

Winter Minimum Maintenance Standards

City of Timmins
Update January , 2021



Municipal Act 2001

Municipalities in Ontario are responsible for the maintenance of highways as prescribed in the ***Municipal Act 2001***

Ontario Regulation 239/02 - Minimum Maintenance Standards for Municipal Highways provides the details with regards to the standards to be achieved.

The latest revisions were made May 3, 2018

Road Classification

Ontario roads are classified on the basis of Average Daily Traffic and Posted Speed Limits

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

Connecting Link Classification

King, Harold, Hwy 101, Algonquin and Riverside Drive

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
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6,000 - 7,999	1	2	2	3	3	4	4
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500 - 999	1	3	4	4	4	5	5
200 - 499	1	3	4	4	5	5	6
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Collector Roads Classification

Ross/Jubilee, Theriault, Airport Road, Laforest & Shirley, Pine, Maclean, Park, Brunette

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
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500 - 999	1	3	4	4	4	5	5
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Arterials & Rural Roads Classification

Kamiskotia, Municipal, Frederick House Lake Rd.,
 Finn Rd., Sandy Falls, Kraft Creek, Carrigan,
 Mahoney, Gibson Lake, etc.

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1,000 - 1,999	1	3	3	3	4	5	5
500 - 999	1	3	4	4	4	5	5
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50 - 199	1	3	4	5	5	6	6
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Residential Street Classification

Most streets 2 lane residential streets in all 5 wards are classified as 5 or 6

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3,000 - 3,999	1	2	3	3	3	4	4
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What is the road class for the connecting link?

Connecting link - generally operates as a Class 2 highway.

City of Timmins deploys resources on the connecting link in accordance to a Class 2 highway standards. In addition, Theriault, Airport Road, Lafleur Drive, Shirley and Ross/ Jubilee get the same level of service.

A 5cm snow accumulation is required to initiate a plowing activity. We generally deploy within 1 hour.

What is the road class for the collector roads?

Collectors generally operate as a Class 3 or 4 highway.

City of Timmins deploys resources on high speed collectors in accordance to a Class 3 highway standards.

An 8cm snow accumulation is required to initiate a plowing activity and we have 12 hours to deploy once we have been made aware. We generally deploy within 6 hours and it very much depends on the storm intensity and weather forecast.

What is the road class for the rural roads & residential streets ?

Most rural roads and residential streets generally operate as a Class 4 , 5 and some 6 highways.

City of Timmins deploys resources on the these roads in accordance to a Class 4 & 5 highway standards.

An 8 to 10 cm snow accumulation is required to initiate a plowing activity and we have 12 to 24 hours to deploy once we have been made aware. We generally schedule a city wide plowing operations to start at midnight, and will supplement depending on the storm intensity and weather forecast.

What does the MMS say about snow accumulation?

DURING A SNOW STORM, the MMS says that once the municipality is aware that snow accumulation is greater than that set in the Table, the municipality is required to deploy resources as soon as practicable to address the snow accumulation.

Effective May 3, 2018 The Municipality can declare a Significant Weather Event, such as a blizzard, heavy snowfall warning or freezing rain event.



What is a Significant Weather Event?

“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;.

What does the MMS say about significant weather events?

If a municipality declares a significant weather event relating to snow accumulation, the standards set out by the MMS for Snow accumulation on roadways, sidewalks and bicycle lanes as well as icy roads, roadways sidewalks and bicycle lanes is suspended. The roads, sidewalks and bicycle lanes are deemed to be in a state of repair until the end of the significant weather event as long as the municipality does the following:

- Monitor the weather
- If deemed practicable by the municipality, to deploy resources to address the condition, starting from the time that the municipality deems appropriate to do so.

Time lines laid out in the MMS start back up at the end of the declaration of the end of the Significant Weather Event, and the municipality shall declare the end of the significant weather event when the municipality determines it is appropriate to do so.

What does the MMS say about snow accumulation?

WHEN A STORM HAS ENDED, the MMS says that the municipality is responsible to reduce the snow to a depth less or equal to the depth set out in the Table within the time set out in the Table and to provide a minimum lane width.

Class	Depth	Time
1	2.5cm	4 hours
2	5.0cm	6 hours
3	8.0cm	12 hours
4	8.0cm	16 hours
5	10.0cm	24 hours

Lane width of 3.0 meters or the actual lane width which ever is less for each lane. Class 4 & 5 must be a minimum 5 meters for 2 lanes.

What does the MMS say about snow accumulation?

Important clause to recognize and understand
ONT REG 239/02 Section 4 subsection 2

If the depth of snow accumulation on a roadway is less or equal to the depth set out in the Table, the roadway is deemed to be in a state of repair with respect to snow accumulation.

i.e. a Class 5 road with 10 cm of snow accumulation on it is deemed to be in a state of repair and does not require immediate attention.

The level of service provided by the City of Timmins

Once a storm has ended, the City of Timmins can plow all of the roads under its jurisdiction within a period ranging from 12 to 18 hours. This includes rural roads, laneways and some parking lots.

Some highways receive a 24 hour bare pavement level of service, which greatly exceeds the classification for such roads.

Snow accumulation is completely pushed off the travelled roadway within 12 to 18 hours which exceeds the requirements for all classes. (i.e. zero accumulation on travelled portion of roadways)

What does the MMS say about ice formation and treating icy conditions?

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 to section 3.1
2. Patrol in accordance to 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

What does the MMS say about ice formation and preventing icy conditions?

The standard for the prevention of ice formation on roadways if practicable in Table 1 is as follows:

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



The best practice for the prevention of icing is to have DLA (direct liquid application) program. This is identified in the City of Timmins slat Management plan as a future aspiration.

What does the MMS say about ice formation and treating icy conditions?

Once ice forms on a roadway Table 2 sets out the minimum response times to treat the icy conditions once the Municipality becomes aware of the fact a roadway is icy

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



What do we do about icy conditions?

Public works subscribes to a commercial weather forecaster who provides us two (2) local area forecasts (LAF) and 3 virtual Road Weather Information System forecasts (RWIS) 3 times a day.

Local Area Forecast for Mount Joy

wood.

Issued At: Monday 21 December 2020 0800 EST
Valid Until: Sunday 27 December 2020 1000 EST

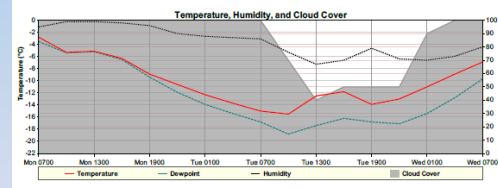
Northern Ontario Discussion
Mainly cloudy with isolated flurries today. Partly cloudy Tuesday morning and afternoon then cloudy with snow over northwest Ontario Tuesday evening. Cloudy with snow or flurries Wednesday.

Forecast
Metric by hour

Date	Mon Dec 21					Tue December 22 2020					Wed 23	
	Morning	Afternoon	Evening	Overnight		Morning	Afternoon	Evening	Overnight			
Hour (EST)	11	12	1	2	3	4	5	6	7	8	9	10
Temp (C)	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
Temp (F)	30	30	30	30	30	30	30	30	30	30	30	30
Wind Dir (km/h)	100	100	100	100	100	100	100	100	100	100	100	100
Wind Speed (km/h)	5	5	5	5	5	5	5	5	5	5	5	5
Cloud Cover (%)	100	100	100	100	100	100	100	100	100	100	100	100

Outlook

Date	Wed Dec 23			Thu Dec 24			Fri Dec 25			Sat Dec 26			Sun 27		
Hour (EST)	19	16	22	4	10	16	22	4	10	16	22	4	10	16	22
Snow															
Flurries															
Plumes															
Blizzards															
Liquid Accum. (mm)															
Freeze Accum. (mm)															
Snow Accum. (cm)															
Cloud Cover (%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Temp (C)	-4	-1	-5	-8	-8	-11	-18	-19	-16	-18	-18	-14	-16	-15	-14
Temp (F)	25	30	23	18	18	13	0	-7	7	-5	-5	7	7	5	7
Wind Dir (km/h)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Wind Speed (km/h)	14	9	8	11	14	15	14	16	16	14	10	4	5	3	7
Cloud Speed (km/h)	20	13	6	19	24	27	26	24	27	27	24	17	4	5	3



RWIS Forecast for Hwy101-Bruce Av

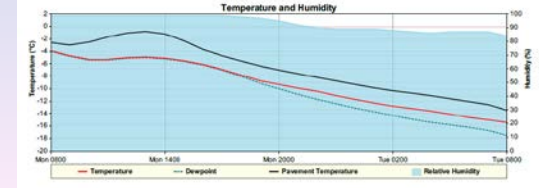
wood.

Issued At: Monday 21 December 2020 0800 EST
Valid Until: Tuesday 22 December 2020 1000 EST

Northern Ontario Discussion
Mainly cloudy with isolated flurries and showers today. Partly to mainly cloudy on Tuesday. Mainly cloudy Wednesday with scattered flurries Wednesday afternoon.

Forecast
Metric by hour

Date	Mon December 21 2020												Tue Dec 22				
	M	A	P	N	E	S	W	N	E	S	W	N	E	M	A		
Hour (EST)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Temp (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Temp (F)	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Wind Dir (km/h)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Wind Speed (km/h)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Cloud Cover (%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100



What do we do about icy conditions?

We also patrol our class 1,2,3 and select class 4 roads on a 24/7 basis and dispatch our Highway Maintenance Contractor immediately as snow starts to accumulate on the roadways, or as freezing rain starts.

All remaining class 4, 5 and 6 roadways are patrolled 7 days a week by sand truck operators and sanded as required, as well as weekly by supervisory staff.

Questions

