Corporation of the Town of Petawawa

By-law 1421/21

Being a By-law to Adopt a Winter Control Policy for the Town of Petawawa

Whereas the *Municipal Act*, 2001, S.O. 2001, c.25, as amended, states a lower-tier municipality may pass by-laws for services and things that the municipality is authorized to provide for;

And Whereas the *Municipal Act*, 2001, S.O. 2001, c.25, as amended, provides that a municipal power shall be exercised by by-law;

And Whereas Council adopted By-law 1150/17, being a by-law to adopt a winter maintenance policy, on October 2, 2017;

And Whereas Council wishes to complement the winter maintenance policy by adopting a winter control policy;

Now Therefore be it enacted by the Council of the Corporation of the Town of Petawawa as follows:

1. That the "Winter Control Policy" attached hereto as Schedule "A", be and is hereby adopted.
2. That Schedule "A" is deemed to form part of this by-law.
3. That this by-law shall come into force and take effect following third reading.

By-law read a first and second time this 3rd day of August, 2021.

By-law read a third time and passed this 3rd day of August, 2021.

Signature of the Mayor (Original Signed)

Signature of the Clerk (Original Signed)

Schedule “A” to By-law 1421/21

Winter Control Policy

Public Works Department

Winter Control Policy

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Section 1.0 Policy

1.1 The Town of Petawawa will ensure that roadways are maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate access for emergencies by the emergency responders and police service.

1.2 The Town has established a level of service that is appropriate for winter control operations for municipal roads, sidewalks, and parking lots, and to allocate the appropriate budget and resources that are needed to provide that level of service.

1.3 As a minimum, the Town of Petawawa has adopted through By-law 1150/17, *Ontario Regulation 239/02* titled “Minimum Maintenance Standards” as a baseline for winter control operations. [See Appendix “E”]

1.4 The Town acknowledges that there may be times, when due to the severity of a particular winter event, the level of service may not be achieved within the usual timeframe. Under such circumstances the Town will issue a “Significant Weather Event” (*Ont. Reg. 239/02* Section 16.9). The Town’s CAO, or designate is responsible for issuing the Significant Weather Event, and also for providing notification that the event is over. The Town will endeavour to recover winter maintenance operations in accordance with the winter control policy as soon as practicable. [See Appendix “F”]

Section 2.0 Objectives

2.1 The objective of the Winter Control 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 Petawawa’s roadways and sidewalks in a safe condition.

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

2.3 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 required risk management, must follow the priorities as defined by the classifications of the roadways and sidewalks.

Section 3.0 Responsibilities

3.1 The Director of Public Works is ultimately responsible for the winter control operations within the Town of Petawawa.

3.2 The Manager of Public Works, reporting to the Director of Public Works, is directly responsible for winter control operations.

3.3 The Manager or Lead Hand is responsible for ensuring the response to winter events is in accordance with this Winter Control Policy. The Manager, along with the Lead Hand, will be familiar with this policy and will conduct winter control operations in an efficient manner to achieve and maintain safe roads and sidewalks.

3.4 Public Works staff, including heavy equipment operators, labourers, and mechanic, will operate snow clearing equipment in a safe and efficient manner at all times. Staff are responsible for ensuring their vehicles and/or equipment is in a safe and mechanically ready state. Operators will also be responsible to ensure that their respective route is completed in accordance with the Winter Control Policy. Staff will report to the Lead Hand or Mechanic if there are any mechanical problems with their equipment, at the start and end of each shift.

Section 4.0 Winter Control Operations-General Information

The Town of Petawawa is a dynamic community with a rich history. The Town consists of 119 km of paved roadway, 4 km of gravel roads, and 44 km of sidewalks. The Town is located in a picturesque setting along the Petawawa and Ottawa rivers. Town residents enjoy an active lifestyle, and the enjoyment of the outdoors is evident in all seasons. The Town is especially proud to have Garrison Petawawa as a community member. Canadian Nuclear Laboratories resides just North West of Petawawa, and many area residents are employed at these two locations. The Town of Petawawa is the largest community within the County of Renfrew with over 17,000 residents. Town residents enjoy excellent roads and sidewalks, along with extensive nature paths and parkland. The Town of Petawawa Public Works Department provides maintenance operations through all seasons, with the most important being winter control operations.

The Town of Petawawa monitors winter weather between November 1st and April 30th. On average the Town receives over 200 centimetres of snow each winter. A major snowfall typically would produce 25 to 35 cm of snow.

The Manager of Public Works is responsible for all winter control operations, with the Lead Hand taking active responsibility on a daily basis for patrols and staff call-outs in response to winter events. Staff can be quickly mobilized for operations with typical response times being a half hour or less. Equipment is typically mobilized, loaded with product, and on the road within one hour after call-in.

As the municipality continues to grow, the maintenance of streets and sidewalks is reviewed each year, and adjusted, as necessary, to take into account the addition of new infrastructure.

Section 4.1 Equipment

The Town winter control fleet consists of the following equipment:

- Six (6) combination units for plowing and application of salt or sand;
- Five (5) sidewalk tractors equipped with ploughs, snow blowers, and sand/salt spreaders;
- One (1) service truck to feed material to sidewalk tractors;
- One (1) loader for material loading;
- One (1) loader equipped with front plow for snow clearing, and large snow blower attachment for snow removal operations; and
- Two (2) tractor/loader/backhoes for drain opening, and hydrant cleaning.

The Public Works Department is organized in this fashion:

- Director of Public Works;
- Manager of Public Works;
- Lead Hand;
- Six (6) heavy equipment operators;
- One (1) mechanic/heavy equipment operator;
- Five (5) winter labourers hired seasonally to operate sidewalk tractors.

Section 4.2 Hours of Work

Public Works staff work a regular 7:00 a.m. to 3:30 p.m. shift, Monday to Friday. The Lead Hand or Manager of Public Works will initiate staff call-ins for winter operations outside the regular work shift. Typically week day call-ins occur between 4:00 a.m. and 5:00 a.m. depending on conditions. Staff will also work later than 3:30 p.m. if conditions warrant.

There is no regular shift on Saturday or Sunday. Winter control operations during the weekend are initiated by the Lead Hand or Manager. The Lead Hand, or Manager, or both, are present during winter control operations to deal with by-law infractions, and/or equipment break-downs. The mechanic is utilized as an operator for winter control operations, but is available to deal with mechanical break downs should they arise.

Note: The Town of Petawawa adheres to hours of work legislation, and as such staff cannot work more than 13 hours in a shift. This is in accordance with the *Highway Traffic Act* (*O. Reg. 555/06*) Hours of Service legislation. Only in the event of a Significant Weather Event being declared, could the hours of service be extended.

Section 4.3 Operational Format and Level of Service Goals

The Town of Petawawa passed By-law 1150/17 in October 2017. This by-law set *Ontario Regulation 239/02* (*Minimum Maintenance Standards*) as a baseline for winter control operations [see Section 1.3]. The Public Works Department endeavours to meet the standards set forth in *Ontario Regulation 239/02* (as amended from time to time).

Section 4.4 Emergency Services

The Public Works Department has a staff member on call after-hours seven (7) days a week. The staff member is available to respond to Police and/or fire emergencies. Typical calls would be for motor vehicle accident site cleanup, trees down, road closures for firefighting, and winter control operations in response to water main breaks, where roads require salt/sand due to formation of ice.

Section 5.0 Winter Preparations

Weather Monitoring

From November 1st to April 30th, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift. The weather is printed and kept on file. Weather warnings are also printed and kept on file. The Manager and Lead Hand both use smart phones and can access weather apps at any time of day or night. As well, the Lead Hand has a tablet in his patrol truck with access to weather apps.

For the purposes of this section, “weather” is defined as air temperature, wind, and precipitation.

Patrolling

The standard for the frequency of patrolling roadways shall be in accordance with the *Minimum Maintenance Standards*, as set out in Table 5.1 below:

Table 5.1 Patrolling Frequency

Class of Roadway	Time
3	Once every 7 days
4	Once every 14 days
5	Once every 30 days

O. Reg. 239/02, s. 3

If there is a substantial probability of snow accumulation on roadways, ice formation on roadways, or icy roadways, the minimum standard for patrolling highways is, in addition to that set out in the Table above, to patrol roadways that the municipality selects as representative of its roadways, at intervals deemed necessary to check for such conditions.

The Manager and/or Lead Hand complete a daily patrol sheet throughout the winter months. The patrol sheet can be found in Appendix “B”.

GPS Systems

The Town of Petawawa Public Works Department utilizes GPA tracking for all wheeled vehicles, including patrol half ton trucks, plow trucks, and sidewalk units.

Patrol trucks utilize thermal temperature sensors to track air and road temperatures. The thermal sensors are important for decisions regarding material selection and application rates to counter winter road conditions.

The Manager and Lead Hand patrol vehicles have dash mounted patrol cameras that record sections of roadway during daily patrols. As well there is an onboard weather log that can be viewed and logged as part of our minimum maintenance requirements for daily weather checks. These devices allow the patroller to record the weather, using touch screen prompts, as observed during patrols throughout the shift.

Hydrant Markers

Public Works staff attach hydrant markers prior to the winter season. The clearing of snow around fire hydrants begins after the plowing of streets and sidewalks are completed and as resources permit.

Fire hydrants will not necessarily be cleaned of snow after each snow storm. Fire hydrants will be cleared to provide adequate access to all ports when snow on the boulevard accumulates to a height that may interfere with the accessibility to the fire hydrant.

Equipment Preparation

As the winter season ends in April, all sidewalk unit plows, blowers, and sanders are cleaned, inspected, greased, and repairs completed prior to storage. This ensures the implements are ready for the next winter season.

The same practice is used for the plow trucks. All plows and wings are inspected and cleaned. Cutting edges are changed if needed and the plows and wings are painted and oiled prior to storage.

Calibration is completed on spreader units as required.

Section 6.0 Snow Plowing Operations-Public Roads

After the snow accumulation has ended, the duration to clear the snow to a depth less than or equal to the depth set out in the table, within the time set out in the table.

Table 6.0 Snow Accumulation

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

O. Reg. 239/02, s. 4

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).

It is important to note that there are no Class 1 or Class 2 roads within the Town of Petawawa. The Town is comprised of Class 3, Class 4, and Class 5 roads.

The roadways within the Town of Petawawa have been sub-divided into designated plow routes. The plow routes can be found in Appendix “A”.

Plow routes are designed to maximize staff efficiency with routes being similarly sized so route completion times are similar. Plow routes are designed to clear the busiest roads first, thus impacting the greatest amount of drivers possible. Secondary routes are cleared first due to higher traffic volumes, and residential areas which include cul-de-sacs are cleared after.

It is important to note that the Town of Petawawa is a lower-tier municipality within the County of Renfrew. As such, the County of Renfrew maintains and completes winter control operations on several Arterial (primary routes) within the Town. These roads include:

- Victoria Street, County Road #16;
- Laurentian Drive, County Road #25;

- Doran Road, County Road #26;
- Barron Canyon Road, County Road #28;
- Murphy Road, County Road #37;
- Petawawa Boulevard, County Road #51; and
- Paquette Road, County Road #55.

Please refer to Appendix “A” (plow routes), which contains the County roads running within the Town boundaries.

Public Works staff will begin winter control operations in the general priority sequence set out in the prescribed plow routes or as directed by the Manager or Lead Hand, taking into account the start and expected duration of a winter storm event.

It is acknowledged that in the event of emergencies, mechanical breakdowns, accidents, or other operational problems, objectives set forth may not be met.

Section 6.1 Snow Clearing Operations-Sidewalks

Sidewalks are classified in accordance with the associated pedestrian traffic and proximity to high volume roadways, in addition to the ease with which they can be cleared. Sidewalk clearing operations typically begin one (1) to two (2) hours after plow operations commence to lessen conflicts between road and sidewalk clearing equipment. The Town of Petawawa hires five (5) contract operators for a six month term, running from mid-October to mid-April. This staff complement operates sidewalk tractors and one service truck that provides sand/salt for the tractors to spread on the sidewalks.

The Town of Petawawa breaks the sidewalk network down into four (4) routes. The sidewalk routes can be found in Appendix “B”. [Any deviation from the assigned routes will be verbally explained to the operator].

It is the objective to clear sidewalks as soon as possible after a storm has ended. Sanding and salting of sidewalks is completed while plowing operations are completed. When operators are using snow blowers to move heavy snowfalls, sanding and salting of the sidewalks will sometimes wait until after the walkways are cleared. The Manager and Lead Hand are responsible for staff direction and decide which implements are used for sidewalk clearing and what material is applied to the walkways.

Section 6.2 Municipal Parking Lots

There are nine (9) municipal parking lots. They are as follows:

1. Town Hall/Fire Station #2 (1111 Victoria Street);
2. Petawawa Civic Centre (16 Civic Centre Road);
3. Fire Station #1 (23 Schwanz Road);
4. Norman Behnke Hall (11 Norman Street);

5. Kiddyland Parking Lot (11 Herman Street);
6. Petawawa Terrace Parking Lot (17 Sunset Crescent);
7. Pineridge Crescent outdoor rink parking lot (677P Pineridge Crescent);
8. OPP Upper Ottawa Valley detachment (1913 Petawawa Boulevard); and
9. End of Norman Street (parking area for Algonquin Trail Trailhead).

All municipal parking lots have snow clearing and snow removal contracted out on an annual basis.

Section 7.0 Sanding and/or Salting Operations

Stockpiling of Winter Sand and Salt

Sanding preparation begins with the placement of approximately 3,000 tonnes of OPS specified winter sand in the storage facility at the Public Works Yard, situated at 19 Industrial Avenue.

The sand is mixed with approximately 5% salt to maintain the workability of the winter sand mix and to improve de-icing capabilities. This operation takes place in August or September in preparation for the winter season and to allow sufficient time for the sand pile to dry.

Road Salt is also stored at the Public Works Yard in a separate storage building with a capacity of approximately 1,000 tonnes. Salt is delivered regularly as required throughout the winter.

Staff take pride in keeping our works yard organized during the winter months. Sand and salt loading areas are scraped clean at the end of each shift. When salt is delivered it is stockpiled in the storage shed and never left outside in the elements.

Ice Formation on Roadways and Treating Icy Roadways-Sand and/or Salt Application

The minimum 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:

(1) Monitor the weather in accordance with Section 5.0 of this policy;
(2) Patrol representative roadways in accordance with Section 5.0 of this policy; and
(3) If it is determined that there is a substantial probability of ice forming on a roadway, as a result from the activities noted above in statement (1) and (2), treat the roadway to prevent ice formation within the time set out in Table 7.2(A).

Table 7.2(A) Ice Formation Prevention

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

O. Reg. 239/02, s. 5

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 earlier of:

a) The time that the municipality becomes aware of the fact that the roadway is icy; or
b) The applicable time set out in Table 7.2(B) to treat the roadway to prevent ice formation expires.

Table 7.2(B) Treatment of Icy Roadways

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

O. Reg. 239/02, s. 5

Application of Sand

The objective of sanding is to increase vehicular traction by applying sand/salt mixture either during or after the storm event.

If sanding during a snow event the sand will typically be used only on hills, curves and intersections.

Sand is also used when air temperatures fall below minus 12 degrees Celsius and 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.

Complete sanding on all streets is carried out to address slippery conditions, hard packed snow/ice, and freezing rain, at the discretion of the Manager and/or Lead Hand.

All trucks have computerized sand/salt spreader controls. Sand spreading operations should be conducted between 30 and 40 km/hr. The recommended sand application rate is **570 kg** per two-lane kilometre for single spinner. Sand spreaders are calibrated and adjusted as required.

The Town of Petawawa can encounter long cold snaps during the winter months 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. Sanding impacts negatively on street cleanliness, storm sewer cleaning requirements, as well as air quality.

Application of Salt

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

a) Air temperature is minus 12 degrees Celsius or higher;
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 below minus 12 degrees Celsius; 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 minus 18 degrees Celsius.

Salt spreaders are calibrated and adjusted as required, at the discretion of the Manager of Public Works. Salt rates are calibrated to MTO (Ministry of Transportation) application rates.

Section 8.0 Snow Removal and Hauling

Snow Removal Objectives

The Public Works Department completes snow removal operations between snow events in all plow routes. The objectives of snow removal operations are as follows:

- Increase snow storage area for future snow events;
- Address sight line issues at intersections and driveway ends;
- Increase road width for safety of drivers;
- Allow water to properly drain to culverts and catch basins when the spring melt occurs; and

- Removal of roadside snow reduces the amount of sand and debris that enters the storm drainage system.

Snow Removal Process

After snow plowing operations are completed, windrows of snow could be removed, depending on conditions, from the sides of selected streets. This is accomplished by using a loader with large snow blower attachment, and loading the snow into Town trucks, or into contracted dump trucks. The snow is then hauled to the Town's snow disposal facility.

Windrows of snow shall normally be removed on streets where the following criteria are met:

- Where lack of adequate snow storage results in a reduction of proper lane widths;
- Where lack of adequate snow storage prohibits the reasonable movement of pedestrians using the adjacent sidewalk; and
- Where lack of adequate snow storage results in sight line issues at intersections or at resident driveway ends.

Notwithstanding the above, the Town shall take advantage of mechanically blowing snow to adjacent municipal properties to accommodate snow storage wherever possible, rather than resorting to hauling.

Windrows of plowed snow across private driveways and entrances resulting from plowing operations shall not be removed.

Some areas may necessarily receive more frequent snow removal due to blowing or drifting snow.

Section 9.0 Fire Hydrants

The clearing of snow around fire hydrants begins after the plowing of streets and sidewalks are completed and as resources permit.

Fire hydrants will not necessarily be cleaned of snow after each snow storm. Fire hydrants will be cleared to provide adequate access to all ports when snow around the hydrant accumulates to a height that may interfere with the accessibility to the fire hydrant.

The objective is to clear the snow from the fire hydrants as soon as personnel and equipment are available.

Residents are also encouraged to "adopt a hydrant" and assist with snow clearing. Such efforts by the residents are in their own best interest as it affords better fire protection to their own property as well as their neighbours'.

Hydrant flags are installed prior to the onset of winter to clearly mark hydrant locations.

Section 10.0 Winter Drainage

Over the course of the winter season, Public Works staff monitor weather conditions daily. When the forecast begins to show consecutive days of milder temperatures (typically 2-3 days @ >0 degrees Celsius) the Manager and Lead Hand will proactively investigate specified ditch locations to confirm whether snow and ice removal/clean out is warranted.

The intent of the winter drainage inspection program is to maximize the capacity of existing ditch systems in areas that are historically subject to higher run-off rates from melting snow and/or rain. Similarly, beaver dam areas are inspected, along with large diameter culverts to prevent roadway washouts.

The Public Works staff have two (2) culvert steaming units at their disposal to open frozen culverts, catch basins, and dry wells.

The overarching goal is to promote efficient drainage, and maintain roadway integrity and safety by keeping water off the travelled road surface as much as possible.

Section 11.0 Winter Sand Removal

Each spring, street sweeping equipment is deployed to collect the winter sand that was applied during the winter season.

The Public Works street sweeping equipment includes the following:

- Two (2) sidewalk unit broom attachments to sweep roads and/or sidewalks.

Street sweeping is completed by contractors hired annually to complete specific segments of the Town's road network. These segments include multi-lane roads, urban standard roads, and roads with asphalt gutters.

The duration to complete the Town-wide winter sweeping program is approximately six (6) weeks (weather permitting), and is typically completed by the end of May.

Section 12.0 Interference with Winter Control Operations

Parking situations, or road fouling issues that interfere with winter control operations are typically dealt with through application of the Town's Snow Removal By-law 683/11. [See Appendix "D"]

The Town of Petawawa has hired the Canadian Corps of Commissionaires (Ottawa Division) to provide By-law and Parking Enforcement Services. The service is provided eight (8) hours per day, seven (7) days a week, with flexibility for after-hours winter control operations.

Town staff also assist with By-law Enforcement through notices and letters that are sent out prior to the onset of winter. These notices and letters remind residents of our by-laws and enforcement policies.

Section 13.0 Damage Resulting from Winter Control Operations

Road and sidewalk snow clearing operations can result in damage to sod, especially 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 temperatures permit 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. Residents are requested to assist by watering the areas that are repaired.

Where a boulevard has been impacted by "winter kill", no maintenance shall be done by the Town. Abutting property owners may, at their discretion, take steps to help expedite the re-vegetation process. Winter kill is defined as areas of grassed boulevard that have been impacted by cold weather and sand/salt from winter control operations.

Section 14.0 Mailboxes

Public Works staff may inadvertently damage mailboxes due to the pushing force of snow. If the damage is deemed to be caused by Town plowing operations, the mailbox will be repaired/replaced by staff as soon as possible.

Section 15.0 Inquiries and/or Complaints

Inquiries and/or complaints related to winter control operations should be addressed to:

Town of Petawawa, Public Works Department
1111 Victoria Street
Petawawa, ON K8H 2E6
613-687-5536 ext. 2301
works@petawawa.ca

Complaints that are received from individuals concerning winter control operations will be addressed and followed up on, as required, by appropriate staff, within the context of the Winter Control Policy.

Appendix "A"
Plow Routes

Legend:

Plow Route #44 Green
Plow Route #33 Pink
Plow Route #49 Purple
Plow Route #40 Yellow
Plow Route #54 Orange
Plow Route #46 not shown. Completes gravel roads.
Brown shaded roads are County of Renfrew roads.

Appendix "B"
Sidewalk Routes

Sidewalk Route #43-13:

1. Leave Public Works Yard and turn onto Black Bay Road. Travel down to the Boulevard.
2. Cross the Boulevard and turn left on sidewalk. Follow that sidewalk to Silke Drive.
3. Turn right onto Silke Drive. Follow that sidewalk all the way to Laurentian Drive.
4. Bobtail back to Boulevard.
5. Turn right onto sidewalk and continue to Civic Centre Road at Boulevard. Clean around light posts on your way.
6. Turn right onto sidewalk on Civic Centre Road. Follow that sidewalk to Laurentian Drive.
7. Turn around and complete one pass on paved sidewalk on opposite side of Civic Centre Road to Leeder Lane.
8. Complete two passes on sidewalk around the school zone, as well clear trail from school to gravel parking lot at Civic Centre rink (two passes).
9. Return to Civic Centre Road and turn right. Follow paved sidewalk to Boulevard.
10. At Boulevard, turn around and complete second pass on paved sidewalk to Laurentian Drive.
11. After completing second pass, bob tail back down Civic Centre Road, and turn left onto Highland Park Drive.
12. Follow sidewalk on Highland Park Drive until you get to Concord Street.
13. Turn left onto Concord Street and follow sidewalk around horseshoe back to Highland Park Drive.
14. Continue down Highland Park Drive until you get to Winfield Street.
15. Turn left on Winfield Street and follow Winfield until you get to Greenbank Street.
16. Turn left on Greenbank Street and do sidewalk up to Civic Centre Road. Then complete opposite sidewalk back to Winfield Street.
17. Turn left onto Winfield Street and follow to Morning Star Street.
18. Turn left onto Morning Star Street and follow sidewalk to Highland Park Drive.
19. Once at Highland Park Drive turn around and bob tail back to Morning Star Street and Winfield Street intersection.

20. Hop on sidewalk at Morning Star Street and follow that back to Winfield Street.
21. Once at Winfield Street pick up and turn left. Follow back to Highland Park Drive.
22. Turn left at Highland Park Drive, follow sidewalk down to Laurentian Drive.
23. Turn around and bob tail to Newport Drive, (first street on left).
24. Complete Newport Drive. When finished turn left onto Highland Park Drive. Take Highland Park Drive to Greenvale Crescent.
25. Turn left onto Greenvale Crescent. Follow sidewalk until you come back to Highland Park Drive.
26. Once complete Greenvale Crescent, turn around and follow that street back to Boulder Creek Trail.
27. Turn right onto Boulder Creek Trail and follow street until you get to Limestone Trail.
28. Turn left onto Limestone Trail and follow sidewalk to Laurentian Drive.
29. At Laurentian Drive turn around and take your first right onto Riverstone Trail.
30. Complete Riverstone Trail sidewalk all the way back to Boulder Creek Trail intersection.
31. At Boulder Creek Trail turn left and bobtail back to Limestone Trail.
32. Cross road and complete Boulder Creek Trail to Sandstone Crescent.
33. Turn left onto Sandstone Crescent and follow to Limestone Trail.
34. Turn left onto Limestone Trail, then first left onto Turning Stone Crescent. Complete Turning Stone Crescent horseshoe back out to Limestone Trail.
35. Bobtail back to Limestone Trail and hop on sidewalk at Boulder Creek Trail intersection – head towards Boulevard.
36. At Boulevard lights, turn right and go down to Renfrew Street. Turn right on Renfrew Street and follow all the way around back to Limestone Trail.
37. Return to Boulevard lights and cross road. Hop on new trail that runs along the old rail bed.
38. Follow walking trail all the way to Doran Road and Boulevard intersection.
39. Cross road onto Mohns Avenue sidewalk on right side.
40. Take Mohns Avenue sidewalk to Ethel Street. Turn right on Ethel Street and follow sidewalk to Maple Avenue.
41. Complete Maple Avenue to the Boulevard. Turn around and bobtail back down Maple Avenue.

42. Turn right onto Pine Place and complete. Go back to Maple Avenue and follow to Mohns Avenue.
43. Continue down Mohns Avenue, then turn right onto Violet Street.
44. Complete Violet Street, and return to Mohns Avenue and continue down to Wolfe Avenue.
45. Go North on Wolfe Avenue to Victoria Street.
46. Go West on Victoria Street to Ethel Street.
47. Go South on Ethel Street down to Mohns Avenue.
48. Bobtail down Mohns Avenue to Violet Street. Go North on Violet Street to Victoria Street.
49. Go West on Victoria Street to Willard Street.
50. Go South down Willard Street.
51. Once done Willard Street, return to Victoria Street. Head West to Portage Road.
52. Head West down Portage Road to Wilson Avenue.
53. North on Wilson Avenue to Gerald Street.
54. West on Gerald Street and loop around to Daniel Avenue.
55. East on Daniel Avenue back towards Wilson Avenue.
56. Once at Wilson Avenue, bob tail back down to Daniel Avenue to Scott Avenue.
57. South on Scott Avenue to Portage Road.
58. Take Portage Road West to Dustin Drive.
59. Go South down Dustin Drive.
60. Once complete, bob tail to Terrance Drive and complete back out to Portage Road.
61. Take Portage Road and bob tail down to Audrey Street.
62. South down Audrey Street to Russell Street.
63. East on Russell Street to Selkirk Street.
64. South on Selkirk Street to Woodland Crescent.
65. West on Woodland Crescent to Oak Avenue.
66. North on Oak Avenue to Edith Street.
67. East on Edith Street to Spruce Street.
68. South on Spruce Street to Woodland Crescent, then bob tail back to Edith Street.

69. On Edith Street head East to Briarwood Drive.
70. South down Briarwood Drive to Patricia Street. Then bob tail back to Edith Street.
71. East on Edith Street to Doran Road.
72. Loop around Doran Road to Patricia Street. Head West down Patricia Street to Briarwood Drive intersection.
73. Bob tail to Herman Street at Mary Street intersection.
74. North on Mary Street to Norman Street.
75. Go East on Norman Street to John Street.
76. Go South on John Street all the way to Murphy Road.
77. Head East on Murphy Road (on the road) until Nuthatch Drive.
78. South down Nuthatch Drive until Oriole Crescent.
79. Go West on Oriole Crescent until Hummingbird Lane.
80. East on Hummingbird Lane back to Nuthatch Drive.
81. Bob tail back down Hummingbird Lane to Oriole Crescent.
82. Follow Oriole Crescent all the way back to Nuthatch Drive.

Sidewalk Route #45-15:

1. Leave Public Works Yard and head North up Industrial Avenue to Winston Avenue.
2. Hop on sidewalk at Winston Avenue and head North to Town Centre Boulevard.
3. Turn right on Town Centre Boulevard, head East to Petawawa Boulevard.
4. Turn around and head back up Town Centre Boulevard to Canadian Forces Drive.
5. Turn right on Canadian Forces Drive and proceed down to Petawawa Boulevard.
6. Cross at lights to the grocery store side, proceed North up Petawawa Boulevard to Victoria Street.
7. Turn right at Victoria Street and take sidewalk to the end at Henry's Furniture.
8. Hop across the road and take sidewalk back to Boulevard.
9. Turn right at Boulevard and head North up to base.
10. Once on base start at Festubert Boulevard/Paardeberg Boulevard intersection.
11. Take Paardeberg Boulevard East all the way down to Regalbuto Avenue.
12. Turn left onto Regalbuto Avenue and head as far as the PMFRC.
13. Once at PMFRC, turn around and head back to Paardeberg Boulevard.
14. East on Paardeberg Boulevard until you reach Ypres Boulevard.
15. Turn right onto Ypres Boulevard. Do sidewalk to dead end.
16. Follow Ypres Boulevard back down to Regalbuto Avenue.
17. Once at Regalbuto Avenue turn left and head down until Messina Street.
18. Turn left at Messina Street and follow sidewalk up to Ypres Boulevard.
19. At Ypres Boulevard bob tail down to Melfa Avenue.
20. Turn right at Melfa Avenue and head East down to Pegasus Street.
21. At Pegasus Street turn right and follow sidewalk to Brownfield Drive.
22. Loop around Brownfield Drive until you hit Moreuil Wood Boulevard.
23. At Moreuil Wood Boulevard bob tail back to Ypres Boulevard.
24. At Ypres Boulevard turn right and head North to Ortona Avenue.
25. Turn right on Ortona Avenue and follow all the way to Volturno Street.
26. At Volturno Street turn right and head towards Moreuil Wood Boulevard.
27. At Moreuil Wood Boulevard turn around and go back on Volturno Street.

28. Take Volturno Street back to Ortona Avenue. Once on Ortona Avenue follow road until Dieppe Street.
29. Turn right onto Dieppe Street and follow to Moreuil Wood Boulevard.
30. At Moreuil Wood Boulevard turn around back onto Dieppe Street.
31. Follow Dieppe Street back to Ortona Avenue. Turn right onto Ortona Avenue and follow all the way to Festubert Boulevard.
32. Turn left onto Festubert Boulevard and then take first left onto Arras Road.
33. Follow Arras Road South back to Ortona Avenue.
34. Ortona Avenue to Dieppe Street.
35. Once at Dieppe Street, turn right and go West to Ypres Boulevard.
36. Turn around at Ypres Boulevard and take Dieppe Street back to Ortona Avenue.
37. At Ortona Avenue, turn right and bob tail down to Volturno Street.
38. Turn right onto Volturno Street and follow to Ypres Boulevard.
39. At Ypres Boulevard, come back down Volturno Street to Ortona Avenue intersection.
40. Bobtail South on Ortona Avenue down to Nissoria Street.
41. Turn right onto Nissoria Street and follow all the way to Ypres Boulevard.
42. Once at Ypres Boulevard turn around and follow Nissoria Street back to Ortona Avenue.
43. Turn right on Ortona Avenue and follow around to Paccino
44. Turn right onto Paccino and follow to Nissoria
45. At Nissoria turn around, and go back down Pachino Street to Ortona Avenue.
46. At Ortona Avenue turn right and head down to Moro Crescent.
47. Turn right at Moro Crescent and follow to Ypres Boulevard.
48. At Ypres Boulevard turn around and take Moro Crescent back to Ortona Avenue.
49. Turn right onto Ortona Avenue and follow to Ypres Boulevard.
50. Turn right on Ypres Boulevard and follow all the way to Volturno Street.
51. Turn right onto Volturno Street and bob tail down to Liri Avenue.
52. Turn left onto Liri Avenue and follow to Dieppe Street.
53. At Dieppe Street turn left then take your first left to Cassino Avenue.
54. Do Cassino Avenue back to Volturno Street.

55. Bobtail off base all the way to the Catwalk trail.
56. Complete the Catwalk trail.
57. Then head to Bert Street and Boulevard intersection.
58. Head East down Bert Street to Harry Street.
59. Turn right at Harry Street and follow to Algonquin Street/Victoria Street intersection.
60. Turn around at intersection and head back down Algonquin Street until Park Drive.
61. Complete Park Drive horseshoe.
62. Route is complete.

Sidewalk Route #53-19:

1. Leave Public Works Yard and head east down Black Bay Road to Boulevard.
2. Head South on Boulevard sidewalk to Schwanz Road.
3. Continue South on Schwanz Road back to Boulevard.
4. Go South on the Boulevard to Radtke Road. Then head East on Radtke Road to Runge Drive.
5. From Runge Drive bobtail back to Boulevard and continue South all the way down to River Drive.
6. East on River Drive until sidewalk ends.
7. Bobtail back to Boulevard then bobtail to Kramer Avenue.
8. Complete sidewalk behind Pineview School. Bobtail to Laurentian Drive/Schwanz Road intersection.
9. Hop on sidewalk at Laurentian Drive and go North all the way down to the Point (Victoria Street).
10. Bobtail back up Laurentian Drive hill to Dundonald Drive.
11. Head West down Dundonald Drive to Wilbert Street to sidewalk end.
12. Bobtail back to Volunteer Way. Turn right and go South down Volunteer Way to Civic Centre Road.
13. At Civic Centre Road switch to opposite side of Volunteer Way and complete sidewalk back to Dundonald Drive.
14. Turn right on Dundonald Drive and head East to Brock Square.
15. Complete Brock Square horseshoe and then come back out to Dundonald Drive.
16. Continue East on Dundonald Drive all the way to Laurentian Drive.
17. Bobtail from Laurentian Drive back down to Dundonald Drive and head North on Borden Avenue.
18. North on Borden Avenue to Wolfe Avenue.
19. North on Wolfe Avenue all the way to Victoria Street.
20. Head East on Victoria Street down to East Street.
21. Once on East Street go South down to Abbie Lane.
22. Bobtail down to Bayshore Drive and do sidewalk to dead end of street.
23. Then bobtail back to East Street and head North to Island View Drive.

24. Head East on Island View Drive until dead end and then head back West to Albert Street.
25. Once on Albert Street, head South back to Victoria Street.
26. Bobtail down Victoria Street to Armstrong Road.
27. Go around the horseshoe and back to Victoria Street.
28. Head West up Victoria Street until you get to the entrance of the Catwalk trail.
29. Complete two passes of the entire trail.
30. Route is complete.

Sidewalk Route #55-20:

1. Leave yard and head to Doran Road and Derek Drive intersection.
2. Start sidewalk on Doran Road and head North all the way to Murphy Road.
3. Once at Murphy Road bobtail down to Hemlock Street and start working back on the Murphy Road sidewalk heading East.
4. Take Murphy Road sidewalk East to the lights at Petawawa Boulevard.
5. Once at Boulevard bobtail back up to Murphy Road at Herman Street.
6. Hop on Herman Street sidewalk and go North all the way up to water tower, (turns into Woodland Crescent).
7. Once complete to Woodland water tower, bobtail all the way down to the lights at Doran Road at the Boulevard.
8. Clean around lights then hop on Boulevard sidewalk and head North up to Base.
9. Once on Base, do Festubert Boulevard sidewalk (right side) all the way to Moreuil Wood Boulevard.
10. Do Moreuil Wood Boulevard sidewalk (right side) to dead end then come back down on left side of the road to Festubert Boulevard.
11. Do left side sidewalk of Festubert Boulevard to Reichwald Crescent.
12. Turn on Reichwald Crescent and head East to Cleve Avenue.
13. Once at Cleve Avenue turn right and head South down Cleve Avenue until Paardeberg Boulevard.
14. Bobtail from Paardeberg Boulevard back to Reichwald Crescent and continue on Reichwald Crescent until you get to Hochwald Street.
15. Once at Hochwald Street intersection turn right and head South down Hochwald Street to Paardeberg Boulevard.
16. Bobtail from Paardeberg Boulevard back to Reichwald Crescent and follow Reichwald Crescent all the way to Falaise Street.
17. Once at Falaise Street turn right and head East to Riccione Avenue.
18. Once at Riccione Avenue turn right and head South to Volturno Street.
19. At Volturno Street turn right and head West down Normandy Avenue until you reach Arnhem Street.
20. Turn right on Arnhem Street and follow back to Riccione Avenue.
21. Once at Riccione Avenue turn around and go back down Arnhem Street.

22. Turn right onto Normandy Avenue and go West to Hochwald Street.
23. Once at Hochwald Street turn around and head East back down Normandy Avenue all the way to Volturno Street/Ypres Boulevard intersection.
24. Once at intersection turn around and head West back to Riccione Avenue.
25. At Riccione Avenue turn right and go North to Dieppe Street.
26. At Dieppe Street turn right and head East to Ypres Boulevard.
27. At Ypres Boulevard turn around and head West back down Dieppe Street to Festubert Boulevard.
28. At Festubert Boulevard turn around and head East back down Dieppe Street until Riccione Avenue.
29. Once at Riccione Avenue turn right and head South to Falaise Street.
30. At Falaise Street turn right and head West to Festubert Boulevard.
31. Once at Festubert Boulevard, turn around and do other side of Falaise Street to Ypres Boulevard.
32. When you get to Ypres Boulevard, turn left and bobtail North up to Caen Street.
33. At Caen Street, turn left and go West to Goch Crescent.
34. At Goch Crescent, turn right and do both sides of the loop.
35. Once finished Goch Crescent, turn back onto Caen Street and head West to Festubert Boulevard.
36. At Festubert Boulevard, turn around and head East back down Caen Street to Ypres Boulevard.
37. Bobtail from Ypres Boulevard all the way down to Antwerp Street and Paardeberg Boulevard intersection.
38. Turn onto Antwerp Street and head North to Cleve Avenue.
39. Turn right onto Cleve Avenue and go East to Paardeberg Boulevard.
40. Once at Paardeberg Boulevard turn around and head West back down Cleve Avenue until Dunkirk Avenue.
41. At Dunkirk Avenue, turn right and head East to Carpiquet Road.
42. At Carpiquet Road, turn right and do the cul-de-sac.
43. Once out of cul-de-sac, continue on Dunkirk Avenue to Paardeberg Boulevard.
44. Head off the base.

At the completion of the Sidewalk Routes, all operators work to complete these subdivisions:

1. Radtke Estates Subdivision

- Start at Murphy Road and Marquis Drive intersection.
- Go South down Marquis Drive until Noble Crescent.
- Go East on Noble Crescent around the entire horseshoe.
- Bobtail back down Marquis Drive and turn East onto Nile Street.
- Once Nile Street is done, this Subdivision is complete.

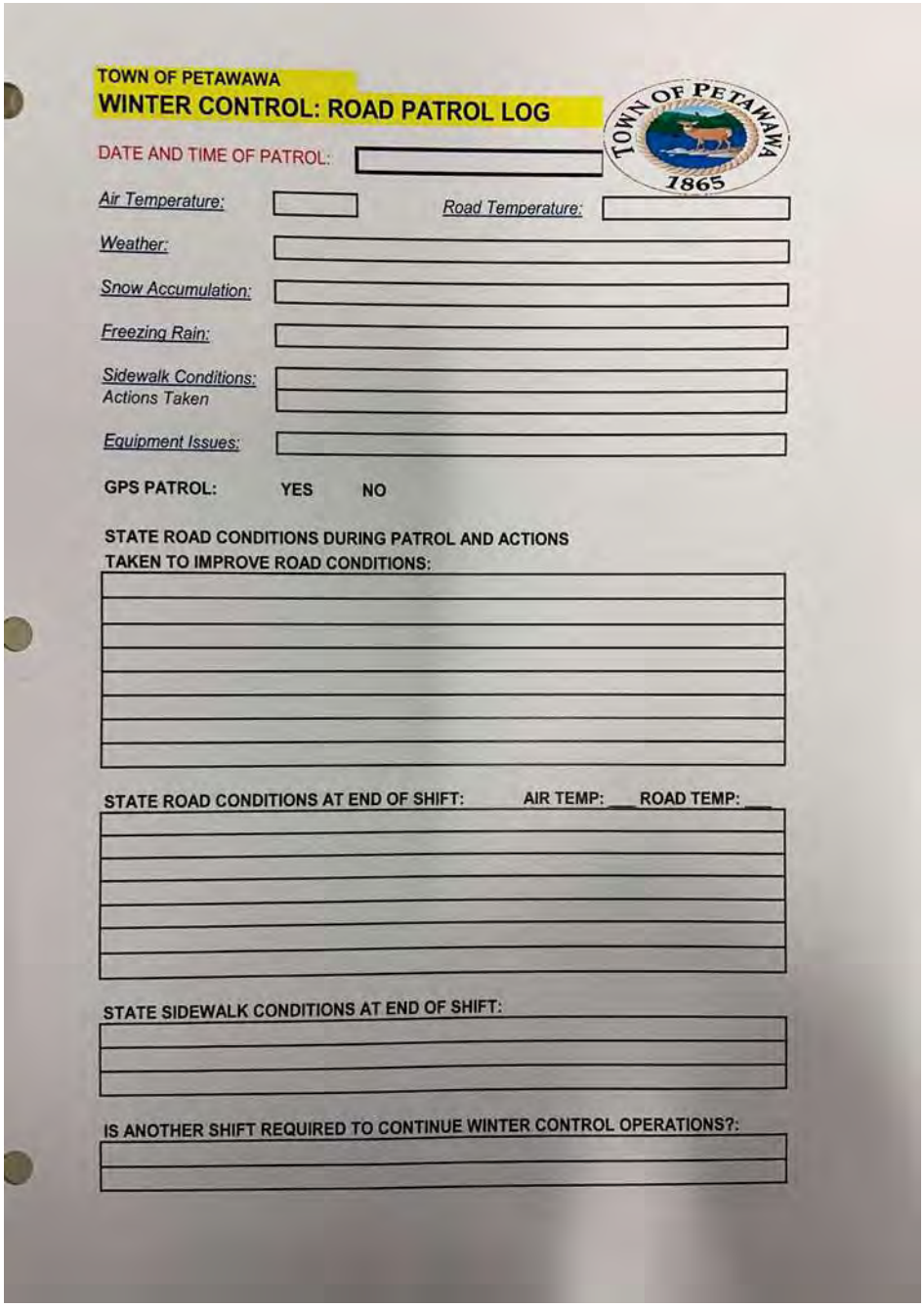
2. Laurentian Highlands Subdivision

- Start at Butler Boulevard/Murphy Road intersection.
- Head South down Butler Boulevard until Gardner Crescent.
- Go North on Gardner Crescent around to McNamara Street.
- Turn and go South down McNamara Street. Once street is done, bobtail back to Gardner Crescent and finish out to Butler Boulevard.
- Hop back on Butler and head South to Bedard Boulevard.
- Once on Bedard Boulevard, go South down near dead end.
- Bobtail back to Bedard Boulevard/Butler Boulevard intersection and head North on sidewalk towards Murphy Road.
- At Murphy Road, turn around and bobtail back to Nick Street.
- Turn East onto Nick Street off of Bedard Boulevard.
- After Nick Street, subdivision is complete.

3. Town Centre/Winston

- Complete both sides of Canadian Forces Drive.
- Both sides of Town Centre Boulevard.
- Right side of Winston Avenue, heading back towards Public Works Yard.
- One side of William Thomas Drive.
- Complete. Return to Public Works Yard.

Appendix “C”
Road Patrol Log Form



TOWN OF PETAWAWA

WINTER CONTROL: ROAD PATROL LOG

DATE AND TIME OF PATROL:

Air Temperature: *Road Temperature:*

Weather:

Snow Accumulation:

Freezing Rain:

Sidewalk Conditions:
Actions Taken

Equipment Issues:

GPS PATROL: **YES** **NO**

STATE ROAD CONDITIONS DURING PATROL AND ACTIONS TAKEN TO IMPROVE ROAD CONDITIONS:

STATE ROAD CONDITIONS AT END OF SHIFT: **AIR TEMP:** **ROAD TEMP:**

STATE SIDEWALK CONDITIONS AT END OF SHIFT:

IS ANOTHER SHIFT REQUIRED TO CONTINUE WINTER CONTROL OPERATIONS?:

Appendix "D"
Snow Removal By-law 683/11

CORPORATION OF THE TOWN OF PETAWAWA

BY-LAW 683/11

BEING A BY-LAW TO REGULATE THE CLEARING AND REMOVAL OF SNOW AND ICE WITHIN THE MUNCIPAL BOUNDARIES OF THE TOWN OF PETAWAWA

WHEREAS Section 9 of the Municipal Act, 2001, S.O. 2001, c.25, states that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising the authority under this or any other act;

AND WHEREAS Section 11 of the Municipal Act, 2001, S.O. 2001, c. 25 as amended provides that a municipality may pass by-laws respecting the health, safety and well being of persons;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF PETAWAWA ENACTS AS FOLLOWS:

This by-law shall be known and may be cited as the "Snow Removal By-law". In the text of the by-law, it is referred to as "this by-law".

SHORT TITLE
SNOW REMOVAL BY-LAW

1. DEFINITIONS:

1.1 "Person" shall mean any individual, owner or operator of a vehicle, corporation, partnership, company, association or party and their heirs, executors, administrators or other legal representative of such person to whom the context can apply according to laws; shall include any group of persons comprising a society or other organization and shall include the plural whereto the context requires;

1.2 "Boulevard" shall mean the area of a highway between the edge of the pavement, curb or the roadway and the boundary of land adjacent to the highway, but excluding a sidewalk;

2. GENERAL PROHIBITIONS:

2.1 No person shall place, or cause to be placed, ice or snow from private property to from a boulevard, onto a sidewalk or traveled portion of a highway;

2.2 No person shall deposit, or cause to be deposited, ice or snow on a boulevard that is not directly adjacent to their property, including but not limited to snow pushed or deposited across a roadway or highway;

2.3 No person shall place, or cause to be placed, ice or snow from private property or from a boulevard, onto the private property of another person;

2.4 No person shall place, or cause to be placed, ice or snow from private property or from a boulevard, in such a manner as to obstruct or hinder the access to any fire hydrant or emergency water stand within the Municipality;

2.5 No person shall pile, redistribute or otherwise cause the accumulation of snow on a sidewalk or traveled portion of a highway, within a the municipality, in such a manner as to obstruct traffic, the view of traffic, or obstruct in any way, the movement of snow clearing equipment under the jurisdiction of the Public Works Department.

2.6 No person, shall move, place or operate any equipment, vehicle or material on any part of a road or highway such that damage to the road surface, curbs, sidewalks or municipal services results from their actions.

3. EXEMPTIONS:

3.1 The provisions of this by-law shall not apply to municipal snow clearing operations, the County of Renfrew snow clearing operations, or to the Ontario Ministry of Transportation.

4. REPAIR AND RECOVERY:

4.1 Every person shall ensure that any snow or ice that is moved or deposited in contravention of Para 2 is removed forthwith. Any snow or ice found to be deposited in contravention of Para 2 may be cleared, treated or removed at the direction of the Public Works Superintendent without notice to and at the expense of the owner of the abutting land, and such costs may be recovered by action or by adding the costs to the tax roll and collecting them in the same manner as municipal taxes.

5. PENALTY:

5.1 Any person who contravenes any of the provisions of this by-law is guilty of an offence and upon conviction is liable to a fine as provided for in the Provincial Offences Act, R.S.O., 1990 as amended.

6. SEPERATION:

6.1 If any Court of competent jurisdiction finds that any of the provisions of this By-law is ultra vires of the jurisdiction of the Council to pass or is invalid for any reason, such provision shall be deemed to be severable and shall not invalidate any of the other provisions of this By-law;

7. EFFECTIVE DATE:

7.1 This By-law shall come into force on and take effect upon the date of the final passing thereof.

By-law read a first and second time this 4th day of April, 2011.

By-law read a third time and passed this 4th day of April, 2011.

Mayor

Clerk

Appendix "E"
Winter Maintenance Policy By-law 1150/17

CORPORATION OF THE TOWN OF PETAWAWA

BY-LAW 1150/17

BEING A BY-LAW TO ADOPT A WINTER MAINTENANCE POLICY FOR THE TOWN OF PETAWAWA

WHEREAS Section 44 (1) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality that has jurisdiction over a highway or bridge shall keep it in a state of repair that is reasonable in the circumstances, including the character and location of the highway or bridge;

AND WHEREAS Section 44 (4) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that the Minister of Transportation may make regulations establishing minimum standards of repair for highways and bridges or any class of them;

AND WHEREAS *Ontario Regulation 239/02*, as amended, made under the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides for *Minimum Maintenance Standards for Municipal Highways*;

AND WHEREAS Council wishes to adopt a *Winter Maintenance Policy*;

NOW THEREFORE BE IT ENACTED BY THE COUNCIL OF THE CORPORATION OF THE TOWN OF PETAWAWA AS FOLLOWS:

1. That Council adopts *Ontario Regulation 239/02*, as amended, titled *Minimum Maintenance Standards for Municipal Highways*, as the *Winter Maintenance Policy* for the Town of Petawawa, attached hereto as Schedule "A" and forming part of this by-law.

2. This by-law shall come into force and take effect following third reading.

By-law read a first and second time this 2nd day of October, 2017.

By-law read a third time and passed this 2nd day of October, 2017.

Mayor

Deputy Clerk

Ontario

Municipal Act, 2001
Loi de 2001 sur les municipalités

ONTARIO REGULATION 239/02

MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS

Consolidation Period: From May 3, 2018 to the e-Laws currency date.

Last amendment: 366/18.

Legislative History: [+]

This Regulation is made in English only.

Definitions
1. (1) In this Regulation,

"bicycle facility" means the on-road and in-boulevard cycling facilities listed in Book 18 of the Ontario Traffic Manual;

"bicycle lane" means,

(a) a portion of a roadway that has been designated by pavement markings or signage for the preferential or exclusive use of cyclists, or

(b) a portion of a roadway that has been designated for the exclusive use of cyclists by signage and a physical or marked buffer;

"cm" means centimetres;

"day" means a 24-hour period;

"encroachment" means anything that is placed, installed, constructed or planted within the highway that was not placed, installed, constructed or planted by the municipality;

"ice" means all kinds of ice, however formed;

"motor vehicle" has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*, except that it does not include a motor assisted bicycle;

"non-paved surface" means a surface that is not a paved surface;

"Ontario Traffic Manual" means the Ontario Traffic Manual published by the Ministry of Transportation, as amended from time to time;

"paved surface" means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion;

"pothole" means a hole in the surface of a roadway caused by any means, including wear or subsidence of the road surface or subsurface;

"roadway" has the same meaning as in subsection 1 (1) of the *Highway Traffic Act*;

"shoulder" means the portion of a highway that provides lateral support to the roadway and that may accommodate stopped motor vehicles and emergency use;

"sidewalk" means the part of the highway specifically set aside or commonly understood to be for pedestrian use, typically consisting of a paved surface but does not include crosswalks, medians, boulevards, shoulders or any part of the sidewalk where cleared snow has been deposited;

"significant weather event" means an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality;

"snow accumulation" means the natural accumulation of any of the following that, alone or together, covers more than half a lane width of a roadway:

1. Newly-fallen snow.

2. Wind-blown snow.

3. Slush;

"substantial probability" means a significant likelihood considerably in excess of 51 per cent;

"surface" means the top of a sidewalk, roadway or shoulder;

"utility" includes any air, gas, water, electricity, cable, fiber-optic, telecommunication or traffic control system or subsystem, fire hydrants, sanitary sewers, storm sewers, property bars and survey monuments;

"utility appurtenance" includes maintenance holes and hole covers, water shut-off covers and boxes, valves, fittings, vaults, braces, pipes, pedestals, and any other structures or items that form part of or are an accessory part of any utility;

"weather" means air temperature, wind and precipitation;

"weather hazard" means the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program. O. Reg. 239/02, s. 1 (1); O. Reg. 23/10, s. 1 (1); O. Reg. 47/13, s. 1; O. Reg. 366/18, s. 1 (1, 2).

(2) For the purposes of this Regulation, every highway or part of a highway under the jurisdiction of a municipality in Ontario is classified in the Table to this section as a Class 1, Class 2, Class 3, Class 4, Class 5 or Class 6 highway, based on the speed limit applicable to it and the average daily traffic on it. O. Reg. 239/02, s. 1 (2); O. Reg. 366/18, s. 1 (3).

(3) For the purposes of subsection (2) and the Table to this section, the average daily traffic on a highway or part of a highway under municipal jurisdiction shall be determined,

(a) by counting and averaging the daily two-way traffic on the highway or part of the highway; or

(b) by estimating the average daily two-way traffic on the highway or part of the highway. O. Reg. 239/02, s. 1 (3); O. Reg. 23/10, s. 1 (2); O. Reg. 366/18, s. 1 (3).

(4) For the purposes of this Regulation, unless otherwise indicated in a provision of this Regulation, a municipality is deemed to be aware of a fact if, in the absence of actual knowledge of the fact, circumstances are such that the municipality ought reasonably to be aware of the fact. O. Reg. 366/18, s. 1 (4).

TABLE
CLASSIFICATION OF HIGHWAYS

Column 1 Average Daily Traffic (number of motor vehicles)	Column 2 91 - 100 km/h speed limit	Column 3 81 - 90 km/h speed limit	Column 4 71 - 80 km/h speed limit	Column 5 61 - 70 km/h speed limit	Column 6 51 - 60 km/h speed limit	Column 7 41 - 50 km/h speed limit	Column 8 1 - 40 km/h speed limit
53,000 or more	1	1	1	1	1	1	1
23,000 - 52,999	1	1	1	2	2	2	2
15,000 - 22,999	1	1	2	2	2	3	3

12,000 - 14,999	1	1	2	2	2	3	3
10,000 - 11,999	1	1	2	2	3	3	3
8,000 - 9,999	1	1	2	3	3	3	3
6,000 - 7,999	1	2	2	3	3	4	4
5,000 - 5,999	1	2	2	3	3	4	4
4,000 - 4,999	1	2	3	3	3	4	4
3,000 - 3,999	1	2	3	3	3	4	4
2,000 - 2,999	1	2	3	3	4	5	5
1,000 - 1,999	1	3	3	3	4	5	5
500 - 999	1	3	4	4	4	5	5
200 - 499	1	3	4	4	5	5	6
50 - 199	1	3	4	5	5	6	6
0 - 49	1	3	6	6	6	6	6

O. Reg. 366/18, s. 1 (5)

Application

2. (1) This Regulation sets out the minimum standards of repair for highways under municipal jurisdiction for the purpose of clause 44 (3) (c) of the Act. O. Reg. 288/03, s. 1.

(2) Revoked: O. Reg. 23/10, s. 2.

(3) This Regulation does not apply to Class 6 highways. O. Reg. 239/02, s. 2 (3).

Purpose

2.1 The purpose of this Regulation is to clarify the scope of the statutory defence available to a municipality under clause 44 (3) (c) of the Act by establishing maintenance standards which are non-prescriptive as to the methods or materials to be used in complying with the standards but instead describe a desired outcome. O. Reg. 366/18, s. 2.

Maintenance Standards

Patrolling

3. (1) The standard for the frequency of patrolling of highways to check for conditions described in this Regulation is set out in the Table to this section. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (2).

(2) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the standard for patrolling highways is, in addition to that set out in subsection (1), to patrol highways that the municipality selects as representative of its highways, at intervals deemed necessary by the municipality, to check for such conditions. O. Reg. 47/13, s. 2; O. Reg. 366/18, s. 3 (2).

(3) Patrolling a highway consists of observing the highway, either by driving on or by electronically monitoring the highway, and may be performed by persons responsible for patrolling highways or by persons responsible for or performing highway maintenance activities. O. Reg. 23/10, s. 3 (1).

(4) This section does not apply in respect of the conditions described in section 10, subsections 11 (0.1) and 12 (1) and section 16.1, 16.2, 16.3 or 16.4. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (3).

TABLE
PATROLLING FREQUENCY

Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	once every 7 days
4	once every 14 days
5	once every 30 days

O. Reg. 239/02, s. 3, Table; O. Reg. 23/10, s. 3 (2).

Weather monitoring

3.1 (1) 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. O. Reg. 47/13, s. 3; O. Reg. 366/18, s. 4.

(2) From May 1 to September 30, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 47/13, s. 3; O. Reg. 366/18, s. 4.

Snow accumulation, roadways

4. (1) Subject to section 4.1, the standard for addressing snow accumulation on roadways is,

(a) after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and

(b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,

(i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or

(ii) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five metres. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (1).

(2) If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the Table to this section, the roadway is deemed to be in a state of repair with respect to snow accumulation. O. Reg. 47/13, s. 4.

(3) For the purposes of this section, the depth of snow accumulation on a roadway and, if applicable, lane width under clause (1) (b), may be determined in accordance with subsection (4) by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

1. Patrolling highways.
2. Performing highway maintenance activities.
3. Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (2).

(4) The depth of snow accumulation on a roadway and lane width may be determined by,

(a) performing an actual measurement;

(b) monitoring the weather; or

(c) performing a visual estimate. O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (3).

(5) For the purposes of this section, addressing snow accumulation on a roadway includes,

(a) plowing the roadway;

(b) salting the roadway;

(c) applying abrasive materials to the roadway;

(d) applying other chemical or organic agents to the roadway;

(e) any combination of the methods described in clauses (a) to (d). O. Reg. 366/18, s. 5 (4).

(6) This section does not apply to that portion of the roadway,

(a) designated for parking;

(b) consisting of a bicycle lane or other bicycle facility; or

(d) used by a municipality for snow storage. O. Reg. 366/18, s. 5 (4).

TABLE
SNOW ACCUMULATION - ROADWAYS

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

O. Reg. 47/13, s. 4; O. Reg. 366/18, s. 5 (5).

Snow accumulation on roadways, significant weather event

4.1 (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on roadways until the declaration of the end of the significant weather event is,

(a) to monitor the weather in accordance with section 3.1; and

(b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on roadways, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 7.

(2) If the municipality complies with subsection (1), all roadways within the municipality are deemed to be in a state of repair with respect to snow accumulation until the applicable time in the Table to section 4 expires following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 7.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

(a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and

(b) address snow accumulation on roadways in accordance with section 4. O. Reg. 366/18, s. 7.

Snow accumulation, bicycle lanes

4.2 (1) Subject to section 4.3, the standard for addressing snow accumulation on bicycle lanes is,

(a) after becoming aware of the fact that the snow accumulation on a bicycle lane is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and

(b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table to this section to provide a minimum bicycle lane width of the lesser of 1 metre or the actual bicycle lane width. O. Reg. 366/18, s. 7.

(2) If the depth of snow accumulation on a bicycle lane is less than or equal to the depth set out in the Table to this section, the bicycle lane is deemed to be in a state of repair in respect of snow accumulation. O. Reg. 366/18, s. 7.

(3) For the purposes of this section, the depth of snow accumulation on a bicycle lane and, if applicable, lane width under clause (1) (b), may be determined in the same manner as set out in subsection 4 (4) and by the persons mentioned in subsection 4 (3), with necessary modifications. O. Reg. 366/18, s. 7.

(4) For the purposes of this section, addressing snow accumulation on a bicycle lane includes,

(a) plowing the bicycle lane;

(b) salting the bicycle lane;

(c) applying abrasive materials to the bicycle lane;

(d) applying other chemical or organic agents to the bicycle lane;

(e) sweeping the bicycle lane; or

(f) any combination of the methods described in clauses (a) to (e). O. Reg. 366/18, s. 7.

TABLE
SNOW ACCUMULATION – BICYCLE LANES

Column 1 Class of Highway or Adjacent Highway	Column 2 Depth	Column 3 Time
1	2.5 cm	8 hours
2	5 cm	12 hours
3	8 cm	24 hours
4	8 cm	24 hours
5	10 cm	24 hours

O. Reg. 366/18, s. 7.

Snow accumulation on bicycle lanes, significant weather event

4.3 (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on bicycle lanes until the declaration of the end of the significant weather event is,

(a) to monitor the weather in accordance with section 3.1; and

(b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on bicycle lanes, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 7.

(2) If the municipality complies with subsection (1), all bicycle lanes within the municipality are deemed to be in a state of repair with respect to snow accumulation until the applicable time in the Table to section 4.2 expires following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 7.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

(a) declare the end of the significant weather event when the municipality determines it is appropriate to do so, and

(b) address snow accumulation on bicycle lanes in accordance with section 4.2. O. Reg. 366/18, s. 7.

Ice formation on roadways and icy roadways

5. (1) The 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:

1. Monitor the weather in accordance with section 3.1.
2. Patrol in accordance with section 3.
3. If the municipality determines, as a result of its activities under paragraph 1 or 2, that there is a substantial probability of ice forming on a roadway, treat the roadway, if practicable, to prevent ice formation within the time set out in Table 1 to this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 366/18, s. 8.

(2) If the municipality meets the standard set out in subsection (1) and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the applicable time set out in Table 2 to this section expires after the municipality becomes aware of the fact that the roadway is icy. O. Reg. 366/18, s. 8.

(3) Subject to section 5.1, the standard for treating icy roadways is to treat the icy roadway within the time set out in Table 2 to this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in Table 2 to this section expires after the municipality becomes aware of the fact that a roadway is icy. O. Reg. 366/18, s. 8.

(4) For the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand. O. Reg. 366/18, s. 8.

(5) For greater certainty, this section applies in respect of ice formation on bicycle lanes on a roadway, but does not apply to other types of bicycle facilities. O. Reg. 366/18, s. 8.

TABLE 1
ICE FORMATION PREVENTION

Class of Highway	Time
1	6 hours
2	8 hours
3	16 hours
4	24 hours
5	24 hours

O. Reg. 366/18, s. 8.

TABLE 2
TREATMENT OF ICY ROADWAYS

Class of Highway	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours

O. Reg. 366/18, s. 8

Icy roadways, significant weather event

5.1 (1) If a municipality declares a significant weather event relating to ice, the standard for treating icy roadways until the declaration of the end of the significant weather event is,

(a) to monitor the weather in accordance with section 3.1; and

(b) if deemed practicable by the municipality, to deploy resources to treat icy roadways, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 8.

(2) If the municipality complies with subsection (1), all roadways within the municipality are deemed to be in a state of repair with respect to any ice which forms or may be present until the applicable time in Table 2 to section 5 expires after the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 8.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

(a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and

(b) treat icy roadways in accordance with section 5. O. Reg. 366/18, s. 8.

Potholes

6. (1) If a pothole exceeds both the surface area and depth set out in Table 1, 2 or 3 to this section, as the case may be, the standard is to repair the pothole within the time set out in Table 1, 2 or 3, as appropriate, after becoming aware of the fact. O. Reg. 239/02, s. 6 (1); O. Reg. 366/18, s. 8 (1).

(1.1) For the purposes of this section, the surface area and depth of a pothole may be determined in accordance with subsections (1.2) and (1.3), as applicable, by a municipal employee, agent or contractor whose duties or responsibilities include one or more of the following:

1. Patrolling highways.

2. Performing highway maintenance activities.

3. Supervising staff who perform activities described in paragraph 1 or 2. O. Reg. 366/18, s. 8 (2).

(1.2) The depth and surface area of a pothole may be determined by,

(a) performing an actual measurement; or

(b) performing a visual estimate. O. Reg. 366/18, s. 8 (2).

(1.3) For the purposes of this section, the surface area of a pothole does not include any area that is merely depressed and not yet broken fully through the surface of the roadway. O. Reg. 366/18, s. 8 (2).

(2) A pothole is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in Table 1, 2 or 3, as appropriate. O. Reg. 239/02, s. 6 (2); O. Reg. 47/13, s. 6.

TABLE 1
POTHOLES ON PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
1	600 cm^2	8 cm	4 days

2	800 cm^2	8 cm	4 days
3	1000 cm^2	8 cm	7 days
4	1000 cm^2	8 cm	14 days
5	1000 cm^2	8 cm	30 days

O. Reg. 239/02, s. 6, Table 1

TABLE 2
POTHOLES ON NON-PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
3	1500 cm^2	8 cm	7 days
4	1500 cm^2	10 cm	14 days
5	1500 cm^2	12 cm	30 days

O. Reg. 239/02, s. 6, Table 2

TABLE 3
POTHOLES ON PAVED OR NON-PAVED SURFACE OF SHOULDER

Class of Highway	Surface Area	Depth	Time
1	1500 cm^2	8 cm	7 days
2	1500 cm^2	8 cm	7 days
3	1500 cm^2	8 cm	14 days
4	1500 cm^2	10 cm	30 days
5	1500 cm^2	12 cm	60 days

O. Reg. 239/02, s. 6, Table 3

Shoulder drop-offs

7. (1) If a shoulder drop-off is deeper than 8 cm, for a continuous distance of 20 metres or more, the standard is to repair the shoulder drop-off within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 9 (1).

(2) A shoulder drop-off is deemed to be in a state of repair if its depth is less than 8 cm. O. Reg. 366/18, s. 9 (1).

(3) In this section,

"shoulder drop-off" means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder. O. Reg. 239/02, s. 7 (3).

TABLE
SHOULDER DROP-OFFS

Class of Highway	Time

1	4 days
2	4 days
3	7 days
4	14 days
5	30 days

O. Reg. 366/18, s. 9 (2).

Cracks

8. (1) If a crack on the paved surface of a roadway is greater than 5 cm wide and 5 cm deep for a continuous distance of three metres or more, the standard is to repair the crack within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 10 (1).

(2) A crack is deemed to be in a state of repair if its width or depth is less than or equal to 5 cm. O. Reg. 366/18, s. 10 (1).

TABLE
CRACKS

Column 1 Class of Highway	Column 2 Time
1	30 days
2	30 days
3	60 days
4	180 days
5	180 days

O. Reg. 366/18, s. 10 (2).

Debris

9. (1) If there is debris on a roadway, the standard is to deploy resources, as soon as practicable after becoming aware of the fact, to remove the debris. O. Reg. 239/02, s. 9 (1); O. Reg. 366/18, s. 11.

(2) In this section,

"debris" means any material (except snow, slush or ice) or object on a roadway

(a) that is not an integral part of the roadway or has not been intentionally placed on the roadway by a municipality; and

(b) that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle. O. Reg. 239/02, s. 9 (2); O. Reg. 47/13, s. 9.

Luminaires

10. (0.1) REVOKED: O. Reg. 366/18, s. 12.

(1) The standard for the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 366/18, s. 12.

(2) For conventional illumination, if three or more consecutive luminaires on the same side of a highway are not functioning, the standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 12.

(3) For conventional illumination and high mast illumination, if 30 per cent or more of the luminaires on any kilometre of highway are not functioning, the standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 366/18, s. 12.

(4) Despite subsection (2), for high mast illumination, if all of the luminaires on consecutive poles on the same side of a highway are not functioning, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 366/18, s. 12.

(5) Despite subsections (1), (2) and (3), for conventional illumination and high mast illumination, if more than 50 per cent of the luminaires on any kilometre of a Class 1 highway with a speed limit of 90 kilometres per hour or more are not functioning, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires. O. Reg. 366/18, s. 12.

(6) Luminaires are deemed to be in a state of repair,

(a) for the purpose of subsection (2), if the number of non-functioning consecutive luminaires on the same side of a highway does not exceed two;

(b) for the purpose of subsection (3), if more than 70 per cent of luminaires on any kilometre of highway are functioning;

(c) for the purpose of subsection (4), if one or more of the luminaires on consecutive poles on the same side of a highway are functioning;

(d) for the purpose of subsection (5), if more than 50 per cent of luminaires on any kilometre of highway are functioning. O. Reg. 366/18, s. 12.

(7) In this section,

"conventional illumination" means lighting, other than high mast illumination, where there are one or more luminaires per pole;

"high mast illumination" means lighting where there are three or more luminaires per pole and the height of the pole exceeds 20 metres;

"luminaire" means a complete lighting unit consisting of,

(a) a lamp, and

(b) parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply. O. Reg. 239/02, s. 10 (7).

TABLE
LUMINAIRES

Class of Highway	Time
1	7 days
2	7 days
3	14 days
4	14 days
5	14 days

O. Reg. 239/02, s. 10, Table.

Signs

11. (0.1) The standard for the frequency of inspecting signs of a type listed in subsection (2) to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 7 (1); O. Reg. 47/13, s. 11 (1); O. Reg. 366/18, s. 13.

(0.2) A sign that has been inspected in accordance with subsection (0.1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 11 (2).

(1) If any sign of a type listed in subsection (2) is illegible, improperly oriented, obscured or missing, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair or replace the sign. O. Reg. 239/02, s. 11 (1); O. Reg. 23/10, s. 7 (2); O. Reg. 366/18, s. 13.

(2) This section applies to the following types of signs:

1. Checkerboard.
2. Curve sign with advisory speed tab.
3. Do not enter.
3.1 Load Restricted Bridge.
3.2 Low Bridge.
3.3 Low Bridge Ahead.
4. One Way.
5. School Zone Speed Limit.
6. Stop.
7. Stop Ahead.
8. Stop Ahead, New.
9. Traffic Signal Ahead, New.
10. Two-Way Traffic Ahead.
11. Wrong Way.
12. Yield.
13. Yield Ahead.
14. Yield Ahead, New. O. Reg. 239/02, s. 11 (2); O. Reg. 23/10, s. 7 (3).

Regulatory or warning signs

12. (1) The standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 8; O. Reg. 47/13, s. 12 (1); O. Reg. 366/18, s. 13.

(1.1) A regulatory sign or warning sign that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements. O. Reg. 47/13, s. 12 (2).

(2) If a regulatory sign or warning sign is illegible, improperly oriented, obscured or missing, the standard is to repair or replace the sign within the time set out in the Table to this section after becoming aware of the fact. O. Reg. 23/10, s. 8; O. Reg. 366/18, s. 13.

(3) In this section,

"regulatory sign" and "warning sign" have the same meanings as in the Ontario Traffic Manual, except that they do not include a sign listed in subsection 11 (2) of this Regulation. O. Reg. 23/10, s. 8.

TABLE
REGULATORY AND WARNING SIGNS

Class of Highway	Time
1	7 days
2	14 days
3	21 days
4	30 days
5	30 days

O. Reg. 239/02, s. 12, Table

Traffic control signal systems

13. (1) If a traffic control signal system is defective in any way described in subsection (2), the standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system. O. Reg. 239/02, s. 13 (1); O. Reg. 366/18, s. 13.

(2) This section applies if a traffic control signal system is defective in any of the following ways:

1. One or more displays show conflicting signal indications.
2. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
3. A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
4. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
5. There is a power failure in the traffic control signal system.
6. The traffic control signal system cabinet has been displaced from its proper position.
7. There is a failure of any of the traffic control signal support structures.
8. A signal lamp or a pedestrian control indication is not functioning.
9. Signals are flashing when flashing mode is not a part of the normal signal operation. O. Reg. 239/02, s. 13 (2).

(3) Despite subsection (1) and paragraph 8 of subsection (2), if the posted speed of all approaches to the intersection or location of the non-functioning signal lamp or pedestrian control indication is less than 80 kilometres per hour and the signal that is not functioning is a green or a pedestrian "walk" signal, the standard is to repair or replace the defective component by the end of the next business day. O. Reg. 239/02, s. 13 (3); O. Reg. 366/18, s. 13.

(4) In this section and section 14,

"cycle" means a complete sequence of traffic control indications at a location;

"display" means the illuminated and non-illuminated signals facing the traffic;

"indication" has the same meaning as in the *Highway Traffic Act*.

"phase" means a part of a cycle from the time where one or more traffic directions receive a green indication to the time where one or more different traffic directions receive a green indication;

"power failure" means a reduction in power or a loss in power preventing the traffic control signal system from operating as intended;

"traffic control signal" has the same meaning as in the *Highway Traffic Act*;

"traffic control signal system" has the same meaning as in the *Highway Traffic Act*. O. Reg. 239/02, s. 13 (4).

Traffic control signal system sub-systems

14. (1) The standard is to inspect, test and maintain the following traffic control signal system sub-systems once per calendar year, with each inspection taking place not more than 16 months from the previous inspection:

1. The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures and support cables.
2. The traffic control sub-system, including the traffic control signal cabinet and internal devices such as timer, detection devices and associated hardware, but excluding conflict monitors.
3. The external detection sub-system, consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian push- buttons. O. Reg. 239/02, s. 14 (1); O. Reg. 47/13, s. 13 (1); O. Reg. 366/18, s. 13.

(1.1) A traffic control signal system sub-system that has been inspected, tested and maintained in accordance with subsection (1) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the traffic control signal system sub-system has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (2).

(2) The standard is to inspect, test and maintain conflict monitors every five to seven months and at least twice per calendar year. O. Reg. 239/02, s. 14 (2); O. Reg. 47/13, s. 13 (3); O. Reg. 366/18, s. 13.

(2.1) A conflict monitor that has been inspected, tested and maintained in accordance with subsection (2) is deemed to be in a state of repair until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the conflict monitor has ceased to be in a state of repair. O. Reg. 47/13, s. 13 (4).

(3) In this section,

"conflict monitor" means a device that continually checks for conflicting signal indications and responds to a conflict by emitting a signal. O. Reg. 239/02, s. 14 (3).

Bridge deck spalls

15. (1) If a bridge deck spall exceeds both the surface area and depth set out in the Table to this section, the standard is to repair the bridge deck spall within the time set out in the Table after becoming aware of the fact. O. Reg. 239/02, s. 15 (1); O. Reg. 366/18, s. 13.

(2) A bridge deck spall is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in the Table. O. Reg. 239/02, s. 15 (2); O. Reg. 47/13, s. 14.

(3) In this section,

"bridge deck spall" means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge. O. Reg. 239/02, s. 15 (3).

TABLE
BRIDGE DECK SPALLS

Class of Highway	Surface Area	Depth	Time
1	600 cm^2	8 cm	4 days
2	800 cm^2	8 cm	4 days
3	1,000 cm^2	8 cm	7 days
4	1,000 cm^2	8 cm	7 days
5	1,000 cm^2	8 cm	7 days

O. Reg. 239/02, s. 15, Table

Roadway surface discontinuities

16. (1) If a surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, exceeds the height set out in the Table to this section, the standard is to repair the surface discontinuity within the time set out in the Table after becoming aware of the fact. O. Reg. 23/10, s. 9; O. Reg. 366/18, s. 13.

(1.1) A surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, is deemed to be in a state of repair if its height is less than or equal to the height set out in the Table to this section. O. Reg. 47/13, s. 15.

(2) If a surface discontinuity on a bridge deck exceeds five centimetres, the standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the surface discontinuity on the bridge deck. O. Reg. 23/10, s. 9; O. Reg. 366/18, s. 13.

(2.1) A surface discontinuity on a bridge deck is deemed to be in a state of repair if its height is less than or equal to five centimetres. O. Reg. 47/13, s. 15.

(3) In this section,

"surface discontinuity" means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge. O. Reg. 23/10, s. 9.

TABLE
SURFACE DISCONTINUITIES

Class of Highway	Height	Time
1	5 cm	2 days
2	5 cm	2 days
3	5 cm	7 days
4	5 cm	21 days
5	5 cm	21 days

O. Reg. 239/02, s. 16, Table

Sidewalk surface discontinuities

16.1 (1) The standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 10; O. Reg. 47/13, s. 16 (1); O. Reg. 366/18, s. 13.

(1.1) A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge of the presence of a surface discontinuity in excess of two centimetres. O. Reg. 47/13, s. 16 (2).

(2) If a surface discontinuity on or within a sidewalk exceeds two centimetres, the standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 366/18, s. 14.

(2.1) Revoked: O. Reg. 366/18, s. 14.

(3) A surface discontinuity on or within a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimetres. O. Reg. 366/18, s. 14.

(4) For the purpose of subsection (2), treating a surface discontinuity on or within a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users' attention to the discontinuity or preventing access to the area of discontinuity. O. Reg. 366/18, s. 14.

(5) In this section,

"surface discontinuity" means a vertical discontinuity creating a step formation at any joint or crack in the surface of the sidewalk or any vertical height difference between a utility appurtenance found on or within the sidewalk and the surface of the sidewalk. O. Reg. 366/18, s. 14.

Encroachments, area adjacent to sidewalk

16.2 (1) The standard for the frequency of inspecting an area adjacent to a sidewalk to check for encroachments is once per calendar year, with each inspection taking place not more than 18 months from the previous inspection. O. Reg. 366/18, s. 15.

(2) The area adjacent to a sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair in respect of any encroachment present. O. Reg. 366/18, s. 15.

(3) For greater certainty, the area adjacent to a sidewalk begins at the outer edges of a sidewalk and ends at the lesser of the limit of the highway, the back edge of a curb if there is a curb and a maximum of 45 cm. O. Reg. 366/18, s. 15.

(4) The area adjacent to a sidewalk is deemed to be in a state of repair in respect of any encroachment present unless the encroachment is determined by a municipality to be highly unusual given its character and location or to constitute a significant hazard to pedestrians. O. Reg. 366/18, s. 15.

(5) If a municipality determines that an encroachment is highly unusual given its character and location or constitutes a significant hazard to pedestrians, the standard is to treat the encroachment within 28 days after making such a determination, and the encroachment is deemed in a state of repair for 28 days from the time of the determination by the municipality. O. Reg. 366/18, s. 15.

(6) For the purpose of subsection (4), treating an encroachment means taking reasonable measures to protect users, including making permanent or temporary repairs, alerting users' attention to the encroachment or preventing access to the area of the encroachment. O. Reg. 366/18, s. 15.

Snow accumulation on sidewalks

16.3 (1) Subject to section 16.4, the standard for addressing snow accumulation on a sidewalk after the snow accumulation has ended is,

a) to reduce the snow to a depth less than or equal to 8 centimetres within 48 hours; and

b) to provide a minimum sidewalk width of 1 metre. O. Reg. 366/18, s. 15.

(2) If the depth of snow accumulation on a sidewalk is less than or equal to 8 centimetres, the sidewalk is deemed to be in a state of repair in respect of snow accumulation. O. Reg. 366/18, s. 15.

(3) If the depth of snow accumulation on a sidewalk exceeds 8 centimetres while the snow continues to accumulate, the sidewalk is deemed to be in a state of repair with respect to snow accumulation, until 48 hours after the snow accumulation ends. O. Reg. 366/18, s. 15.

(4) For the purposes of this section, the depth of snow accumulation on a sidewalk may be determined in the same manner as set out in subsection 4 (4) and by the persons mentioned in subsection 4 (3) with necessary modifications. O. Reg. 366/18, s. 15.

(5) For the purposes of this section, 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). O. Reg. 366/18, s. 15.

Snow accumulation on sidewalks, significant weather event

16.4 (1) If a municipality declares a significant weather event relating to snow accumulation, the standard for addressing snow accumulation on sidewalks until the declaration of the end of the significant weather event is,

(a) to monitor the weather in accordance with section 3.1; and

(b) if deemed practicable by the municipality, to deploy resources to address snow accumulation on sidewalks starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 15.

(2) If the municipality complies with subsection (1), all sidewalks within the municipality are deemed to be in a state of repair with respect to any snow present until 48 hours following the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 15.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

(a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and

(b) address snow accumulation on sidewalks in accordance with section 16.3. O. Reg. 366/18, s. 15.

Ice formation on sidewalks and icy sidewalks

16.5 (1) Subject to section 16.6, 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. O. Reg. 366/18, s. 15.

(2) If ice forms on a sidewalk even though the municipality meets the standard set out in subsection (1), 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. O. Reg. 366/18, s. 15.

(3) The standard for treating icy sidewalks after the municipality becomes aware of the fact that a sidewalk is icy is to treat the icy sidewalk within 48 hours, and an icy sidewalk is deemed to be in a state of repair for 48 hours after it has been treated. O. Reg. 366/18, s. 15.

(4) For the purposes of this section, treating a sidewalk means applying materials including salt, sand or any combination of salt and sand to the sidewalk. O. Reg. 366/18, s. 15.

Icy sidewalks, significant weather event

16.6 (1) If a municipality declares a significant weather event relating to ice, the standard for addressing ice formation or ice on sidewalks until the declaration of the end of the significant weather event is,

(a) to monitor the weather in accordance with section 3.1, and

(b) if deemed practicable by the municipality, to deploy resources to treat the sidewalks to prevent ice formation or improve traction, or treat the icy sidewalks, starting from the time that the municipality deems appropriate to do so. O. Reg. 366/18, s. 15.

(2) If the municipality complies with subsection (1), all sidewalks within the municipality are deemed to be in a state of repair with respect to any ice which forms or is present until 48 hours after the declaration of the end of the significant weather event by the municipality. O. Reg. 366/18, s. 15.

(3) Following the end of the weather hazard in respect of which a significant weather event was declared by a municipality under subsection (1), the municipality shall,

(a) declare the end of the significant weather event when the municipality determines it is appropriate to do so; and

(b) address the prevention of ice formation on sidewalks or treat icy sidewalks in accordance with section 16.5. O. Reg. 366/18, s. 15.

Winter sidewalk patrol

16.7 (1) If it is determined by the municipality that the weather monitoring referred to in section 3.1 indicates that there is a substantial probability of snow accumulation on sidewalks in excess of 8 cm, ice formation on sidewalks or icy sidewalks, the standard for patrolling sidewalks is to patrol sidewalks that the municipality selects as representative of its sidewalks at intervals deemed necessary by the municipality. O. Reg. 366/18, s. 15.

(2) Patrolling a sidewalk consists of visually observing the sidewalk, either by driving by the sidewalk on the adjacent roadway or by driving or walking on the sidewalk or by electronically monitoring the sidewalk, and may be performed by persons responsible for patrolling roadways or sidewalks or by persons responsible for or performing roadway or sidewalk maintenance activities. O. Reg. 366/18, s. 15.

Closure of a highway

16.8 (1) When a municipality closes a highway or part of a highway pursuant to its powers under the Act, the highway is deemed to be in a state of repair in respect of all conditions described in this Regulation from the time of the closure until the highway is re-opened by the municipality. O. Reg. 366/18, s. 15.

(2) For the purposes of subsection (1), a highway or part of a highway is closed on the earlier of,

(a) when a municipality passes a by-law to close the highway or part of the highway; and

(b) when a municipality has taken such steps as it determines necessary to temporarily close the highway or part of a highway. O. Reg. 366/18, s. 15.

Declaration of significant weather event

16.9 A municipality declaring the beginning of a significant weather event or declaring the end of a significant weather event under this Regulation shall do so in one or more of the following ways:

1. By posting a notice on the municipality's website.
2. By making an announcement on a social media platform, such as Facebook or Twitter.
3. By sending a press release or similar communication to internet, newspaper, radio or television media.
4. By notification through the municipality's police service.
5. By any other notification method required in a by-law of the municipality. O. Reg. 366/18, s. 15.

REVIEW OF REGULATION

Review

17. (1) The Minister of Transportation shall conduct a review of this Regulation and Ontario Regulation 612/06 (Minimum Maintenance Standards for Highways in the City of Toronto) made under the *City of Toronto Act, 2006* every five years. O. Reg. 613/06, s. 2.

(2) Despite subsection (1), the first review after the completion of the review started before the end of 2007 shall be started five years after the day Ontario Regulation 23/10 is filed. O. Reg. 23/10, s. 11.

18. OMITTED (PROVIDES FOR COMING INTO FORCE OF PROVISIONS OF THIS REGULATION). O. Reg. 239/02, s. 18.

Appendix "F"
Significant Weather Event Information

Significant Weather Event FAQ's

What is a Significant Weather Event?

A significant weather event is an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality.

What is a Weather Hazard?

Weather hazards are determined by *Environment Canada* as meeting the criteria for the issuance of an alert under its *Public Weather Alerting Program*.

Under what authority can a Significant Weather Event be declared?

Ontario Regulation 239/02, *Minimum Maintenance Standards for Municipal Highways*, made under the *Municipal Act, 2001*, as amended, gives municipalities the authority to declare a significant weather event when a weather hazard is approaching or occurring and has the potential to pose a significant danger to users of the highways in which the municipality has authority over.

Why would a municipality declare a Significant Weather Event?

When a municipality declares a significant weather event, the declaration suspends the standard timelines required for municipalities to meet their winter maintenance objectives until the municipality declares the significant weather event has ended. During the course of a declared significant weather event, the standard for addressing winter maintenance is to monitor the weather and to deploy resources to address the issue starting from the time the municipality deems it appropriate to do so. When the municipality has declared the event has ended, the standard timelines for winter maintenance activities will begin.

Under what conditions would a municipality declare a Significant Weather Event?

A municipality may declare a significant weather event when the weather forecast or actual weather condition includes one or more, but is not limited to one or more, of the following conditions:

- *Environment Canada* has issued an alert under its *Public Weather Alerting Program*;
- Significant snow accumulation during a 24 hour period;
- Ice formation that occurs with no warning from the weather forecast;
- High winds leading to large snow drifts;
- Cold temperature when de-icing operations will not be effective.

Does a declaration mean the municipality is reducing its level of service?

No. A declaration of a significant weather event is not notice of a reduced level of service. The declaration is to notify the public that due to the current or forecasted conditions, caution is be observed when travelling on the municipality's roads and sidewalks, and that it may take longer than usual to bring the condition of the roads and sidewalks back to optimal conditions.

Does a declaration mean the municipality is closing roads?

No. A declaration of a significant weather event is not notice of a road closure. The declaration is to notify the public that due to the current or forecasted conditions, caution is be observed when travelling on the municipality's roads and sidewalks, and that it may take longer than usual to bring the condition of the roads and sidewalks back to optimal conditions.

How will I know if the Town of Petawawa has declared a Significant Weather Event?

The Town of Petawawa will notify the public of the declaration of a significant weather event by doing one or more of the following:

- By posting a media release under the "NEWS" section of the Town's website, www.petawawa.ca;
- By making an announcement on the Town's Facebook page and/or Twitter account;
- By issuing a media release to local radio, internet, newspaper, or television media;
- By issuing a media release to local emergency services (police/fire/paramedics).

How will I know if the Town of Petawawa has declared the end of a Significant Weather Event?

The Town of Petawawa will notify the public of the declaration of the end of a significant weather event by doing one or more of the following:

- By posting a media release under the "NEWS" section of the Town's website, www.petawawa.ca;
- By making an announcement on the Town's Facebook page and/or Twitter account;
- By issuing a media release to local radio, internet, newspaper, or television media;
- By issuing a media release to local emergency services (police/fire/paramedics).

Further questions regarding the declaration of a **Significant Weather Event**, may be directed to:

Chris Mantha, Manager of Public Works
613-687-5536 ext. 2301
cmantha@petawawa.ca