

Winter Maintenance Manual



Roads Division

Department of Physical Services

Updated: November 5, 2019

Purpose

The purpose of the Winter Maintenance Manual is to provide safe, reliable, efficient and environmentally responsible winter maintenance service within the Town of Kirkland Lake, in accordance with its approved level of service and accepted standards determined by Council, as identified in this Manual.



Objective

The objective is to define a level of service that is to be maintained, along with procedures to be followed, in order to reduce the hazards resulting from winter snow and ice.

Winter maintenance standards establish levels of service for snow and ice control across the Town, for various classes and priorities of roadways and sidewalks, to ensure the safe and efficient movement of people, goods and services, throughout the community.

The winter maintenance procedures included in this document dictate the actions to be taken in order to maintain the above-noted standards. Understanding that all of the winter control measures cannot be carried out on all roadways and sidewalks at the same time, the procedures must follow the priorities as defined by the priority classifications of the roadways and sidewalks.

Although impossible to eliminate the risk associated with winter storms, it is anticipated that by following the Winter Maintenance Plan, we can minimize the negative impacts of winter storms through a well-managed and consistent approach.

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Policy Statement

The Town of Kirkland Lake will coordinate winter road maintenance activity to comply with the Provincial Minimum Maintenance Standard O. Reg. 239/02 (along with accompanying updates).

It is the intention of the Municipality to provide practical, safe access to connecting highways, residences, businesses and municipal facilities. Measures of salting, sanding, snow plowing and snow removal will be determined, based on the type and severity of weather event. Operations may deviate from policy standards at the discretion of the Municipality, to address circumstances such as significant weather events.

It is the Municipality's policy to commence snow ploughing operations when there is accumulation of snow equal to or greater than 8 cm, and to apply salt and/or sand on slippery road surfaces, when required.

The Roads Foreman, or designate, is responsible for the timely dispatch of Municipal operators; and communication with assigned contractors to confirm dispatch of winter maintenance operators (when applicable).

The outlined policy is intended to serve as the normal operating procedures for winter maintenance. Circumstances which may interfere with the implementation of this policy are as follows:

- Emergencies and safety hazards
- Equipment breakdown
- Snow accumulation in excess of 2.5 cm per hour
- Freezing rain or other ice conditions
- Traffic congestion
- On-street Parking
- Personnel illness

The Town of Kirkland Lake is committed to continuous improvement of all its operations. This plan will be reviewed and updated on an annual basis.

Road Classifications

On November 1, 2002, Ontario Regulation 239/02 came into effect. An amendment was made this past May (O. Reg. 366/18). This Provincial regulation sets out Maintenance Standards for Municipal Highways.

As stipulated under this Regulation, the levels of service for each road vary according to their classification. There are six classes established by the Ministry of Transportation; Class 1 being the highest level of service and Class 6 being the lowest. The standards classify roads based on Average Annual Daily Traffic (AADT) and on the posted or statutory Speed Limit.

Classification of Highways

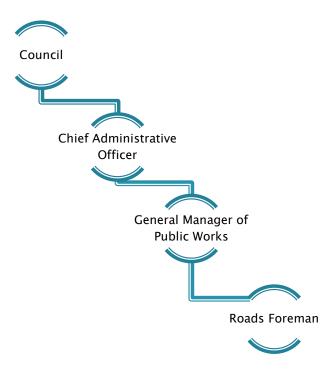
AADT	91-100 km/h	81-90 km/h	71-80 km/h	61-70 km/h	51-60 km/h	41-50 km/h	1-40 km/h
53K +	1	1	1	1	1	1	1
23K - 52,999	1	1	1	2	2	2	2
15K - 22,999	1	1	2	2	2	3	3
12K - 14,999	1	1	2	2	2	3	3
10K - 11,999	1	1	2	2	3	3	3
8K - 9,999	1	1	2	3	3	3	3
6K - 7,999	1	2	2	3	3	4	4
5K - 5,999	1	2	2	3	3	4	4
4K - 4,999	1	2	3	3	3	4	4
3K - 3,999	1	2	3	3	3	4	4
2K - 2,999	1	2	3	3	4	5	5
1K - 1,999	1	3	3	3	4	5	5
500 - 900	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

MTO, O Reg. 366/18

The Town of Kirkland Lake only has Class 3, 4 and 5 roads within its jurisdiction. These are identified in Schedule "A" attached.

Corporate Organization Chart

The Roads Foreman reports directly to the Manager of Infrastructure, who reports to the Chief Administrative Officer, as per the chart below.



It is the Roads Foreman's responsibility to implement the Winter Maintenance Manual, as adopted by Council. The operating procedures required to implement the Plan, are at the discretion of the Roads Foreman. Should the Manager of Infrastructure, the Chief Administrative Officer or Council request something above and beyond, or below the level of standard imposed in the Winter Maintenance Manual, it shall be requested in writing and recorded in Town records.

Maintenance Standards

Patrolling

Patrolling is to be done by the Roads Foreman, or designate.

The standard for the frequency of patrolling of roadways to check conditions is provincially mandated, and set out in the following table:

Class of Highway	Frequency
3	Once in 7 days
4	Once in 14 days
5	Once in 30 days

If weather monitoring indicates that there is a substantial probability of snow accumulation or ice formation, the standard for patrolling roadways is to be completed at the Roads Foreman's discretion.

Weather Monitoring

Weather monitoring is to be done by the Roads Foreman, or designate.

Weather monitoring can be done by either reviewing various reputable weather forecasting websites or by patrolling roads to check conditions, or any combination thereof.

From October 1 to May 30, the provincial standard is to monitor the weather, both current and forecasted to occur in the next 24 hours, three times per calendar day.

Level of Service for Roadways

Snow Accumulation

The minimum standard for addressing snow accumulation is,

- (1) After becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the "Snow Accumulation Table" in this section, to deploy the resources as soon as practicable to address the snow accumulation; and
- (2) 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 "Snow Accumulation Table" within the time set out in the "Snow Accumulation Table".

The depth of snow accumulation on a roadway is determined by the Roads Foreman, or designate.

The depth of snow accumulation on a roadway may be determined by performing an actual measurement, monitoring weather, or performing a visual estimate.

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

- Plowing the roadway;
- Snow removal:
- Salting the roadway;
- Applying abrasive materials to the roadway; or
- Any combination of the methods described above.

Note: This section does not apply to that portion of the roadway designated for parking, sidewalks or used by a municipality for snow storage.

The following table summarizes the level of winter maintenance service that the Town of Kirkland Lake will provide:

Snow Accumulation Table

Class of Highway	Depth	Time
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

There are three beats that are used to effectively plow the snow in Kirkland Lake. They are identified on Schedule "B". These beats are scheduled when there is 8 cm or more of snow.

When anticipating less than 8 cm, the Number. 1 beat for the grader will tackle the class 3 highways and the downtown core. This beat is identified on Schedule "B".

Ice Formation on Roadways

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:

- Monitor the weather;
- Patrol;
- If the municipality determines, as a result of monitoring the weather and patrolling, 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 the table below, starting from the time the municipality determines is the appropriate time to deploy resources for that purpose.

Ice Formation Prevention Table

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

The standard for treating icy roadways is to treat the roadway within the time set out on the table below. For the purpose of this section, treating a roadway means applying material to the roadway, including, but not limited to salt, and a combination of salt and sand.

Treatment of Icy Roadways Table

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

Salting routes are attached as Schedule "C" to this Manual. When necessary, the Roads Foreman will implement the salting of this route. Salting **should not** take place unless it is warmer than -8 degrees Celsius and intends to stay mild for the remainder of the day.

Sanding routes are attached as Schedule "D" to this Manual. Sanding is completed at the Road's Foreman's discretion.

Snow Pull (Lifting and Hauling)

Removal of snow will take place on streets taking into consideration public safety, snow storage capability, emergency access routes, street parking

requirements, vehicle and pedestrian traffic volumes and parking lot capacity. The minimum standard for roadway width is 3.0 metres.

Snow pulls are identified on Schedule "E". Snow removal can occur at any point, at the Roads Foreman's discretion, and when the width of the roadway is compromised.

Snow pulls are to be advertised on the radio and online (website and social media) prior to commencing the work.

Scarifying

There are no set standards as to when scarifying occurs. Scarifying is to be completed on an "as needed" basis, subject to the discretion of the Roads Foreman.

Scarifying is to be advertised on the radio and online (website and social media) prior to commencing the work.

Significant Weather Events

Where appropriate, the Municipality may declare a "significant weather event" related to snow accumulation or icy roadways by way of advertising on the radio and online (website, social media, etc.). The declaration of the end of the significant weather event occurs when the Municipality determines it is appropriate to do so; and once the municipality has addressed the snow accumulation or ice on roadways, in accordance with the tables above.

It is acknowledged that conditions may occur which temporarily prevent achieving the levels of service as detailed in this document. In such cases, attempts will be made to keep roadways as clear as possible by utilizing all maintenance equipment and maximum efficiency.

Winter operations will continue until the prescribed level of service is achieved where conditions permit. Should conditions not permit accomplishment of the prescribed level of service, operations shall continue as required to maintain as good a driving condition as possible.

Procedures

While conducting Winter Maintenance Operations, the Department of Physical Services will follow the Provincial Standards, under the Highway Traffic Act for Health and Safety and Traffic Control.

Roads

The Municipality is divided into beats. The attached maps identify how the beats are organized. The objective, during a storm, is to keep traffic moving in a safe and efficient manner. Therefore, depending on the storm conditions, it may be necessary to plow Class 3 roadways several times before other roadways are plowed.

Winter control procedures are initiated by the Roads Foreman, or designate, as weather and road conditions demand. Monitoring of weather forecasts, patrol reports and other information, as may be available, may allow preparation for winter control operations to be initiated prior to the beginning of an actual event.

During and upon completion of the winter control roadway operations, a daily record is maintained and updated, indicating the roadway winter maintenance activities that were carried out. Daily record templates have been established and are to be kept for a period of seven (7) years. The templates are attached as Schedule "F".

Sidewalks

The Town has sidewalk allocated on various road classifications. Not all of the sidewalks in the Town of Kirkland Lake receive snow control services. The sidewalks identified on Schedule "G" are serviced in a manner similar to street plowing; according to a priority system. High priority sidewalks are along heavily travelled pedestrian routes along main and arterial streets, including school and bus routes, in front of public buildings, including the hospital and churches, and in the business areas.

Once sidewalk beats are plowed/sanded, the Roads Foreman or designate will conduct repetitive monitoring and sanding of the entire sidewalk beats during the period until the next snowfall.

Sidewalks are plowed only after the snow accumulation exceeds 8 cm. The standard is to have all maintained sidewalks completed within 48 hours of the snow accumulation ending. The minimum sidewalk width must be no less than 1 metre.

Sanding must take place on all sidewalks within 48 hours of being made aware of the sidewalk becoming icy, and an icy sidewalk is deemed to be in a state of repair for 48 hours after it has been treated.

No person shall deposit snow or ice from private property on the sidewalk or the roadway of any highway. Any person found guilty of this offence is liable to a fine, as per our Snow By-law 07-024.

Where appropriate, the Municipality may declare a "significant weather event" related to snow accumulation on sidewalks and/or icy sidewalks by way of advertising on the radio and online (website, social media, etc.). The declaration of the end of the significant weather event occurs when the Municipality determines it is appropriate to do so; and once the municipality has addressed the snow accumulation on sidewalks and/or icy sidewalks.

It is acknowledged that conditions may occur which temporarily prevent achieving the levels of service as detailed in this document. In such cases, attempts will be made to keep roadways as clear as possible by utilizing all maintenance equipment and maximum efficiency.

Winter operations will continue until the prescribed level of service is achieved where conditions permit. Should conditions not permit accomplishment of the prescribed level of service, operations shall continue as required to maintain as good a driving service as possible.

Municipal Parking Lots

Municipal parking lots are to be plowed and sanded at the same time as plowing. These are to be completed as part of the normal beats, and not a return call.

Additional sand/salt applications may be required and are at the discretion of the Maintenance Managers and/or Roads Foreman on an "as needed" basis.

The Roads Foreman will be responsible for obtaining/supplying the sand and salt mix and have appropriate storage facilities.

Snow piling shall be done in an orderly fashion in designated areas, when specified, so as to minimize the impact on available parking spaces and to ensure meltwater will not adversely affect the lot, public sidewalks or roadways. The entrances must be left unobstructed and snow shall not be piled in the areas designated for accessible parking use or near walkways.

Snow removal/hauling will be carried out on an "as required" basis.

The locations of all municipal parking lots are identified on Schedule "H" to this Manual.

Special Areas

School Crossing Guard Locations: Snow removal and sanding at school crossings is completed at select crossings. The Roads Division is notified by the Recreation Department if there are extenuating circumstances.

Canada Post Community Mailboxes: Snow removal around Canada Post Community Mailboxes is the responsibility of Canada Post and is not a service provided by the Town of Kirkland Lake.

Variable Weather Conditions

During extraordinary snow and ice events, additional personnel and/or contractors and equipment may be utilized to supplement operations. During periods of extended continuous snowfall or freezing rain, operations may be focused on primary transportation routes and emergency service delivery locations and may be performed on a limited scale.

Snow and ice control operations should be conducted when weather conditions do not endanger the safety of employees or equipment, and operations are effective. Factors that may delay operations include severe cold, significant winds, limited visibility and rapid accumulation of snow and/or ice.

Staff will utilize weather forecasting information to predict and pro-actively respond to winter storm events, as per the Provincial Maintenance Standards.

Winter Preparation

Sand Boxes

Sand boxes are placed in random locations throughout the Town for use on public or private property in late fall. Staff inspects the level of sand in the boxes on a regular basis. They are removed in the spring.

Locations of sand boxes are identified on Schedule "I".

Responsibilities of Residents

Providing information to the public is a vital part of winter maintenance services. Residents need to know how they can help facilitate snow clearing and what to expect in terms of a response to winter storms. Information will be advertised periodically throughout the winter control season advising residents of the Town's winter control activities and requirements. This notification will inform the public of normal winter control activities and, in effect, list what residents should be aware of in order to help the Roads Division efficiently maintain their roadways and sidewalks.

Snowplow Safety

- Be patient and keep a safe distance (30m) behind working snow plows. If you cannot see the mirrors of a snow plow, the operator cannot see you. Snow plows often travel slowly because they are removing snow, spreading sand/salt to roadways.
- Keep in mind that snowplows are wider than the average vehicle with large blades that extend a metre or more ahead and into the neighbouring lane.
- Do not drive beside snow plows as you risk collision. Snow plows sometimes shift sideways when they are plowing packed snow or drifts.
- Move aside. Snow plows often drive along the centerline of a roadway to remove snow. If you approach a snow plow from the opposite direction, shift right if conditions allow you to, to ensure there is enough space for them to pass you safely.
- Beware of reduced visibility. Even at reduced plowing speeds, a small amount of snow forms a cloud in the wake of a snow plow that severely restricts a driver's visibility, making passing extremely dangerous.
- Do not pass between snow plows in tandem. On multi-lane roads snow plows often work in tandem. Passing or weaving between these plows is dangerous.

 Watch for snow plows on sunny days. Snow plows and removal equipment must be out for several hours after a storm clearing shoulders and cutting back snow banks.

Garbage and Recycling Bins

It is important for residents to follow Waste Management staff's directions regarding the placement of garbage and recycling bins, especially during the winter months.

Garbage and recycling bins do pose challenges for winter maintenance and snow removal. Residents are to locate their garbage and recycling bins as close to the road as possible, in their own driveway. Should the property not have a driveway, a cleared path on the boulevard is acceptable. The property owner is responsible for the maintenance of this cleared path.

In order to effectively clear snow, residents should remove garbage and recycling bins from the boulevard/driveway as soon as possible after collection has been completed.

Should there be any questions regarding the placement of garbage and recycling bins, please contact the Waste Management Division at 705-567-9365.

Managing Complaints and Requests for Services

During snow and ice control operations, numerous inquiries, complaints, and requests for service are received by the Department of Physical Services. The Roads Division will take measures to keep clerical staff informed and updated regarding snow and ice removal operations (i.e. schedules and breakdowns)

The Department of Physical Services shall answer questions and concerns from citizens and record pertinent information related to the inquiry in an activity request tracking system. If the caller requires action, the staff member who took the call shall notify appropriate personnel of inquiries, complaints, and requests based on the following:

- Safety issues affecting the public or Town staff shall be forwarded immediately to the Supervisor;
- Non-safety-related issues shall be forwarded to the appropriate personnel in a timely manner;
- Property damage shall be recorded and turned over to the Roads
 Foreman through normal channels.

Activity requests are tracked to ensure each inquiry is dealt with in a effective and timely manner.

All plow beats have been determined based on criteria and availability of resources. Any requests for additional plow beats must be a decision of Council.

Repairing Property Damage

Winter maintenance activities may cause property damage even under the best of circumstances and the exercise of due diligence on the part of the plow operators. The major types of damage are to improvements in the road right-of-way which extends beyond the property line. The intent of this right-of-way is to provide room for snow storage, utilities, sidewalks and other Town uses. The Town is responsible for the repair of any plow damage to the roadway or grass boulevards.

The Town will replace/repair sod damaged by its snowplow during snow removal if reported to the Roads Division by June 1st following the winter season the damage took place. Other damage within the public right-of-way is the responsibility of the property owner, including but not limited to: trees, shrubs, bushes, landscaping materials, decorative rock, retaining walls, lawn/landscaping irrigation systems. The Town does not repair/replace sod damaged due to the application of sand or salt, or other de-icing chemicals.

By-law Enforcement

The Town's By-law Enforcement branch will be patrolling the streets and enforcing By-laws, including the Winter Parking By-law and the Snow By-law. These are both attached as Schedule "K" and Schedule "L".

Parking By-law: Residents shall refrain from parking on boulevards and sidewalks, as presented in the Town's Parking By-law. Parking on boulevards and sidewalks at any point of the day inhibits staff from being able to implement this Winter Maintenance Plan.

Winter Parking By-law: On-street winter parking restrictions come into play on November 1 to April 15 of each calendar year. This is to expedite and effectively maintain the streets. If vehicles are parked on street when snow removal is being completed, vehicles can be ticketed and/or towed at the owner's expense. Please govern yourself accordingly.

Snow By-law: Each resident is responsible for dealing with their own snow. Snow from a resident's property cannot be moved to someone else's property or onto municipal property. When By-law Enforcement first notices non-compliance, they will provide a written warning. On second notice of non-compliance, they will be charged under the By-law. Any further acts of non-compliance may be subject to towing.

Anyone who contravenes these By-laws is subject to a fine under the Provincial Offences Act.

Frequently Asked Questions

My residential street still has not been plowed, why is it taking so long?

During a snow fall, the Town plows its roadways in accordance with priorities and Provincial Standards. The first priority during a snowfall is to ensure all main arterial and collector roads are clear. This means that plows may not be able to immediately clear local residential and less travelled roads. Residential and less-travelled roads are generally cleared after 8-10 cm of snow accumulation and completed within 24 hours of the end of a snowfall.

Why does the snow plow fill in the end of my driveway?

Snow plows clear streets from the center of the street to the curb – sometimes leaving snow across private driveways. Unfortunately this cannot be efficiently prevented and it must be understood that the boulevard area is designed for snow storage from the traveled portion of the roadway.

Why does the snow plow come down my street twice during the same snowfall?

When snow continues to fall over a long period, snow plows may have the clear streets more than once. They do a first pass to open up the street and make it passable to traffic, and then go back to clean-up and bring the street to a satisfactory condition.

Why does the Town plow in the middle of the night?

Depending on how much snow falls, the Town may have to plow overnight. Not only is this a safe and more efficient manner, as there is little road traffic and no cars parked on the streets, but it also ensures that the roads are ready in the morning for our residents.

Why are the snow plows and sanders out on the street when it's not snowing?

Residents may see Town crews out when it's not snowing. We proactively treat the roads during expected weather conditions. In other cases, plows are sent out to address areas of concern that may have hills/curves. With safety in mind, it is the best interest of the Town and the general public to have these areas treated to prevent ice formation.

Is there a number I can call if my street hasn't been plowed?

Residents who live on a local street or on a rural road are asked to wait 24 hours before calling to inquire about plowing operations. Depending on the severity of the storm and the location, plows may not reach your street for 24 hours. Please be patient.

Will anything be done about the high snow banks along my street?

The Town will work to cut down the snow banks along major arterial and collector roadways. This will occur when the banks cause sight line issues and snow storage becomes a concern.

How can I help?

Residents can assist the Town in the winter by doing a few things to assist in snow clearing operations:

- Avoid parking on streets to allow plows to do their work.
- When shoveling or plowing snow from your driveway, don't throw it on the street or into public sidewalks. Pile snow on your own property.
- Place garbage containers and blue boxes on a cleared area at the end of your driveway or near the curb. Do not place containers on top of snowbanks, on sidewalks or on roads.
- Be mindful of your neighbours. Do not pile snow so the Town will push it away from your entrance and fill your neighbour's entrance.

Schedules

Schedule "A" - Classification of Roads

Schedule "B" - Snow Plowing & Grader Beats

Schedule "C" - Salting Routes

Schedule "D" - Sanding Routes

Schedule "E" - Snow Pulls

Schedule "F" - Daily Recordings Templates

Schedule "G" - Maintained Sidewalks

Schedule "H" - Location of Municipal Parking Lots

Schedule "I" - Location of Sand Boxes

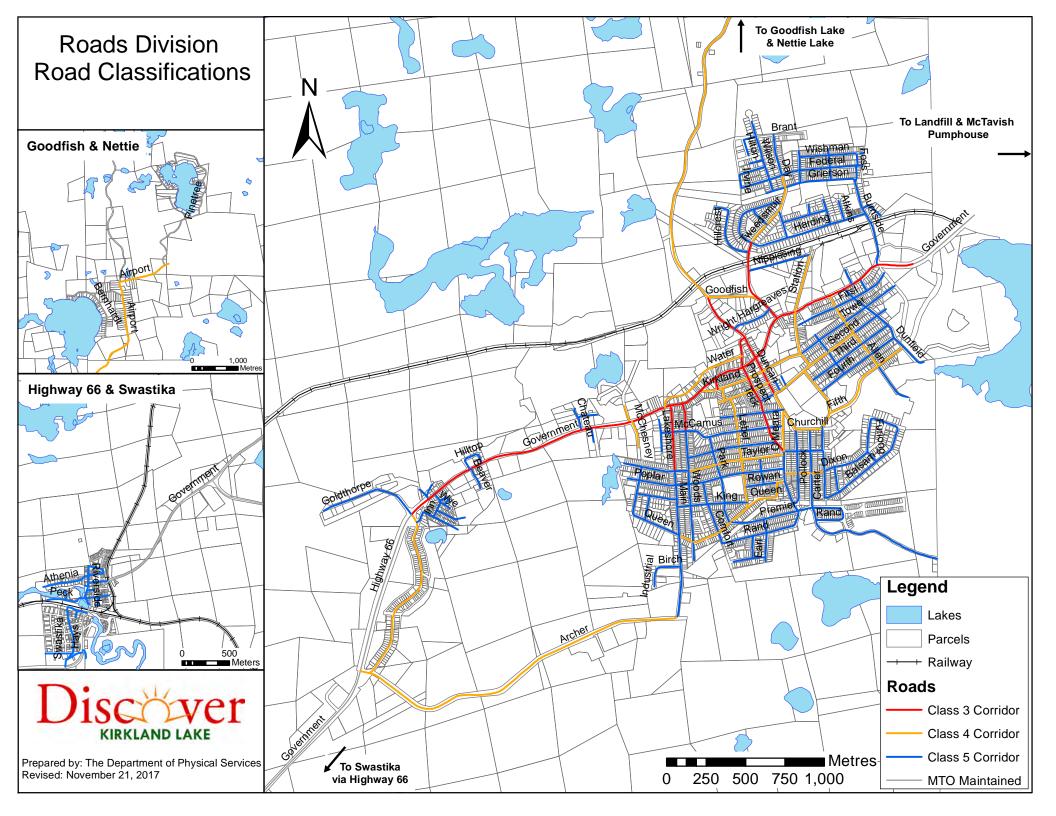
Schedule "J" - O. Reg. 239/02 - Minimum Maintenance Standards for Municipal Highways

Schedule "K" - Winter Parking By-law

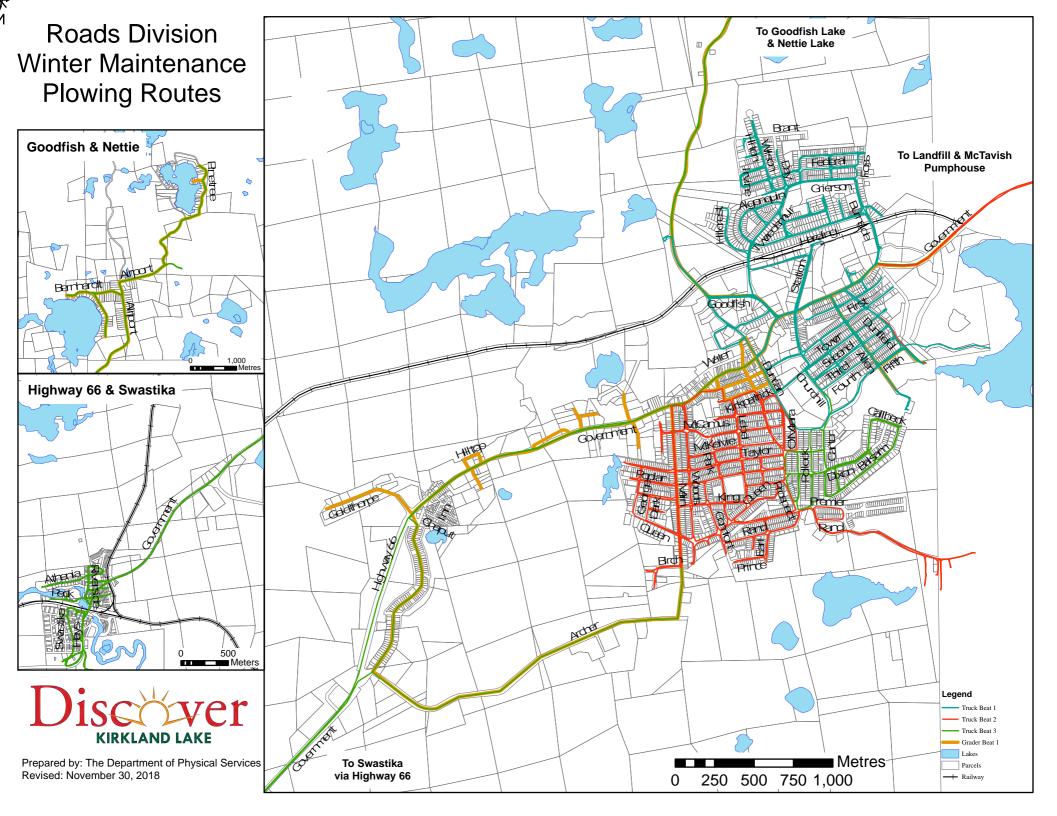
Schedule "L" - Snow By-law

Schedule "A"

Classification of Roads



Schedule "B" Snow Plowing and Grader Beats

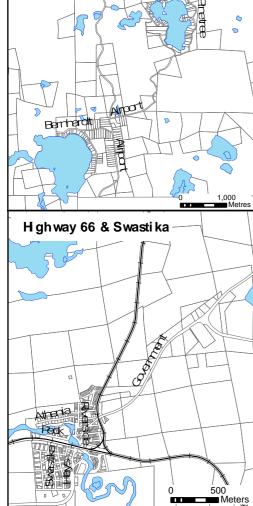


Schedule "C"

Salting Routes

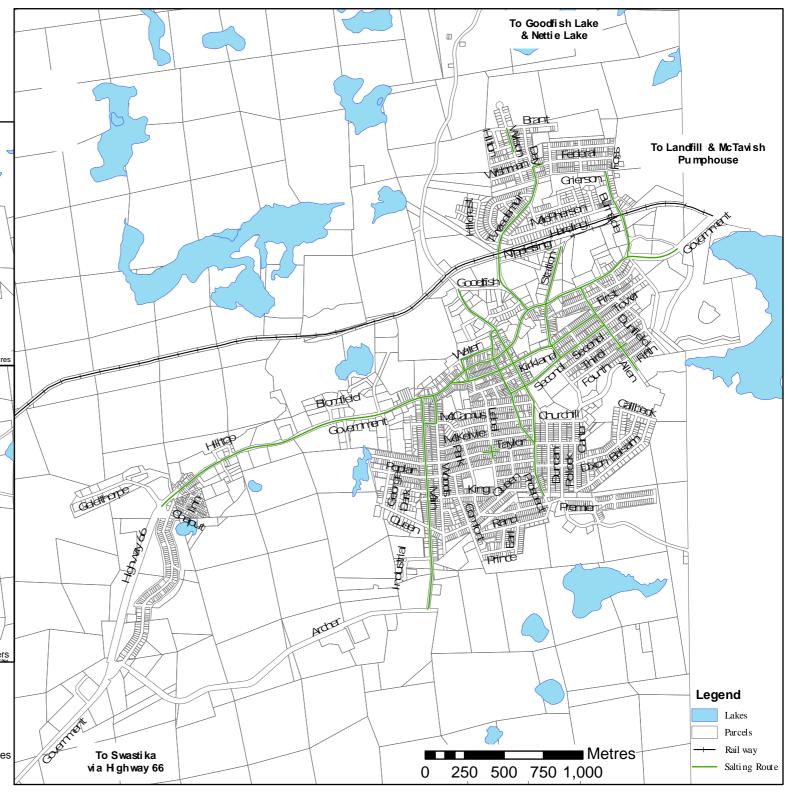
Roads Division Winter Maintenance Salting Route

Goodfish & Nettie



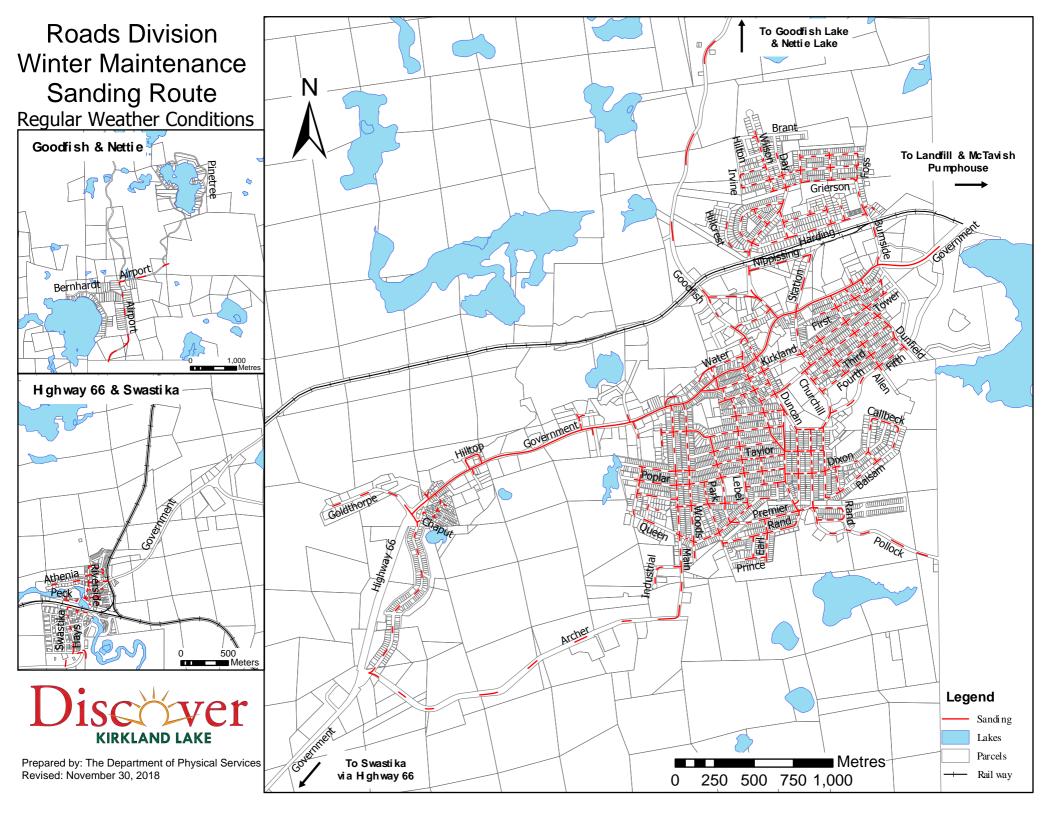


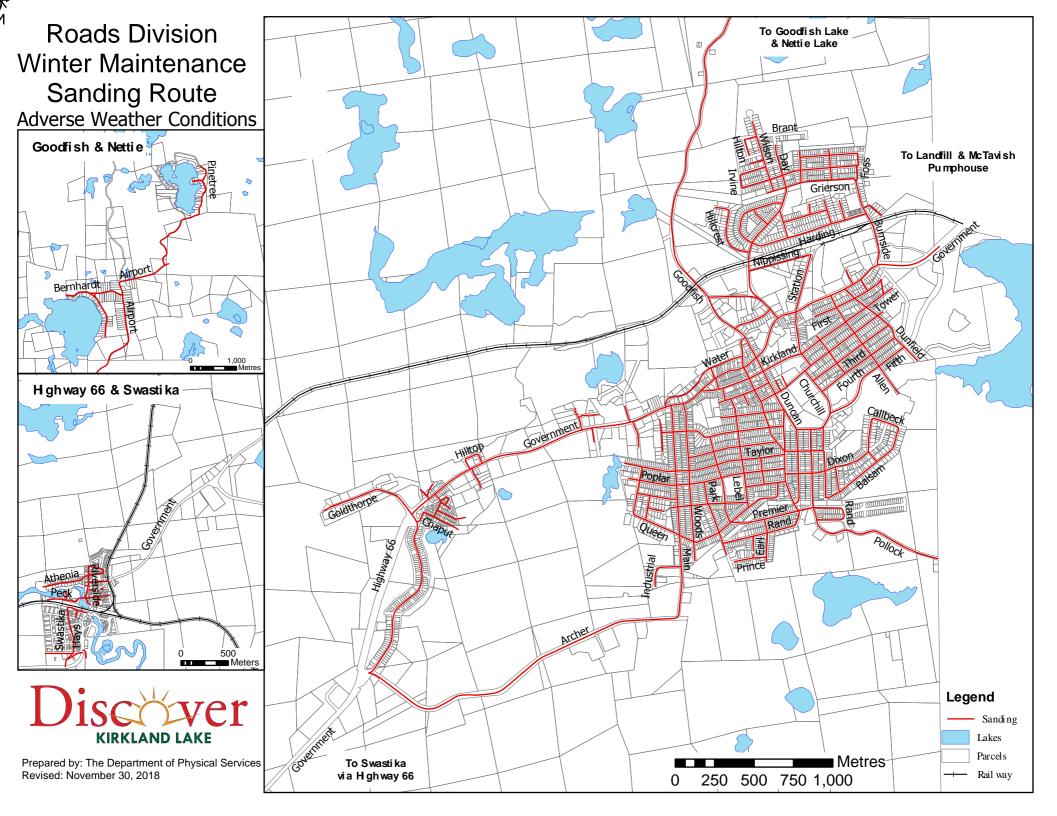
Prepared by: The Department of Physical Services Revised: November 30, 2018



Schedule "D"

Sanding Routes



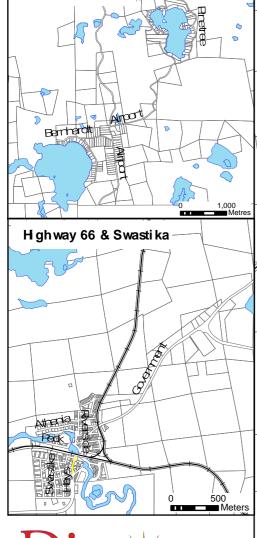


Schedule "E"

Snow Pulls

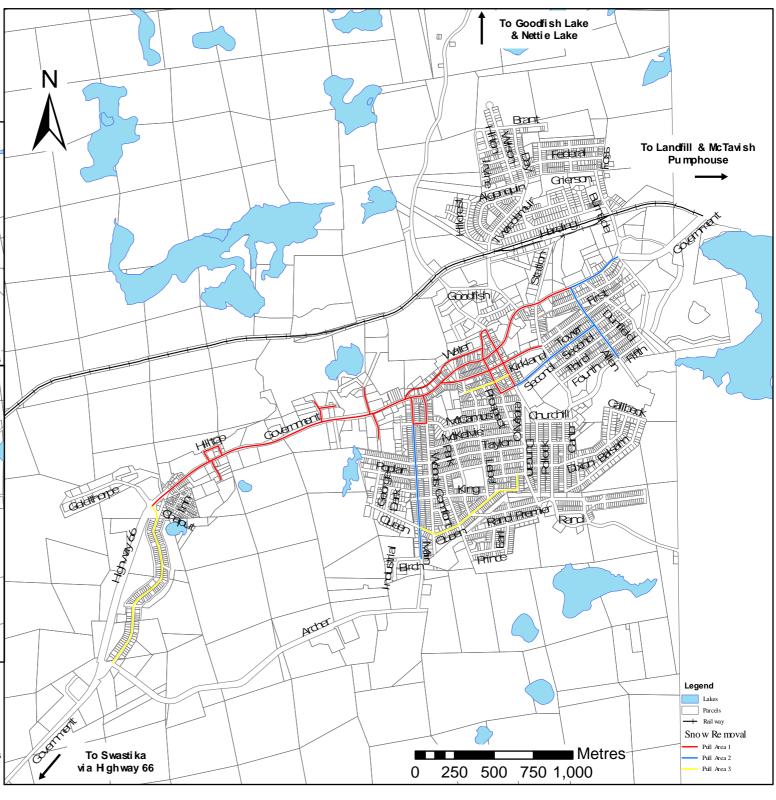
Roads Division Winter Maintenance Snow Removal

Goodfish & Nettie



Discover KIRKLAND LAKE

Prepared by: The Department of Physical Services Revised: November 30, 2018



Schedule "F" Daily Recording Templates



TOWN OF KIRKLAND LAKE WINTER MAINTENANCE

MANUAL DATA RECORDING

te:			
rt time:		End time:	
tivity:			
Plow			
Truck	Beat 1	Beat 2	Beat 3
Grader	Beat 1		
Loader	T251	T258	
Backhoe	T257	T256	
Trackless	T261	T260	
Sand/Salt			
Truck	Beat 1	Beat 2	
Trackless	T261	T260	
Snow Removal			
Truck	Beat 1	Beat 2	Beat 3
Loader	T251	T258	
Backhoe	T257	T256	
Trackless	T261	T260	
Scarify			
Grader			
Loader	T251	T258	
Backhoe	T257	T256	
Other:			

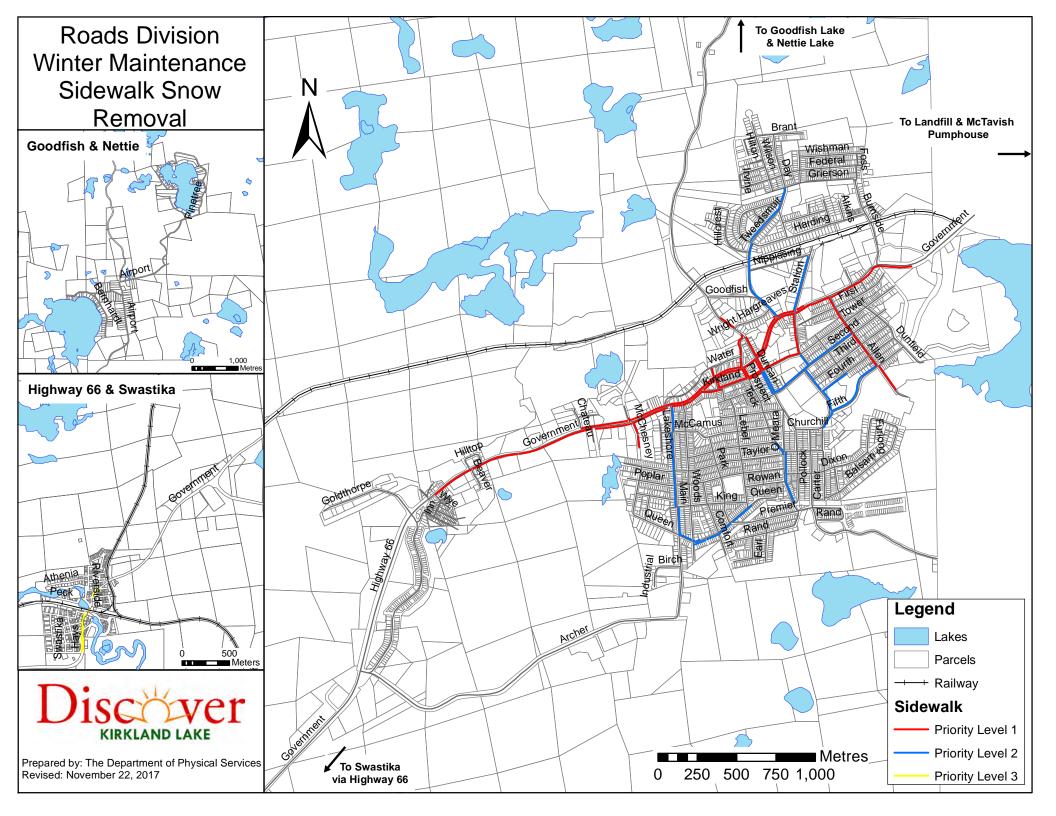
***Areas completed shall be highlighted on accompanying map

WEATHER

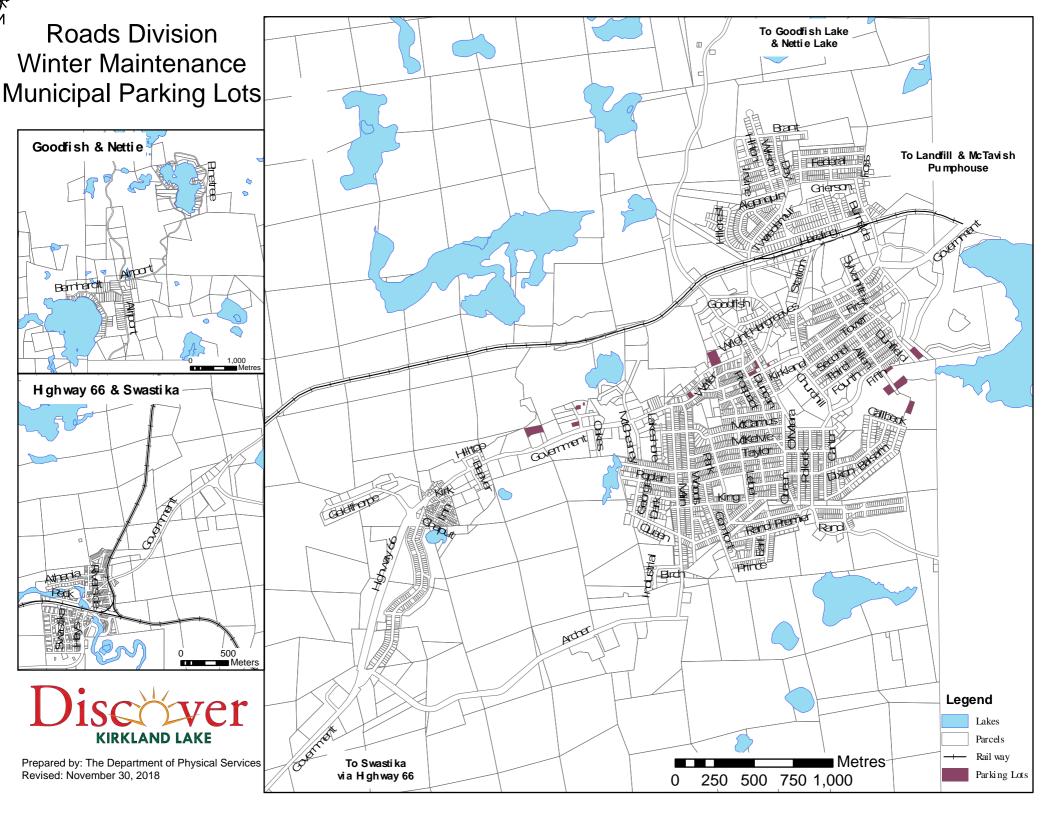
Weather data shall be attached to report, 3 times daily.

Additional notes to be recorded below:

Schedule "G" Maintained Sidewalks

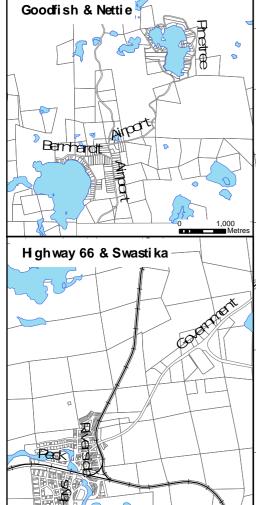


Schedule "H" Location of Municipal Parking Lots



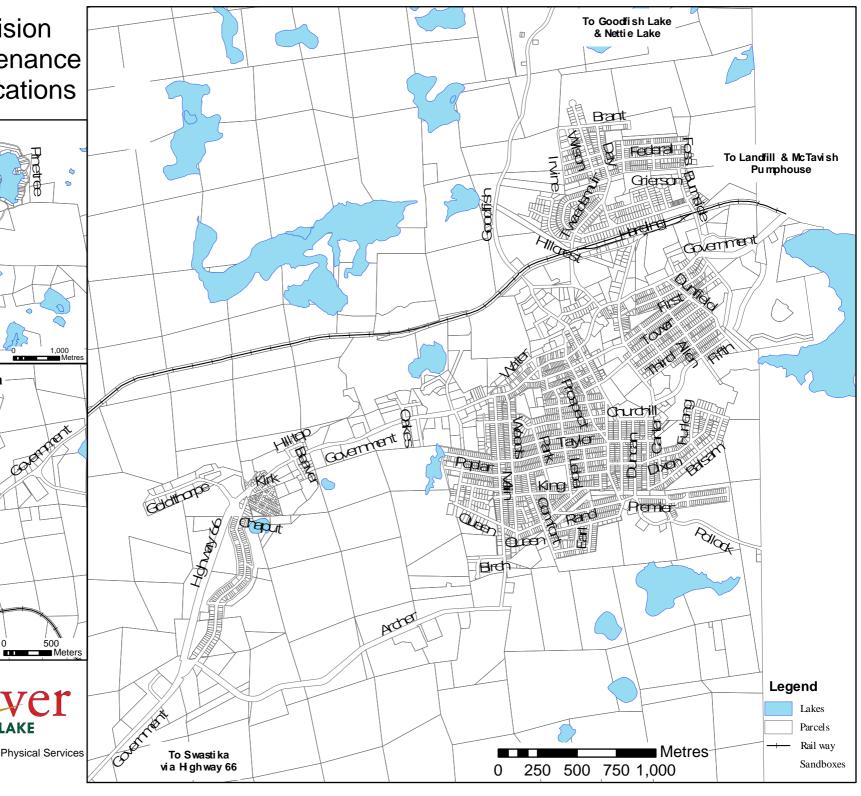
Schedule "I" Location of Sandboxes

Roads Division Winter Maintenance Sandbox Locations





Prepared by: The Department of Physical Services Revised: Novemver 20, 2018



Schedule "J"

Minimum Maintenance Standards for Roadways

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: 288/03, 613/06, 23/10, 47/13, 366/18.

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;

[&]quot;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	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Average Daily Traffic (number	91 - 100 km/h		71 - 80 km/h	61 - 70 km/h	51 - 60	41 - 50 km/h	1 - 40 km/h
of motor vehicles)	speed limit	speed limit	speed limit	speed limit	km/h speed	speed limit	speed limit
					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	Column 2 Depth	Column 3 Time
Adjacent Highway		
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

	10210101
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	Surface Area	Depth	Time
Highway			
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	Column 2
Class of Highway	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

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 16 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.

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