 hours after plowing operations have been completed.
- This snow will remain in the centre of the court until it has exceeded the storage capacity

Sidewalks:

- Markham maintains all sidewalks within the City and Regional road allowances.
- Sidewalks are plowed and salted/sanded once accumulations reach 5cm or more.
- Priority service is given to locations near schools and bus stops. Primary sidewalks are completed within the first 12 hours after the storm.
- If accumulations are significant then secondary walks are completed the next day.

Bus Stops / Bus Shelters:

- York Region Transit is responsible for all snow removal at bus stops. For Customer Concerns/Inquiries regarding snow removal at bus stops, please call 905-762-2100.

On-street Parking:

- Parking Control By-law 2005-188 prohibits parking of vehicles on streets at any time if it interferes with snow removal operations and are subject to a \$150 fine and/or towing.
- In very limited areas where overnight on-street parking is permitted, snow will be cleared to the curb line of all roads, when possible.
- The snow will be plowed adjacent to parked vehicles and the owners or the parked vehicles will be personally responsible to clear the snow in order to proceed from their respective parking spaces.

Mail Boxes:

- Canada Post is responsible for maintaining all super mail boxes and removing the paper litter debris surrounding it. For Customer Concerns/Inquiries regarding snow removal and paper litter debris at super mail boxes, please call Canada Post at 1-866-607-6301.

Resident Information on Status of Plowing:

- Residents are able to view status of equipment during winter events through the City's web page. All in house and hired equipment have Automatic Vehicle Locators in them. Residents can observe road and sidewalk network completion as the mapping is refreshed every hour during all winter events.

Salt Management:

- The City has a Salt Management Plan in compliance with Federal legislation under Environment Canada (EC). The Plan sets out policy and procedural framework to ensure the City of Markham continuously improves the management of salt in winter operations. The Plan demonstrates the City's commitment to reduce the environmental effects of excessive salt use, consistent with the code of practices set out by EC.
- In addition, the Plan establishes standards and best practices for fleet GPS tracking, salt application, salt storage and snow disposal. The City has had the Plan since 2005 with annual updates submitted to EC per federal legislation. This will ensure effective winter maintenance for the safety of all roadway users while striving to minimize the amount of salt entering the environment.
- The City's in truck computer control device measures salt applications in every vehicle to ensure compliance with standards.

Challenges

- As a result of many years of growth, the need for a new public works facility continues to impact service delivery to the east and north end of the City. 555 Miller Avenue has exceeded its capacity and without a new facility this restricts the Operations Department ability to manage service levels or increase service levels should Council wish to improve them until a new facility is constructed.

- Resident expectations are increasing with intention to move unimpeded across the City regardless of the type and timing of winter events. Timing of mobilization of activities now require earlier dispatching of equipment to address resident concerns.
- Winter material storage requirements has far surpassed operational needs. As a result, salt is supplied on demand once activities begin. Current salt shortage has reduced service levels in certain areas and should the City's demand out weigh supply, service level non-compliance has exposed the City to risk related to claims.
- The City currently contracts out over 90% of its winter service delivery. Snow events in early November or late April are difficult to manage with limited resources as existing seasonal contract requirements dictate mid-November commencement and end of March termination. A typical weather event over 3 inches of measured depth is completed within 16 hours in alignment to Council approved service levels however shoulder events can be as long as 24-48 hours. The cost to extend stand by services to shoulder seasons can be costly, close to \$1.5 million per shoulder season. Staff will continue to monitor these shoulder seasons.

Budget

Markham's 2018 Winter Maintenance Budget based on current service levels (5 full network plows):

	Stand By	Operating	Total Budget
Equipment	\$ 2,165,388	\$ 3,334,111	\$ 5,499,499
Sidewalks	\$ 629,145	\$ 1,853,514	\$ 2,482,659
Salt & Other*	N/A	N/A	\$ 1,719,703
Total	\$ 2,794,533	\$ 5,187,625	\$ 9,701,861

* other includes sand, calcium, mobile radio air time, snow hauling Main Streets

Key Messages

- Winter maintenance service levels are Council approved and exceed the Minimum Maintenance Standards (MMS) legislated by the Province.
- Service levels are determined primarily by road classification, although other safety factors may be considered on a location-specific basis.
- Parking Control By-law 2005-188 prohibits the parking of vehicles on streets at any time if it interferes with snow removal operations. Parked vehicles which interfere with snow removal are subject to a \$150 fine and/or towing.

Attachments

- Winter Operations Frequently Asked Questions(FAQ)

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Date Finalized:	November 20, 2018		
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Distributed To:	Mayor & Council		



Briefing Note

Community & Fire Services Commission

Template last revised: 2018-Oct-10 (ST)