



TOWN OF HIGH RIVER POLICY

Policy Number:	POL-28-106-00
Policy Name:	Snow and Ice Control Policy
Related Procedure Number:	N/A
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Approval Date	December 8, 2014
Last Review Date:	August 21, 2017
Revision Date:	August 21, 2017
Policy Category:	Operational Services
Responsible Department:	Operational Services

1. BACKGROUND

The Operational Services Division is responsible for the Town's snow and ice control program and is committed to maintaining a high level of safety for pedestrian and vehicle passage along the developed rights-of-way according to the Town-Council approved policy and priority system.

The Snow and Ice Control Policy establishes the objectives, standards, priorities and service levels of the snow and ice control program. An effective and efficient snow and ice control program 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 Town infrastructure including roadways, sidewalks and pathways.

The Town of High River will manage snow and ice control operations on Town infrastructure within Town of High River Rights of Way in accordance with Council approved policy and priority system, relevant Bylaws and the Municipal Government Act (MGA).

It is expected that there will be Extreme Winter Conditions where the immediate demand for snow and ice control services will exceed the available resources. Public Service Announcements may be issued at these times to provide information and to encourage safe driving practices in these poor driving conditions.

2. PURPOSE

This purpose of this policy is to:

- Provide direction in maintaining safe and functional conditions on roadways and sidewalks so as to minimize hazards and economic loss to the community, and to permit pedestrians to travel with reasonable care;
- Ensure safe access for emergency vehicles providing Fire, Police and Emergency Medical Services;

- Provide standards for management and operating personnel in the handling of winter maintenance operations; and
- Outline citizens' responsibilities regarding sidewalk snow and ice control in residential areas and on private property.

3. DEFINITIONS

Arterial Roads	Major roadways that carry high volumes of traffic. They are generally four or more lane roadways carrying over 20,000 vehicles per day.
Bare Pavement/Surfaces	The continuous plowing, and salting and sanding of the driving lanes of a road or sidewalk until bare pavement is achieved.
Bus Routes	Determined routes used for transporting students to and from schools.
Collector Road	This type of roadway carries vehicles between major and residential roadways. It may be divided and have more than two travel lanes with full access to adjacent properties. These roadways carry moderate volumes of traffic between 5,000 to 19,000 vehicles per day.
De-Icer	The chemical agent that the Town of High River mixes with sand to control ice.
Director	The Director of Engineering, Planning & Operational Services or his/her designate.
Emergency Access Routes	Roads providing access from major, collector roadways or bus routes to a hospital, police station, fire station or emergency medical services center.
Extreme Winter Conditions	Where the immediate demand for snow and ice control services will exceed the available resources. Normally this will trigger Council to declare a snow emergency and provide the Roads Maintenance Division with additional funds to increase the response using contracted services.
Happy Trail	A part of the network of pathways around Town that provide walking and cycling routes for residents independent of roadways.
Hard Pack Snow	Snow is allowed to accumulate and be compacted on a road.
Ice Control	The application of abrasives and/or chemical de-icers to the surface of roads, sidewalks, steps and pathways to improve traction and to control or eliminate the formation of ice.
Lanes	Also known as back alleys, lanes provide access to the rear of properties
Manager of Operational Services	The person holding the title of Manager of Operational Services or his/her designate.
Pathway	A route restricted to pedestrian use and non-motorized vehicles that typically has an asphalt surface
Passable Road	A road with a total accumulation of less than 12 centimetres of packed snow.
Pre-wetting	Application of a brine solution, beet juice or another liquid option as snowfall begins to create a "brine sandwich" effect to prevent compacted snow from adhering to the pavement, reducing the formation of ice on the roadway.
Residential Street	An undivided roadway that provides direct access and collects traffic from abutting residential properties and distributes this traffic to higher standard

	roadways.
Sanding	The application of abrasive materials mixed with road salt to roadways and sidewalks to improve vehicle traction and promote safe traffic flow.
Sidewalk	The part of the roadway intended for the use of pedestrians which may be alongside the road or separated by a boulevard.
Snow Drifting	The deposit of windblown snow on roadways or lanes which makes the passage of vehicle traffic impossible.
Snow Emergency	A winter storm that overwhelms the base complement of snow fighting equipment and personnel. Actions can include banning all traffic except emergency personnel, restrictions or prohibitions to on-street parking and closure of public buildings. Normally issued before the storm begins as drivers may not be able to reach their destinations after it has begun.
Snow Plowing	Pushing accumulated snow from the roadway's surface either to the sides of the roadway or the center of the roadway to ensure that travel lanes, turn lanes and ramps are passable to traffic.
Snow Removal	The removal of plowed and accumulated snow that is restricting the flow of traffic, parking, and pedestrians or restricting visibility for traffic and pedestrians, to a snow dump or nearby green space.
Street Storage	The on-street storage of plowed snow.
Swath	A broad strip of cleared snow typically 2 metres in width on a sidewalk and 3 metres in width on a roadway.
Problem Areas	Identified areas such as hills which may cause traffic congestion or be a driving hazard if Ice Control occurs as a lower priority or continuous Ice Control does not occur.
Walkway	Similar to a pathway, but typically a connector between two houses joining two roads, or a road and a lane.
Windrow	A continuous pile of snow along a roadway as a result of snow plowing by a truck or grader.

4. WINTER MAINTENANCE

The Town of High River Operational Services Division sands, salts, plows streets and removes snow from sidewalks based on the priority ratings and level of service set within this policy, as well as other factors which may include:

- The temperatures before, during and after a storm.
- The duration of the storm.
- The amount of accumulated snow.
- The road surface temperature.
- Wind speed and direction.
- The weather forecast for the following days.
- The likelihood of a complete thaw based on weather forecasts.

For the purpose of ice control, snow plowing and snow removal, the entire street system is assigned to one of four priority classifications. Emphasis of operations shall be generally in order of assigned

street classification priority. When necessary, for reasons of safety, available resources, and at the discretion of the Manager of Operational Services, the order of priority for the provision of the required services may be altered.

4.1 Plowing, Sanding and Salting

- (a) Truck-mounted plows are used to plow snow off the driving lanes during salting and sanding operations.
- (b) Specialized equipment will be required for snow removal in the Downtown area. Equipment includes: polyurethane blades for the plows, nonmetal brushes for the sweepers, and smaller trucks for plowing on specialized street scapes.
- (c) Crews adjust snow and ice control materials depending on the prevailing temperature and weather conditions as follows:
 - i. Salt is used to melt snow and ice on roads when road surface temperatures are between 0 and -5C;
 - ii. When road temperatures drop below -5C, a sanding chip mixture of 5-6% salt, 94%-95% & suitable sand chips is used to improve traction; and
 - iii. Pre-wetting with a brine solution, beet juice, or another liquid is used on Priority One routes as snowfall begins when road surface temperatures are above -10C.

4.2 Snow Fencing

Snow fencing will be used in known areas as a tool to stop blowing snow from accumulating on roadways as directed by the Manager of Operational Services.

4.3 Snow Removal and Storage

Snow removal commences when plowed snow restricts traffic in the Downtown Core and on major arterial roadways or reaches a windrow height of 60 centimetres downtown and 100 centimetres in other Priority One or Priority Two roadways. All snow removed is hauled to designated snow storage sites. Elimination of windrows on an as needed basis will be executed at the discretion of the Manager of Operational Services.

4.4 Ice Control

Ice Control will be performed as needed with the same priorities as set out for snow removal in Section 4.6.

4.5 Responsibility of Residents and Business Owners

Residents and businesses will be responsible for snow removal on sidewalks fronting their properties in accordance with Bylaw 3622.89. Enforcement of Bylaw 3622.89 will be waived for those property owners fronting sidewalks in the downtown core as shown on Figure 2 for the 2014-2015 winter seasons.

4.6 Level of Service Objectives

(a) The policy will be to provide sufficient resources to conduct snow and ice control operations in an endeavour to meet the following standards at all times:

Priority	Designated Areas	Commencement of Operations	Standard to be Achieved
Priority 1 Routes (Figure 1)			
	<ul style="list-style-type: none"> Former Highway 2A within Town limits including Centre Street and 12th Avenue between Centre Street and HWY 2. 	To Ministry of Transportation of Alberta Standards	
	<ul style="list-style-type: none"> Major thoroughfares, arterials, collectors Designated emergency routes (adjacent to hospitals, police stations, and hospitals) Traffic lights and signalized controlled crosswalks Regular school bus routes Downtown business core Joint Administration building and RecPlex parking lots 	Prior to snow accumulations reaching four (4) centimetres	<ul style="list-style-type: none"> Through lanes plowed and sanded Complete within 24 hours of snowfall ending
	<ul style="list-style-type: none"> Downtown Core Roads (Figure 2) 	Prior to snow accumulations reaching four (4) centimetres	<ul style="list-style-type: none"> Packed snow will be permitted up to 4cm on travel lanes and 8cm in parking lanes before hauling may be required dependent on event and weather conditions Feather plowing will occur during event as well as salting and sanding
	<ul style="list-style-type: none"> Downtown Core Sidewalks (Figure 2) 		<ul style="list-style-type: none"> Swath cleared by 8:00AM on weekdays and Saturdays Full snow removal within 24 hours of snowfall ending In the event of continuous snow fall, continuous clearance of paths during business hours Continued operations to clear as directed by the Manager of Operational Services

Priority	Designated Areas	Commencement of Operations	Standard to be Achieved
Priority 2 Routes (Figure 1)			
	<ul style="list-style-type: none"> Roads which have grades of 8% and greater Areas reported by the RCMP Intersections, corners, hills, school zones, playground zones Remaining Town facilities 	Prior to snow accumulations reaching six (6) centimetres	<ul style="list-style-type: none"> Through lanes plowed and sanded Complete within 48 hours of snowfall ending
	Happy Tail Network	When snow accumulation reaches 6 centimeters	<ul style="list-style-type: none"> Trails plowed Sand and salt will be applied in problematic areas as required Dependent on event and resources available snow clearing may not occur until completion of Downtown Core sidewalks Complete within 48 hours of snowfall ending
Priority 3 Routes (Figure 1)			
	<ul style="list-style-type: none"> Residential areas 	Hard pack standard applies Prior to snow accumulations reaching twelve (12) centimetres.	<ul style="list-style-type: none"> Once priority 1 and 2 standards have been achieved
Priority 4 Routes			
	<ul style="list-style-type: none"> Residential and Commercial Lanes 	Hard packed snow as required for access	<ul style="list-style-type: none"> Where access is essential

(b) The Manager of Operational Services shall have authority to utilize contracted services where, in his discretion, resources additional to the Town's labour and equipment are potentially needed to meet the service levels.

5. RESPONSIBILITIES

5.1 Manager of the Operational Services Division

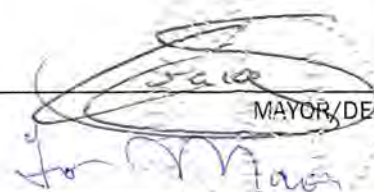
- (a) The Manager of Operational Services is authorized to implement this policy and bring forward any changes in the policy upon direction of Town Council.

- (b) The Manager of Operational Services shall provide a report to Council by June 30 of each year outlining the previous winter's operations, its successes, failures, challenges and costs, and will make recommendations to Council regarding potential policy amendments.


Approval

This policy shall come into force and effect upon adoption by Council at a Regular or Special Meeting.

December 8, 2014, Regular Meeting of Council
RESOLUTION ##554/2014



MAYOR/DEPUTY MAYOR



CHIEF ADMINISTRATIVE OFFICER/
DIRECTOR OF LEGISLATIVE AND ADMINISTRATIVE SERVICES

October 23, 2017

DATE

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