

REPORT TO: Mayor James M. Diodati
and Members of Municipal Council

SUBMITTED BY: Municipal Works

SUBJECT: **Report MW-2021-72**
Winter Sidewalk Maintenance Considerations

RECOMMENDATIONS

1. That Council receive Report MW-2021-72 and the corresponding presentation pertaining to Winter Sidewalk Maintenance Considerations; and further,
2. That Council direct staff to proceed with Option 4 outlined in Report MW-2021-72 being the preparation and implementation of a Sidewalk Snow Clearing Bylaw, and related education, communication, and assistance programs for enforcement commencing at the start of the 2022/2023 winter season.

EXECUTIVE SUMMARY

The City of Niagara Falls has an asset inventory of municipal sidewalks presently totalling over six hundred kilometres (600 km) in length that is ever increasing with the assumption of new subdivisions. Maintenance of these sidewalks, including measures to address snow and ice accumulation is prescribed by provincial regulation (O. Reg. 239/02).

Current service level standards presently include the mechanical clearing / snowplowing of approximately one-third, or two hundred kilometres (200 km), of sidewalks. Locations and routes where City forces clear sidewalks in winter is dictated by risk-based factors including the pedestrian volume, proximity to health-care, proximity to schools, and proximity to high-volume roadways, amongst other things.

Several options to improve accessibility and reduce the City's overall risk of liability at unmaintained sidewalks are outlined in this report for Council's consideration. It is Staff's recommend to proceed with Option 4, being the preparation and implementation of a Sidewalk Snow Clearing Bylaw, and related education, communication, and assistance programs for implementation and enforcement commencing at the start of the 2022/2023 winter season.

BACKGROUND

This report is being provided to Council in response to the following motion passed by Council on April 8, 2021:

That Staff come back with a report on sidewalk plowing for the City of Niagara Falls and how this may be expanded and the possible implementation of a bylaw to be put in place and any other options for snow removal (i.e. Snow buddy Program).

The City owns and maintains approximately six hundred kilometres (600km) of sidewalks of various widths, locations and conditions. This network length continues to increase as a result of new subdivision assumptions and periodic requests for new sidewalk installations or infill of missing links. Of this total, approximately one-third, or two hundred kilometres (200km) of sidewalk, is maintained in the winter through the mechanical clearing and placement of salt. Also included in this total is the “mist zone” which receives specialized treatment due to ongoing icing concern throughout the duration of the winter. Included as Attachment 1 to this report is a map illustrating the current locations where municipal snow clearing is presently performed.

The current service levels for winter sidewalk maintenance are dictated solely by the budgetary allocation and corresponding resources dedicated towards this service. Accordingly, our current fleet inventory includes seven (7) dedicated rubber-tire sidewalk plows, one (1) track sidewalk plow, and one (1) spare/backup unit. Labour necessary to operate these pieces of equipment is made up of eight (8) dedicated equipment operators and one (1) supervisor whom all transition between seasonal maintenance/construction to manage the sidewalk inventory in winter.

Given that the current resource allocation dedicated to winter sidewalk maintenance is limited, routes for sidewalk plowing are reviewed on a continual, ongoing basis in accordance with needs, as we follow a risk-based approach to prioritization. Locations therefore include sidewalks affected by health-care facilities, schools, and business districts as well as locations adjacent to high-volume arterial and collector roadways and linkages to parks and trails that are also maintained for winter recreation. Routing information is available on the City’s interactive mapping application on our website.

ANALYSIS/RATIONALE

The obligation of the City to keep sidewalks maintained in the winter is found in the Provincial Minimum Maintenance Standard Regulation O.Reg. 239/02. In general, and except in the case where a significant weather event has been declared, the regulations require:

1. Clearance of a 1.0m wide path, reduced to a depth of 8 centimetres or less, within 48 hours of a snow accumulation (or until 48 hours after the snow accumulation ends); and
2. Treatment of the sidewalk to prevent ice formation or to improve traction by placement of salt, sand or combination thereof within 48 hours of a substantial probability of ice formation (or 48 hours after ice formation occurs, or the City is made aware that it has occurred).

The approach to meeting the requirements of this obligation varies widely across the Province, and depends greatly on the levels of service adopted by individual municipalities – mostly influenced by the urban/rural structure and the quantity/length of sidewalks located within the municipality.

The highest level of service for winter sidewalk maintenance under this Regulation is for a municipality to undertake the service in a manner with its own equipment and labour that exceed the provincial minimums; whereas the lowest level of service is to effectively “do nothing” and not abide by the regulatory requirements.

As a balance to the extensive fiscal responsibilities necessary to meet the highest level of service versus the risk of liability to adopt the lowest level of service, many municipalities have taken an alternative approach by enacting a sidewalk snow clearing bylaw. This approach appeals to individual property owner to take civic responsibility for the sidewalk fronting their property, often with supplemental maintenance by municipal forces for prominent business districts, arterial roads, and vulnerable population areas where individual snow clearing obligations are unavailable or inappropriate.

Thus, in light of the Council motion and in keeping with the O.Reg. 239/02 regulations, Staff have explored the following options to increase service levels:

Current State (Status Quo) Service Levels

- Continue to maintain one-third of the sidewalk inventory.
- New sidewalks to continually be evaluated, and new maintenance efforts to continue to be included for maintenance and budgeted for increase in accordance with the prescribed sidewalk risk-factor criteria.
- High liability risk associated with two-thirds unmaintained inventory.

Option 1 – Expand Scope of City Maintained Sidewalk

- An additional 400+ km of sidewalk is added to the City’s existing maintenance program.
- Priority I & II sidewalks maintained to bare walk through plowing and salt application.
- Priority III sidewalks maintained to compacted surface through plowing.
- One-Time Capital Expenditures:

Item	Costs
Purchase 9 New Sidewalk Plows *	\$ 1,800,000
Encroachment Removals and/or Relocations**	\$ 250,000
Total	\$ 2,050,000

*assume 10-year lifespan for sidewalk plows.

** assumed at \$250,000. Actual costs unknown.

- Annual increase to sidewalk winter maintenance operating budget:

Item	Costs
Labour (Seasonal staff + NU Supervisor)	\$ 410,000
Material (Fuel and Salt)	\$ 70,000
Equipment Repairs and Maintenance	\$ 80,000
Sod Restoration (Contract Costs)	\$ 100,000
Total	\$ 660,000

Combined, the capital expenditures and annual operating costs will result in an ongoing annual net-present-value (10yr lifecycle) increase exceeding \$1,000,000 per year.

- Sidewalks less than 1.0m in width will not be maintained.
- Sidewalks with encroachments (poles, landscaping, utilities, etc) within 450mm (18 inches) will be required to be removed or relocated. May result in impacts to properties and businesses. Costs are unknown, but estimated at \$250,000 for the purpose of this analysis.
- Will drastically increase the number of complaints for winter-related sod damages.
- Reduces the liability risk for trip and fall claims related to minimum maintenance standards.

Option 2 – Contract Out Winter Snow Clearing

- Mix of existing city-cleared locations and contract locations. Over time, the extent of City-cleared locations can be reduced if it is deemed advantageous.
- Level of service target is 24 hours from the end of a storm event, or sooner.
- Enforcement and penalty clauses to ensure compliance with the level of service requirements can be challenging for Staff to manage.
- Contractor will be required to abide by and track the MTO operating hours rules – max 13hrs per day.
- There are no additional staffing or equipment requirements related to this option.
- This option would require a competitive bidding process. The ability and timing required to implement this option would depend on the availability of interested bidders

and their ability to secure equipment. However, it is assumed that this option could likely be implemented no sooner than the fall/winter season starting November 2024.

- Sidewalks less than 1.0m in width will not be maintained.
- Sidewalks with encroachments (poles, landscaping, utilities, etc) within 450mm (18 inches) will be required to be removed or relocated. City to bear this cost as noted in Option 2.
- Will drastically increase the number of complaints for winter-related sod damages.
- Reduces the liability risk for trip and fall claims related to minimum maintenance standards.

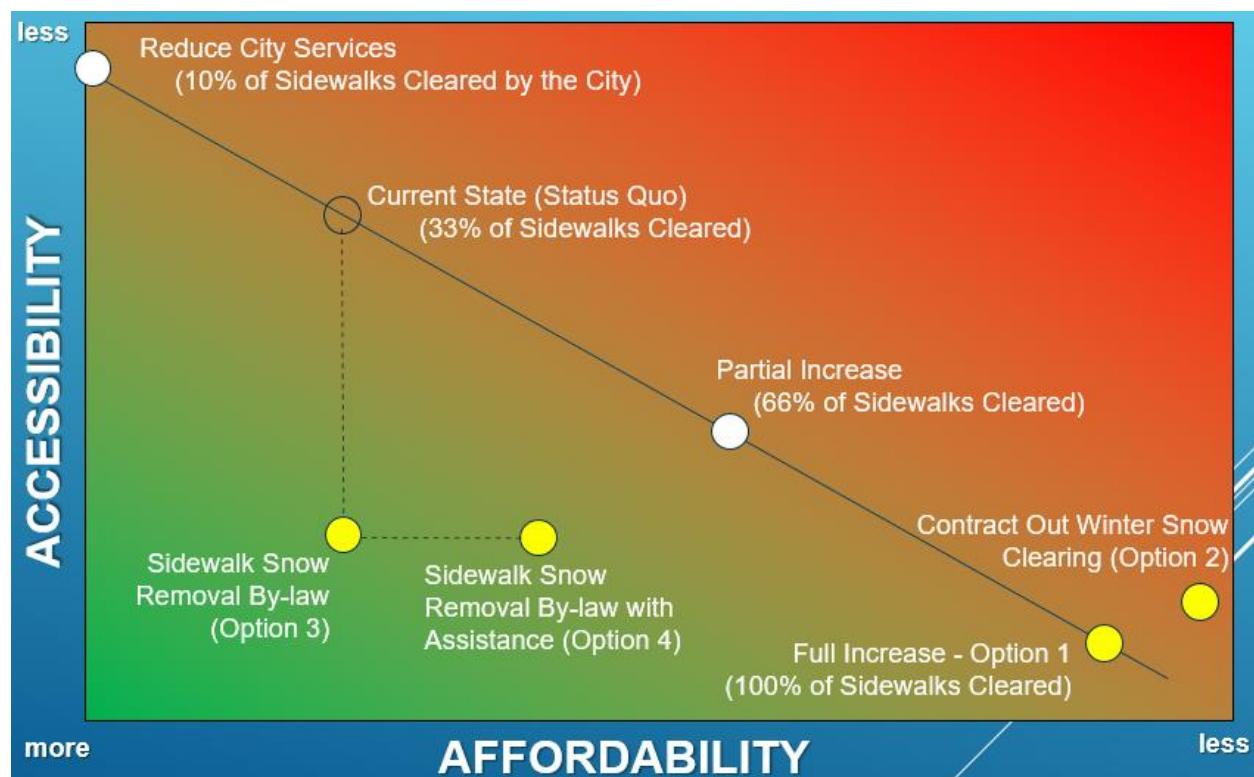
Option 3 – Sidewalk Snow Removal “Good Neighbour” Bylaw

- Requires private property owners with sidewalks fronting or abutting their property to clear snow and ice from these sidewalks within 24 hours of a snow event.
- City-Maintained sidewalks (1/3 of City) will need to be revisited based on a set of criteria for this level of service (arterial, commercial frontage, park frontage, flankages, etc.). It is likely that only a small number of locations can be eliminated.
- Ongoing growth of the City will contribute to minor expansion of City-cleared locations; following the established criteria for this service listed above.
- Cost-recovery for contracted snow-clearing where property owners are non-compliant.
 - Estimated \$250 admin fee per infraction; and,
 - Estimated \$15 per metre frontage fee per infraction, subject to actual contract prices
- Implementation in phases.
 - Year 1 = No Enforcement. Focus on education through communication, social media, by-law handouts, water-bill inserts, etc.
 - Year 2 = Complaint Based Enforcement incl. fines
- Staffing considerations may be required for Bylaw Enforcement manpower. Can likely be accomplished with the existing resources, and will be revenue neutral with compensation from admin fees.
- With compliance, this option greatly reduces the liability risk for trip and fall claims related to minimum maintenance standards.

Option 4 – Sidewalk Snow Removal Bylaw with Supportive Assistance

- Same as Option 3 but with the addition of a Supportive Financial Assistance program for seniors and disabled persons meeting an income threshold.
- Currently there are 300 residents registered with the Snow Buddies program of which 56 receive assistance from volunteers.
- Annual application process could be implemented for sidewalk snow-clearing to be completed through the City's bylaw enforcement contract. Suggest starting with a budget cap of \$50,000 estimated at \$1000 x 50 approved applicants per year.
- Pre-Requisite (typical) for the assistance program would require:
 - Statement from physician
 - Proof of property ownership
 - Attestation of no other able person residing in the dwelling
 - Reside in a single, semi-detached, or duplex in the Urban Area
 - Income threshold must be met

The options presented above all offer a balance between level of service, affordability and accessibility, and risk of liability. To illustrate a comparison of levels of service, the following graphic has been presented to plot relative affordability versus accessibility (accessibility meaning that more sidewalks are cleared, as early and as often as possible). Alternatives that achieve more accessibility, while still maintaining affordability, are considered to be preferable.



For additional comparison, the following chart compares the approach to sidewalk clearing elsewhere in Niagara and throughout Ontario

Municipality and 2016 Population	Approach	Length Cleared by Municipal Forces
St. Catharines (133,113)	Bylaw	117km of 592km (20%)
Welland (52,293)	Bylaw	51km of 335km (15%)
Fort Erie (30,710)	Cleared by Town/Contract	160km of 160km (100%)
Grimsby (27,314)	Cleared by Town	95km of 95km (100%)
Thorold (18,801)	Bylaw	25km of 110km (23%)
Hamilton (536,917)	Bylaw	397km of 2,445km (16%)
Kingston (123,798)	Cleared by City	600km of 600km (100%)
Milton (110,128)	Bylaw	241km of 408km (59%)
Waterloo (104,986)	Bylaw	unknown of 547km
Pickering (91,771)	Bylaw	unknown of 331km
Brantford (97,496)	Bylaw	79km of 555km (14%)
Newmarket (84,224)	Recently Phased in to fully cleared by Town	340km of 340km (100%)
Sarnia (71,594)	Partial clearing, no bylaw	168km of 328km (51%)
Niagara Falls (88,071)	Partial clearing, no bylaw	200km of 600km (33%)

FINANCIAL/STAFFING/LEGAL IMPLICATIONS

The overall risk exposure to maintain the status quo approach has fortunately been very low in the recent past, with actual claims data received over the past ten (10) years totalling to \$316,000. To be clear, moving forward with any of the alternatives noted in this report will not eliminate this risk exposure entirely, but is expected to reduce exposure greatly and will lead to cost-avoidance of future claims – especially the immediately concerning potential for major claims resulting from serious personal injury or fatality due to the inherent negligence associated with the City's current policy.

Should council provide direction to proceed with the implementation of a sidewalk snow clearing bylaw, Staff will proceed with drafting of this document and careful consideration of the fines and fees recoverable through the Administrative Monetary Penalties (AMPs) methodology. This bylaw will return to Council at a later date for its first, second and third reading and although the bylaw could come into force earlier, it is expected that hard enforcement would not be any earlier than the 2022/2023 winter season thus allowing for approximately twelve (12) months of education over the upcoming winter 2021/2022 season and the months to follow.

The implementation of a financial support program will also require funding in a future operating budget, with the amount of financial support at Council's discretion. If approved, budgetary allocation for this program will be required in the 2023 Operating Budget.

Staffing implications, with respect to bylaw enforcement will be required to be incorporated into future operating budgets if necessary.

The cost of bylaw enforcement is expected to be revenue neutral. This means that fines and fees payable for bylaw offences, will offset the costs of contract clearing and administrative costs.

CITY'S STRATEGIC COMMITMENT

The recommendations of this report achieves the goals set out in Council's Strategic Priorities with respect to sidewalk safety and accessibility as part of fostering a Healthy, Safe and Liveable Community, while also respecting the affordability of delivering services in accordance with Responsible and Transparent Financial Management.

ATTACHMENTS

Attachment 1 – Current Sidewalk Snow Clearing Route Map

Recommended by:

Erik Nickel, Director of Municipal Works

Respectfully submitted:

Jason Burgess, Chief Administrative Officer

E. Nickel