



POLICY

POLICY NAME: Snow and Ice Control

CATEGORY: City Government – Effective Governance
APPROVED BY COUNCIL: 2019/09/09
DEPARTMENT RESPONSIBLE: Engineering and Public Works

PURPOSE:

This policy supports the City Government Strategy - Sustainable Infrastructure Policy and provides direction regarding snow and ice control management.

The Snow and Ice Control Policy is necessary to make a clear statement of the intent of the City of Prince George winter maintenance operations and establish the priorities and service levels of the snow and ice control. An effective and efficient snow and ice is necessary to allow the municipality to function under normal winter weather conditions to reduce snow and ice hazards and to provide reasonable winter mobility on City infrastructure including municipal roads, laneways, sidewalks, trails, and Civic and Park facilities.

The Guiding Principles of Snow and Ice Control in the City of Prince George are:

- Four Season City - Prince George is a city with four distinct seasons and the winter season and its conditions are an important part of life in our community;
- In Partnership with our Residents - Council recognizes that snow and ice control operations call for a collaborative approach with residents, commercial, industrial, and institutional sectors and the City of Prince George Staff;
- Public Safety a Priority– Municipal roads will be cleared on a priority basis to enable effective movement of emergency vehicles, vehicular traffic, and facilitate movement for active transportation within the city; and,
- Financial Sustainability - Council and the taxpayers of Prince George support the Snow Levy and decisions made on how this money is spent needs to be done in a measured manner with the priorities set out by Council.

POLICY OBJECTIVES:

The objective of the City of Prince George's snow and ice control program is to maintain municipal roads, laneways, sidewalks, trails, and Civic and Park facilities (parking lots, pedestrian surfaces, and entrances) during the winter season in a reasonable, functional and financially sustainable manner; to reduce the negative impacts that snow and ice may have on City infrastructure in the community; and to facilitate the movement of emergency vehicles, vehicular traffic, and active transportation networks throughout the winter months. The program is intended to assist vehicles that are properly equipped for

winter driving conditions and being operated in a manner consistent with effective winter driving habits, and to assist those using active transportation networks with care and attention to conditions.

The policy and the administration of the policy also aims at providing an equitable level of service to all the residents of the City of Prince George.

The following actions will help guide the City of Prince George in the development, implementation, maintenance, review and reporting of its snow and ice control program:

- Define the levels of snow and ice control services to be delivered using best management practices in support of Council's Strategic Priorities;
- Identify the optimum mix of internal/external resources to deliver the desired services;
- Plan financially for the defined levels of service and the risk of costs exceeding the annual budget due to the variable nature of winter;
- Identify and address the effects of climate change;
- Implement equipment training and succession planning to ensure that City operations are optimized and that support staff are trained and available when required; and,
- Communicate information to the public about snow and ice control operations, both in advance of and during the winter season.

This policy will be administered through the Snow and Ice Control Administrative Procedure.

This policy will be reviewed periodically to ensure that the priorities, service levels and support systems continue to meet the purpose of this policy and ensure adequate resources and reserves are both in place and available for winter maintenance operations.

POLICY:

This policy applies to winter maintenance carried out on City infrastructure by the City of Prince George's employees and the external equipment contractors engaged by the City of Prince George. This policy operates in addition to, and may supplement, other policies and bylaws of the City of Prince George.

Prince George City Council recognizes that Prince George is a winter city, and that winter conditions are part of who we are. How, when and where the City administers its snow and ice control program on municipal roads, lanes, sidewalks, trails, and Civic and Park facilities (parking lots, pedestrian surfaces, and entrances) depends on the City Council-approved priority system, as well as other factors, which may include the:

- Temperatures before, during and after a snow event;
- Duration of the snow event or back-to-back events;
- Amount of accumulated snow;
- Weather forecast; and
- Equipment utilization and downtime.

For the purpose of snow and ice control operations, the municipal road network, sidewalks (as part of a pedestrian network), laneways, trails, and Civic and Park facilities are categorized into one of three priority classifications. When necessary the order of priority for the provision of the required services may be altered. The City will monitor winter weather conditions twenty-four (24) hours a day. Should snowfall accumulations reach defined thresholds (minimum metrics) for categorized routes within a 24-hour period, a snow event may be declared.

The snow clearing levels, implemented through the Snow and Ice Control Administrative Procedure, describe the varying levels of response to different snow accumulation events. These priorities are - Priority One (1), Priority Two (2), and Priority Three (3). The sequence and the methodology of services provided at each level, including monitoring the efficiency of clearing roadways, parking lots and active transportation network will be based on operational efficiency, including route optimization and other relevant applicable factors and administered through the Snow and Ice Control Administrative Procedure.

Snow clearing may occur in all areas of the City of Prince George twenty-four (24) hours a day in the event of a snow event.

Snow Clearing Service Levels

Priority	Description	Minimum Metrics	Timelines
One (1)	<ul style="list-style-type: none"> Arterial Roads and Curb Adjacent Sidewalks Downtown Central Business District Roads, Laneways and Sidewalks Hospital District Major Facility Entrances, Pedestrian Surfaces and Daily Parking Areas City Off-Street Parking 	<ul style="list-style-type: none"> When accumulated snowfall reaches 7.5cm in a 24 hour period Max 2.5cm compact snow 	<ul style="list-style-type: none"> Accomplish within 48 hours after the end of a snow event
Two (2)	<ul style="list-style-type: none"> Collector Roads and Curb Adjacent Sidewalks Priority Hills Commercial and Industrial Zoning Roads, Laneways, and Curb Adjacent Sidewalks Transit Bus Routes that are not in Priority Ones (1) Transit Bus Stops along Priority Ones (1) and Twos (2) 		

Snow Clearing Service Levels Continued

Priority	Description	Minimum Metrics	Timelines
Three (3)	<ul style="list-style-type: none"> Residential Roads, Laneways and Designated Sidewalks <ul style="list-style-type: none"> Lanes may be closed if impractical to plow Minor Facility Entrances, Pedestrian Surfaces and Parking Areas Major Park Pathways, Trails and Parking Lots Event Parking Areas (unless a major event is imminent, then raise priority to clear before the event) 	<ul style="list-style-type: none"> When accumulated snowfall reaches 12.0cm in a 24 hour period Max 2.5cm compact snow 	<ul style="list-style-type: none"> Accomplished within 72 hours after the completion of Priority 2 areas
Notes			
	Heavy Snowfall Declaration <ul style="list-style-type: none"> Advance start time in the Downtown Central Business District for nighttime snow clearing/removal in Priority One (1) and Two (2) areas from 12:00 am to 11:00 pm 	<ul style="list-style-type: none"> Issued when accumulation reaches 20.0cm in a 24 hour period 	<ul style="list-style-type: none"> Extend completion times by 24 hours for each 8.0cm of snow over the specified metrics

Ice Control Service Levels

Description	Minimum Metrics	Timelines
Anti-Icing (Liquid Salt) may be applied to Priority 1 and 2 road and parking lot surfaces	<ul style="list-style-type: none"> Up to 24 hours in advance of a forecast snow event with a 60% or greater probability of occurring and when surface temperatures are warmer than minus 20 Celsius 	Selectively used up to 24 hours in advance of a Priority 1 snowfall event
Pre-Wetting (Liquid Salt)	<ul style="list-style-type: none"> Applied to 100% of abrasives and road salt prior to application to road and pedestrian surfaces 	In use any time abrasives or road salts are applied
Road Salt (Rock Salt)	<ul style="list-style-type: none"> Immediately following snow removal from Priority Ones (1) and Twos (2) when surface temperatures are warmer than minus 7 Celsius. 	Selectively used to melt snow and ice

Ice Control Service Levels Continued

Description	Minimum Metrics	Timelines
Abrasives <ul style="list-style-type: none">• Winter Crush• Winter Sand	<ul style="list-style-type: none">• Normally applied to road intersections, stops, hills and bends and pedestrian surfaces in Priority Ones (1) and Twos (2), when ice forms• May be applied to Priority 3 areas when conditions merit	Selectively used to improve traction on roads and pedestrian surfaces

Snow Removal (Loading Out)

Snow removal operations will be considered only in situations where the lack of adequate storage prohibits the normal winter movement of vehicular and/or pedestrian traffic and sight restrictions at intersections and around fire hydrants.

Windrows of snow shall normally be removed on Priority One (1) and Two (2) streets where the following criteria are met:

- Where lack of adequate storage results in a reduction in the number of available traffic lanes, thereby prohibiting the reasonable movement of vehicular traffic under normal winter driving conditions;
- Where lack of adequate storage prohibits the reasonable movement of those using the active transportation network;
- Where there is a need to expose catchbasins to facilitate spring melt, winter freeze and thaw cycles, precipitation as rain, and to prevent flooding;
- Where it is necessary to remove snow and ice in curb and gutter areas to enable winter traction material removal by sweeping; and,
- Notwithstanding any of the above, the City shall take advantage of mechanically blowing snow to adjacent properties to accommodate snow storage wherever possible, rather than resorting to hauling.

Driveways

To accommodate snow storage in residential neighbourhoods, driveways will be opened to a maximum of 8.0 meters.

Communications

The public will be kept informed of snow and ice control operations through a variety of methods which will be reviewed annually.

Statutory Holidays- Option 1

Snow event operations, as outlined in this policy, will not occur on statutory holidays and will be paused. Snow clearing on Priority 1, 2 and 3 routes, including sidewalks and City off-street parking will not commence until the next non-statutory day.

Statutory Holidays- Option 2

Snow event operations, as outlined in this policy, will have service levels reduced on statutory holidays as follows:

Priority	Description	Minimum Metrics	Timelines
One (1)	<ul style="list-style-type: none"> As defined in “Snow Clearing Service Levels” 	<ul style="list-style-type: none"> When accumulated snowfall reaches 12.0cm in a 24 hour period 	<ul style="list-style-type: none"> Accomplish within 48 hours after the statutory holiday
Two (2)	<ul style="list-style-type: none"> As defined in “Snow Clearing Service Levels” 	<ul style="list-style-type: none"> Max 5.0cm compact snow 	
Three (3)	<ul style="list-style-type: none"> As defined in “Snow Clearing Service Levels” 	<ul style="list-style-type: none"> When accumulated snowfall reaches 20.0cm In a 24 hour period Max 7.5cm compact snow 	<ul style="list-style-type: none"> Accomplish within 72 hours after the completion of Priority 2 areas

Statutory Holidays- Option 3

Snow event operations, as outlined in this policy on a statutory holiday, would not change for Priority 1 and 2 routes, including sidewalks and City off-street parking. Priority 3 snow event operations would have service levels reduced on statutory holidays as follows:

Priority	Description	Minimum Metrics	Timelines
Three (3)	<ul style="list-style-type: none"> As defined in “Snow Clearing Service Levels” 	<ul style="list-style-type: none"> When accumulated snowfall reaches 20.0cm In a 24 hour period Max 7.5cm compact snow 	<ul style="list-style-type: none"> Accomplish within 72 hours after the completion of Priority 2 areas Snow and Ice Control only when a snow event threshold of 20.0cm is met while encompassing a Statutory holiday.