

## Winter Sidewalk Maintenance Service Standards 2022

Presented To:	Operations Committee
Meeting Date:	August 8, 2022
Type:	Correspondence for Information Only
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### Report Summary

This report provides an update on the review of possible changes in service levels for winter sidewalk maintenance.

### Relationship to the Strategic Plan, Health Impact Assessment and Community Energy & Emissions Plan (CEEP)

A pillar of the Strategic Plan 2019 – 2027 is the Asset Management and Service Excellence strategic initiative. One of the key principles of this initiative is to continually look for innovative and cost-effective approaches for the operational services staff deliver each day. Utilizing this continuous improvement approach ensures Linear Infrastructure Services provides efficient, high quality operational activities that meet the needs of residents and supports how they work, live and play in Greater Sudbury. As well, accessible winter sidewalks will encourage more residents to utilize active transportation rather than use motorized vehicles to get to their destination, which is consistent with the objectives of Greater Sudbury's Community Energy and Emissions Plan (CEEP).

### Financial Implications

There are no financial implications associated with this report at this time. Any future recommendations for service level changes would be incorporated in a business case as part of a future budget deliberation.

### Background

On February 16, 2021, the Finance and Administration Committee passed resolution FA2021-06 requesting that staff prepare a study of service standards and service delivery models for winter sidewalk maintenance with recommended service level options including but not limited to reviewing: snow accumulation to initiate operations; continuous plowing practices; priorities for the sidewalk network; service models and best practices in other cities; and alignment with the active transportation policies and goals of the Community Energy and Emissions Plan (CEEP).

In September 2021, staff presented a report to Operations Committee titled "Winter Sidewalk Maintenance Service Standards" that outlined existing service levels for sidewalk winter maintenance and analyzed resident feedback obtained through 311 Customer Service Requests data, a citizen survey, a survey

submitted by the Greater Sudbury Safer Sidewalks (GSSS) Community Group as well as several virtual meetings with this group. Based on feedback received, staff outlined several 'next steps' that included investigating the sidewalk winter maintenance standards of other municipalities, reviewing current plowing practices for efficiencies that can be found within existing service levels and to develop alternate sidewalk winter maintenance options to be presented for further community engagement. This report provides an update on the status of this initiative.

## Sidewalk Winter Maintenance in Other Municipalities

Staff researched sidewalk winter maintenance standards across twenty (20) municipalities in Canada. Table 3 provides a summary of those findings.

**Table 3 – Municipal Sidewalk Winter Maintenance Standards Compared – Snow Plowing**

Municipality	Approx. Populations	Sidewalks Maintained in Winter (km's)	State of Sidewalks in Winter	Accumulation to Begin Plowing	Time to Clear after Snow Event	Private Property Maintenance
Greater Sudbury	166,000	370	Snow Pack	8 cm	Up to 24hrs	No
Sherbrooke, QC	173,000	344	Snow Pack	P1 by 7:30 am	3 to 10 hrs.	No
				P2 up to 15 cm	5 to 10 hrs.	
Barrie	147,000	619	Snow Pack	5/8 cm	Up to 48 hrs.	Yes
Saquenay QC	145,000	290	Bare/Snow Pack	P1 by 7:30 am	8 to 16 hrs.	No
				P2 up to 15 cm	Up to 48 hrs.	
Trois-Rivieres, QC	140,000	277	Bare/Snow Pack	4/5 cm's	P1 by 7:30 am	No
				3 cm	6 to 8 hrs.	
St. John's NFL	111,000	161	Bare/Snow Pack	3/5 cm	4 to 7 days	Yes
North Bay	53,000	150	Snow Pack	8 cm	Up to 48 hrs.	No
Timmins	41,000	118	Snow Pack	8 cm	Up to 48 hrs.	No
Sault Ste. Marie	72,000	212	Snow Pack	5 cm	Up to 24 hrs.	No
Thunder Bay	108,000	449	Snow Pack	5 cm	14/72 hrs.	No
Windsor	229,000	< 7% of all sidewalks	Snow Pack	After the end of the storm	2hrs Residential/ hrs. Commercial	Yes
Regina	226,000	300	Bare/Snow Pack	5 cm	24 to 48 hrs.	Yes
Burlington	187,000	850	Snow Pack	5 cm	Up to 48 hrs.	No
Oshawa	175,000	150	Bare/Snow Pack	2 cm	Up to 24 hrs.	Yes
Guelph	143,000	701	Snow Pack	4/8 cm	Up to 20 hrs.	No
St-Catherines	137,000	120	Bare/Snow Pack	8 cm	Up to 24 hrs.	Yes
Red Deer AB	101,000	129	Snow Pack	N/A	Up to 72 hrs	Yes
Ottawa	1,012,000	2300	Snow Pack	5 cm	Up to 16 hrs.	No
Halifax	440,000	968	Bare	5/15 cm	12 to 36 hrs.	No
London	422,000	1500	Snow Pack	5/8 cm	48 hrs.	Yes

# Summary of Other Municipalities Service Levels

## Priorities for Sidewalk Network

Nearly all municipalities researched specified some type of priority levels for of sidewalk winter maintenance. The various municipal downtowns, school zones and hospital areas commonly received the highest priority for sidewalk winter maintenance. Sidewalks adjacent to local and residential streets were often found to have significantly lower winter maintenance standards as compared to the high priority sidewalks in each of the municipalities researched.

Forty percent of municipalities (8 of 20) have priority routes that have a different level of snow accumulation to trigger the commencement of snow plowing operations depending on the priority assigned. Eighty-five percent of municipalities (17 of 20), regardless of trigger levels, have the same timeline to clear the sidewalks after the end of a storm, and twenty percent of municipalities (4 of 20) have different timelines to clear the sidewalks after the end of a storm, depending on the trigger level.

## Level of Snow Accumulation Which Triggers Commencement of Plowing Operations

For municipalities that had priority sidewalks, the level of snow accumulation that triggered the commencement of plowing operations for high priority sidewalks in other municipalities ranged from 2 to 8 cm's with timelines to clear the snow that ranged from 3 hours to 24 hours after the end of a snowstorm. The level of snow accumulation that triggered the commencement of plowing operations for low priority sidewalks ranged from 8 to 15 cm's with timelines that ranged from 24 hours to several days after the end of a snowstorm.

Forty-five percent of municipalities (9 of 20) have one level of snow accumulation that triggers the commencement of snow plowing operations for all sidewalks, Thirty-five percent of municipalities (7 of 20) have 2 levels of snow accumulation that triggers snow accumulation, and fifteen percent of municipalities (3 of 20), specifically Quebec, have a specified time to complete plowing operations for priority routes and an accumulation that triggers snow plowing operations. It is assumed that this time limit represents the first pass of a snowplow by 7:30am. Note that Ontario Minimum Maintenance Standards for Municipal Highways do not apply in Quebec.

## Public / Private Partnerships

Forty percent of the municipalities (8 of 20) researched have by-laws in place that require private property owners to maintain sidewalks adjacent to their properties to the various service standards described in Table 3. These municipalities commence plowing of priority sidewalks once a snow accumulation of 5 cm's has been detected, except for St Catherine where snow plowing operations commence once 8 cm's of accumulation on the sidewalks has been detected.

## Efficiencies Within Existing Service Levels and Practices

When staff reviewed the results of the citizen survey, the three main recommendations were to: address slippery and bumpy conditions, address snow blocking sidewalks and to ensure accessibility with plowing commencing sooner and continuing more frequently.

Upon review of existing practices, it was determined the following five (5) steps can be implemented within current service levels for the 2022/2023 winter season.

1. Continue using the new plow blades for the sidewalk plows as described in the report presented to Operations Committee July 11, 2022, titled "Mechanical Ice Breaker for Sidewalk Winter Maintenance 2021-2022 Pilot Project Update". This new blade can remove more irregularities in the snow packed surface of the sidewalk.

2. Continue the use of the mechanical ice breaker attachment as required as an additional tool to remove surface irregularities on sidewalks,
3. Identify intersections with high pedestrian traffic throughout the City and ensure priority for these locations for clean-up of the pedestrian area by removing any “windrows” (small piles of snow left behind by roadway plowing) and ensuring the pedestrian push-button access is cleared.
4. Provide accessibility training to all snowplow operators to ensure that drivers understand the needs of pedestrians with mobility issues
5. Respond more proactively to smaller winter events, particularly earlier in the season, to prevent ice and snow from building up on the sidewalks.

## **Next Steps - Analysis of Potential Options**

### **1. Priorities for Sidewalk Network**

To analyze priority routes for winter maintenance on sidewalks, existing policies and tools will be utilized and are as follows:

#### a) Sidewalk Priority Index

The City’s Sidewalk Priority Index analyzes roadway characteristics such as traffic volumes and planning classification, the road user such as pedestrians that may be utilizing the sidewalk including their vulnerability level, and pedestrian generators such as schools, public parks or transit stops.

#### b) Active Transportation Winter Maintenance Policy

The City’s Active Transportation Winter Maintenance Policy outlines criteria that determine how new sidewalks or sidewalk winter maintenance requests are analyzed for winter maintenance. This criterion matches the criteria used in the City’s Sidewalk Priority Index and takes into consideration the O.Reg 239/02 Minimum Maintenance Standards for Municipal Highways.

#### c) Complete Streets Policy

The City’s Complete Streets Policy states that a complete street is one that is designed to consider the needs of all users, such as people who walk, bike, take transit or drive, and people of varying ages and abilities. While not every type of use or user may be accommodated on every street, the goal is to build a city with a well-functioning street network that supports and sustains our quality of life. Reviewing sidewalk winter maintenance within the goals the complete streets policy will help support a wider use of the sidewalk network in the winter.

### **2. Level of Snow Accumulation Which Triggers Commencement of Plowing Operations**

Once potential priority routes have been identified, staff will evaluate different levels of snow accumulation to trigger the commencement of plowing operations depending on the level of priority of the route. As part of this review, staffing and equipment levels will be evaluated, and costing options will be defined.

### **3. Continuous Plowing Practices**

Staff will also evaluate continuous plowing practices on identified priority routes. As part of this review, staffing and equipment requirements will be evaluated, and costing options will be defined.

## Next Steps – Community Engagement

Once the analysis as described above has been completed, additional community feedback will be required to determine preferred options. Staff will provide several public input opportunities to discuss these options including virtual public meetings as well as the City's public input site, 'Over to You'.

Once the community engagement phase is complete, a summary of the feedback along with the preferred options and their associated financial models will be presented to Operations Committee for deliberation before the end of Q2 of 2023. Staff will take direction from Committee to prepare a business case of any preferred options for consideration as part of the 2024 budget deliberations.

## Resources Cited

Operations Committee Report dated July 11, 2022, titled "Mechanical Ice Breaker for Sidewalk Winter Maintenance 2021-2022 Pilot Project Update"

<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?DocumentId=47022>

Operations Committee Report dated September 20, 2021, titled "Winter Sidewalk Maintenance Service Standards" <https://pub-greatersudbury.escribemeetings.com/FileStream.ashx?DocumentId=41801>

Operations Committee Report dated August 12, 2019 titled "Active Transportation Winter Maintenance Policy" <https://pub-greatersudbury.escribemeetings.com/FileStream.ashx?DocumentId=30113>

Operations Committee Report dated June 18, 2018, titled "Complete Streets Policy"

<https://pub-greatersudbury.escribemeetings.com/Meeting.aspx?Id=a666369b-b614-42e8-9fc8-ac173d5d2ceb&Agenda=Agenda&lang=English>

Operations Committee Report dated April 20, 2022, titled "Sidewalk Priority Index Update"

<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?DocumentId=43985>