



FORTFRANCES
BOUNDLESS

**WINTER CONTROL OPERATIONS
OPERATIONS AND FACILITIES 4.1**

POLICY

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Revised:	1993,1999,2006,2008,2009,2010,2018, 2020, 2021, 2023
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1. POLICY & OBJECTIVES

1.1. POLICY

The following Winter Control Operations Policy is intended to establish a set of guidelines for the orderly and efficient response to and management of snow and ice in the Town of Fort Frances.

This policy will provide the framework for an acceptable level of service at an acceptable cost, utilizing readily available resources to meet the established [Minimum Maintenance Standards, Ontario Regulation 239/02](#) for municipal winter control operations.

Adherence to this policy will aim to ensure that roads and sidewalks are maintained to a degree that will minimize economic loss for the community, mitigate or prevent accidents and injuries and provide an unimpeded road network for emergency services.

With this policy, the residents of the Town of Fort Frances will be provided with a consistent and uniform level of services, which will enable them to anticipate winter control operations.

This policy will be reviewed annually and is subject to change at the discretion of the Manager of Operations and Facilities, the Transportation Superintendent or Mayor and Council.

1.2. OBJECTIVES

The objective of this Policy is to define standards to be maintained and procedures to be followed, to reduce the hazards resulting from winter snow and ice, in order to maintain the Town of Fort Frances' roadways and sidewalks in a safe condition.

Winter Control standards establish levels of service for snow and ice control based on road classes and priority routes for roadways and sidewalks, to ensure the safe and efficient movement of people, goods, and services, throughout the municipality.

Winter Control procedures indicate the actions to be taken in order to maintain the above-noted standards. The procedures, in conjunction with the standards, recognize that winter control measures cannot be carried out on all roadways and sidewalks at the same time, and due to the associated risk management, must follow the priorities as defined by the classifications of the roadways and sidewalks.

2. WINTER CONTROL OPERATIONS - GENERAL

2.1. WINTER CONTROL SEASON

The Winter Control Season referred to throughout this policy will be in affect from October 1st to April 30th.

2.2. RESPONSIBILITY

The Operations and Facilities Division is responsible for the winter maintenance on all municipal roads, laneways, sidewalks and parking lots within the boundaries of the Town of Fort Frances.

Included within the maintenance portfolio is 162 lane-km of roadway, 43 km of sidewalks, 20km of laneways, and fourteen (14) parking lots including those serving municipal buildings and park.

2.3. HOURS OF OPERATION

During the winter control season staffing is scheduled to provide coverage for two (2) shifts, five (5) days a week. There will be a 7:30 a.m. to 4:00 p.m. day shift and a 10:00 p.m. to 6:00 a.m. night shift from Monday to Friday.

The night shift will be implemented when at the discretion of the Manager of Operations & Facilities and Transportation Superintendent there is sufficient amounts of snow to justify taking six (6) employees from the day shift and that work in progress can be completed with this reduction in staff.

During weekdays from 4:00 p.m. to 10:00 p.m. and 6:00 a.m. to 7:30 a.m. and on weekends staffing is arranged on a voluntary basis. Emergency and service calls are covered through an on-call person 24 hours a day, 7 days a week. During an emergency situation if the on-call person is unsuccessful in arranging sufficient crews to respond they shall consult with the Manager of Operations & Facilities or Transportation Superintendent regarding the use of contracted equipment.

2.4. EQUIPMENT

The Operations and Facilities Division has the following primary equipment available for winter control use. The assignment of the available equipment can vary depending on mechanical failures, personnel availability and emergency scenarios:

- Two (2) motor graders
- Two (2) front end wheel loaders
 - One (1) full size blower attachment
- One (1) tandem axle sander truck
- One (1) tandem axle plow truck c/w sander
- Two (2) sidewalk tractors c/w blowers and sander
- One (1) loader backhoe
- Two (2) tandem axle dump trucks

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- One (1) single axle plow truck c/w sander

In emergency situations, the following supplemental equipment may be available for redistribution from other internal divisions:

- One (1) front end wheel loader (airport)
 - One (1) full size blower attachment
- One (1) loader backhoe (Parks and Cemeteries)

Town owned equipment will be supplemented by contract operated equipment and trucks on an as required basis.

2.5. MANPOWER

The Operations and Facilities Division has the following available winter maintenance staff:

- One (1) working foreman
- One (1) leadhand
- Four (4) equipment operators
- Two (2) truck drivers
- Six (6) labourers
- Three (3) seasonal Labourers

When the night shift is activated, a rotational schedule comprised of six (6) employees from the above listing will be scheduled.

In an emergency situation additional staff would be available to assist from other internal departments including mechanical, water distribution, stores and engineering.

2.6. DAMAGE RESULTING FROM WINTER CONTROL OPERATIONS

Snow plowing and snow removal can result in property damage, especially to landscaping if the ground is not entirely frozen. Residents are advised to contact the Public Works Department when damage is first noticed. The homeowner's name and address will be added to a list for repair when weather permits, and materials are available.

Damage to municipal boulevard sod will be repaired in the spring. Boulevard reinstatement will be completed using topsoil and seed only.

2.7. DRIVEWAY ENTRANCE CLEARING

It can be expected that snow will be plowed into driveways and pathways as a normal part of roadway and sidewalk snow plowing operations. Owners of properties which the driveways and pathways service will be responsible for removal of the snow deposited in those entrances by town snow clearing operations.

Private property owners will be expected to clear and manage their snow and ice in compliance with the [Snow Removal By-law \(#15/18\)](#).

2.8. PARKING REGULATIONS AND ENFORCEMENT

Parking restrictions and regulations authorized in the [Traffic Control By-law \(#21/14\)](#) (i.e. calendar parking, parking prohibited, etc.) have been placed on town streets and will be strictly enforced to allow winter control operations to proceed unimpeded. Important no-parking restrictions are in place in the downtown area restricting parking between 3:00am and 8:00am.

In the event that a Significant Weather Event has been declared in accordance with Section 3.4 of this policy, all on street parking shall be prohibited for the duration of the event to expedite the roadway clearing operations. This restriction only applies between the hours of 7:30pm and 7:30am and covers the entirety of the Town of Fort Frances other than the Downtown Core.

The Town's By-law Enforcement Officers will publicize the appropriate calendar parking by-law. Calendar parking shall be deemed to be a twenty-four (24) hour period commencing at nine (9) o'clock in the forenoon and after such time the day shall be deemed odd or even depending on the calendar designation of such day of commencement of the said twenty-four (24) hour period.

3. WEATHER MONITORING & PATROLLING

3.1. WEATHER MONITORING

From October 1 to April 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality.

The Town monitors a weather forecast email application which distributes current and forecasted conditions every six (6) hours, in conjunction with other weather applications and visual observations.

3.2. ROAD PATROLLING

The standard frequency of patrolling of roadways to check for conditions described in the Minimum Maintenance Standards O. Reg 239/02 is:

Table 1: Roadway Classification and Patrol Intervals

Class of Roadway	Patrol Interval	Notes
1	3 times every 7 days	No Class 1 in Fort Frances
2	2 times every 7 days	No Class 2 in Fort Frances
3	Once every 7 days	
4	Once every 14 days	

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5	Once every 30 days	
6	N/A	No prescribed interval

Roadways within Fort Frances and their associated classification are illustrated in Appendix A.

If it is determined during the weather monitoring referred to in section 3.1 that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the Town will, in addition to standard patrolling set out the table above, patrol the class 3 representative roadways once every twelve hours to check for such conditions. During weekdays this patrol will be completed once during dayshift and once during night shift, by the Transportation Superintendent, Working Foreman or designate. On weekends or holidays, this patrol will be completed by the On-call person.

3.3. SIDEWALK PATROLLING

Where there is substantial probability of snow accumulation on sidewalks, ice formation on sidewalks or icy sidewalks, the representative sidewalks along class 3 roadways will be patrolled during the road patrol identified in section 3.2.

3.4. DECLARATION OF A SIGNIFICANT WEATHER EVENT

The Operations and Facilities Division may declare a significant weather event for an approaching or occurring weather hazard with the potential to pose a significant danger to sidewalk and roadway users.

A weather hazard that would warrant the declaration of a significant weather event is determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program.

When a significant weather event is declared to start and end, the notice will be announced through the following:

- Social media: Town of Fort Frances Facebook and Twitter pages
- Radio: B93.1 The Border
- Newspaper: Fort Frances Times
- Emergency Services: Ontario Provincial Police & Fort Frances Fire Rescue

4. SNOWPLOWING

4.1. ROADS

The Minimum Maintenance Standards outlines the threshold for allowable snow accumulation on the various classes of roadways before necessitating the deployment of resources to address the conditions, as well as specifying a time frame for bringing the roadway back into compliance.

The following table outlines the road classification, snow accumulation depth where response is required, as well as the time for addressing the conditions. It should be noted that given the absence of Class 1 and 2 roadways within the Town, these will not be included.

Table 2: Roadway Classification and Snowplowing Timelines

Class of Roadway	Snow Accumulation Depth	Rectification Time
3	8cm	12 hours
4	8cm	16 hours
5	10cm	24 hours
6	Not specified	Not specified – once Class 3, 4 & 5 are addressed

Addressing snow accumulation on a roadway includes, but is not limited to:

- a) Plowing the roadway;
- b) Salting the roadway;
- c) Applying abrasive materials to the roadway (sand); or
- d) Any combination of the methods described in clauses (a), (b), and (c)

When a significant weather event is declared, upon the termination of the declaration, the timelines stipulated in Table 2 would begin to apply.

The Town, in conjunction with the timelines specified in this Table 2 above, will strive to complete the plowing of all roads within 24 hours.

4.1.1. PRIORITY PLOW ROUTE

The Priority Plow Route is generally the combination of class 3 arterial roadways that experience the greatest daily traffic totals, the designated truck route, as well as those roadways fronting emergency services bases and schools.

The Priority Plow Route will be completed with both graders and the plow truck prior to any other roads in Town.

Loaders will be dispatched accordingly to clear windrows from the entrances of emergency services bases.

It should be noted that it is not practical to plow the downtown zone #1 during regular business hours (8:00 a.m. to 10:00 p.m.). During this period, sand will be applied until such time that plowing can effectively commence. The Applicable starting locations for equipment will be adjusted based on the individual snow event and time of day.

The Priority Plow Route is illustrated in Appendix B.

4.1.2. SECONDARY PLOW ROUTE

The Secondary Plow Route generally begins in the downtown zone #1. Applicable zone references are illustrated in Appendix C. The two graders will complete the downtown zone #1, after which:

- One will go west and complete zones #2W, #3W and #4W before moving to the east to assist the other operator.
- The other grader will move east completing #2E and #3E zones in sequence.

The plow truck will complete the assigned northern zones #2N and #3N in sequence as illustrated in Appendix C.

The Secondary Plow Route will also entail a front-end loader plowing cul de sacs and dead-ends. Operations will stagger the starting point for cul de sacs and dead-ends based on the following schedule:

Table 3: Cul De Sac and Dead-end Starting Locations

Month	Starting Location
October	East
November	West
December	East
January	West
February	East
March	West

Additionally, the class 6 roadways will be plowed upon completion of all other Class 3, 4 and 5 roadways.

4.2. PARKING LOTS

The plowing of parking lots, especially those in the downtown core, is most efficient to complete during night shift. Parking lots will be cleared by a front-end loader. Town crews are responsible for plowing the following parking lots, which are shown in Appendix D:

- Municipal Lot on 100 Block of Scott Street *
- Municipal Parking Lot on 300 Block of Nelson Street behind St. Mary's Church *
- Municipal Lot on 400 Block of Portage Avenue *
- Municipal Lot on 300 Block of Veteran Avenue *
- Civic Centre South & West Lots *
- Water Tower *
- Fort Frances Seniors Centre (parks)*
- Public Works Yard and Lots
- Legion Park
- Marina Parking Front Street

- McIrvine Boat Launch
- Water Treatment Plant
- East End Hall (parks)
- McIrvine Rink (parks)

* Denotes priority parking lots

Operations will aim to ensure all priority parking lots are plowed within 12-24 hours of the conclusion of the snow event.

Non-priority parking lots will be completed once the priority parking lots, all laneways, dead ends and cul de sacs are plowed.

4.3. LANEWAYS

The plowing of laneways will be assigned to the front-end wheel loaders. Laneways within the downtown zone #1 will be completed during night shift.

Upon completion of the downtown zone #1 laneways, priority parking lots, cul de sacs and dead-ends, the loaders will split east and west to complete the remaining lanes as shown in Appendix D.

Operations will aim to ensure all laneways are plowed within 48-60 hours of the conclusion of the snow event.

4.4. SIDEWALKS

The Minimum Maintenance Standards outlines the threshold for 8cm of allowable snow accumulation on sidewalks prior to requiring the deployment of resources to address the conditions, as well as specifying a time frame of 48 hours for bringing the sidewalks back into compliance.

For the purposes of this policy, addressing snow accumulation on a sidewalk includes,

- (a) plowing the sidewalk;
- (b) salting the sidewalk;
- (c) applying abrasive materials to the sidewalk;
- (d) applying other chemical or organic agents to the sidewalk; or
- (e) any combination of the methods described in clauses (a) to (d).

Sidewalk blowers will be dispatched with focus on clearing the priority routes illustrated in Appendix E first. Upon completion of the priority routes:

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- The sidewalk blower that started west of Portage Avenue will complete zones #1, #2W, #3W and #2N before moving to the east to assist the other operator.
- The sidewalk blower that started east of Portage Avenue will complete zones #1, #2E and #3E.
- Upon completion of the assigned sidewalks, the riverfront walkway will then be cleared.

In the event of a declaration of a significant weather event as outlined in Section 3.4, sidewalks condition compliance will be achieved within 48 hours of the advertised end of the event.

5. SNOW REMOVAL

5.1. GENERAL

Upon completion of initial plowing operations, crews will be dispatched to begin snow removal operations. Operations will strive to complete snow removal in priority sequence, however, time of day and extreme conditions may warrant rearranging priorities.

Table 4: Snow Removal Priorities

Priority #	Snow Removal Area	Condition Warranting Snow Removal	Notes
1	Downtown snow removal area (Appendix F)	<ul style="list-style-type: none"> Snowbanks >60cm Christmas Parade preparation 	<ul style="list-style-type: none"> Night shift only
2	Fire hydrants	<ul style="list-style-type: none"> Snowbank restricting access to hydrant 	<ul style="list-style-type: none"> Completed by sidewalk blowers Both day shift and night shift
3	Overpass and Underpass	<ul style="list-style-type: none"> Restricted lane width Pedestrian restrictions 	<ul style="list-style-type: none"> Night shift only
4	Priority Plow Route	<ul style="list-style-type: none"> Restricted lane width Snow storage full Obstructed sight lines Pedestrian restrictions 	<ul style="list-style-type: none"> Night shift only Includes only Hwy 11-71, Central Ave, Scott St, Second St E, routes serving schools, Kiss 'N' Ride staging areas
5	Businesses, churches and halls (outside Downtown)	<ul style="list-style-type: none"> Snowbanks >60cm 	<ul style="list-style-type: none"> Both day shift and night shift
6	Intersections	<ul style="list-style-type: none"> Obstructed sight lines Snowbanks >90cm Pedestrian restrictions 	<ul style="list-style-type: none"> Both day shift and night shift Remove 15m back from intersection
7	Lane entrances	<ul style="list-style-type: none"> Obstructed sight lines Snow storage full 	<ul style="list-style-type: none"> Both day shift and night shift
8	Municipal parking lots	<ul style="list-style-type: none"> Snow storage full Operational impacts resulting from lost parking stalls 	<ul style="list-style-type: none"> Night shift only
9	Residential streets	<ul style="list-style-type: none"> Two lanes not maintained Snow storage full 	<ul style="list-style-type: none"> Both day shift and night shift

6. SANDING AND/OR SALTING OPERATIONS

6.1. GENERAL

6.1.1. APPLICATION OF SAND

The objective of sanding is to increase vehicular traction by applying a sand/salt mixture after the snow event, or in special circumstances during the event.

Fort Frances uses a sand/salt mixture of 20% salt and all references to sand or sanding within this policy refer to this particular mixture.

Application of sand is often strategized at intersections and corners, and only under certain conditions will entire roadways be sanded.

Sand is also used when air temperatures fall below minus 12 degrees Celsius, where salt loses its effectiveness to bare roads off. When temperatures fall too low for salt, roads are sanded in the same manner as they would have been salted.

Fort Frances can encounter extensive cold periods during the winter control season where sand is a very important tool for maintaining safe roadways. Sanding rates are higher than salt rates because it is used as an abrasive rather than a de-icer.

6.1.2. APPLICATION OF SALT

Straight road salt may be applied to certain roads within the Town when conditions warrant. It is not an objective of this policy to provide bare pavement conditions on all roads. Typically, salt is applied when:

- a) Air temperature is -12°C or warmer;
- b) Sun is present in the forecast;
- c) Commuter traffic is present to assist in the formation of brine;
- d) Freezing rain adheres to the roadway (de-icing);
- e) Snow and ice have adhered to the roadway (de-icing); and
- f) Selectively placed prior to a pending freezing rain event (anti-icing).

Normally, salt should never be applied when the temperature is cooler than -12°C; however, in the presence of sun and heavy traffic volume, which creates higher road surface temperature, salt can sometimes be effectively applied to a temperature of -18°C.

6.2. ROADS

The minimum maintenance standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

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- a) Monitor the weather in accordance with Section 3.1 of this policy;
- b) Patrol representative roadways in accordance with Section 3.2 of this policy; and
- c) Upon completion of a) and b), if it is determined that there is a substantial probability of ice forming on a roadway, treat the roadway to prevent ice formation within the time set out in the Table 5 below:

Table 5: Ice Formation Prevention

Class of Roadway	Time
3	16 hours
4	24 hours
5	24 hours

If the municipality meets the above noted minimum standard and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the time that the municipality becomes aware of the fact that the roadway is icy. Upon becoming aware of the icy condition, the Town will treat the roadway with sand, salt or a combination of sand and salt within the time set out in the Table 6 below:

Table 6: Treatment of Icy Roadways

Class of Roadway	Time
3	8 hours
4	12 hours
5	16 hours

In the event of a declaration of a significant weather event as outlined in Section 3.4, icy roadways will be addressed within the stipulated timelines of Table 6 from the advertised end of the event.

6.3. SIDEWALKS

The standard for the prevention of ice formation on sidewalks is to:

- a) monitor the weather in accordance with section 3.1 in the 24-hour period preceding an alleged formation of ice on a sidewalk; and
- b) treat the sidewalk if practicable to prevent ice formation or improve traction within 48 hours if the municipality determines that there is a substantial probability of ice forming on a sidewalk, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose.

If the municipality meets the above noted minimum standard and, despite such compliance, ice forms on the sidewalk, the sidewalk is deemed to be in a state of repair in respect of ice until 48 hours after the municipality first becomes aware of the fact that the sidewalk is icy.

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Upon becoming aware that a sidewalk is icy, the Town will treat the icy sidewalk with sand, salt or a combination of sand and salt within 48 hours of becoming aware.

In the event of a declaration of a significant weather event as outlined in Section 3.4, icy sidewalks will be treated within 48 hours of the advertised end of the event.

6.4. LANEWAYS AND PARKING LOTS

The Operations and Facilities Division will not sand or salt any laneways. Only under extreme icy conditions will the Town sand or salt laneway approaches in the downtown zone #1 only.

The Operations and Facilities Division will sand or salt municipal parking lots under extreme icy conditions at the discretion of the Manager of Operations and Facilities or Transportation Superintendent.

7. APPENDICES

- Appendix A - Fort Frances Roadway Classification
- Appendix B - Roadway Plowing – Priority Route
- Appendix C - Roadway Plowing – With Zones
- Appendix D - Laneway & Parking Lot Plowing
- Appendix E - Sidewalk Plowing – With Zones
- Appendix F - Downtown Snow Removal