

# Winter Conditions within the Right of Way



# Agenda

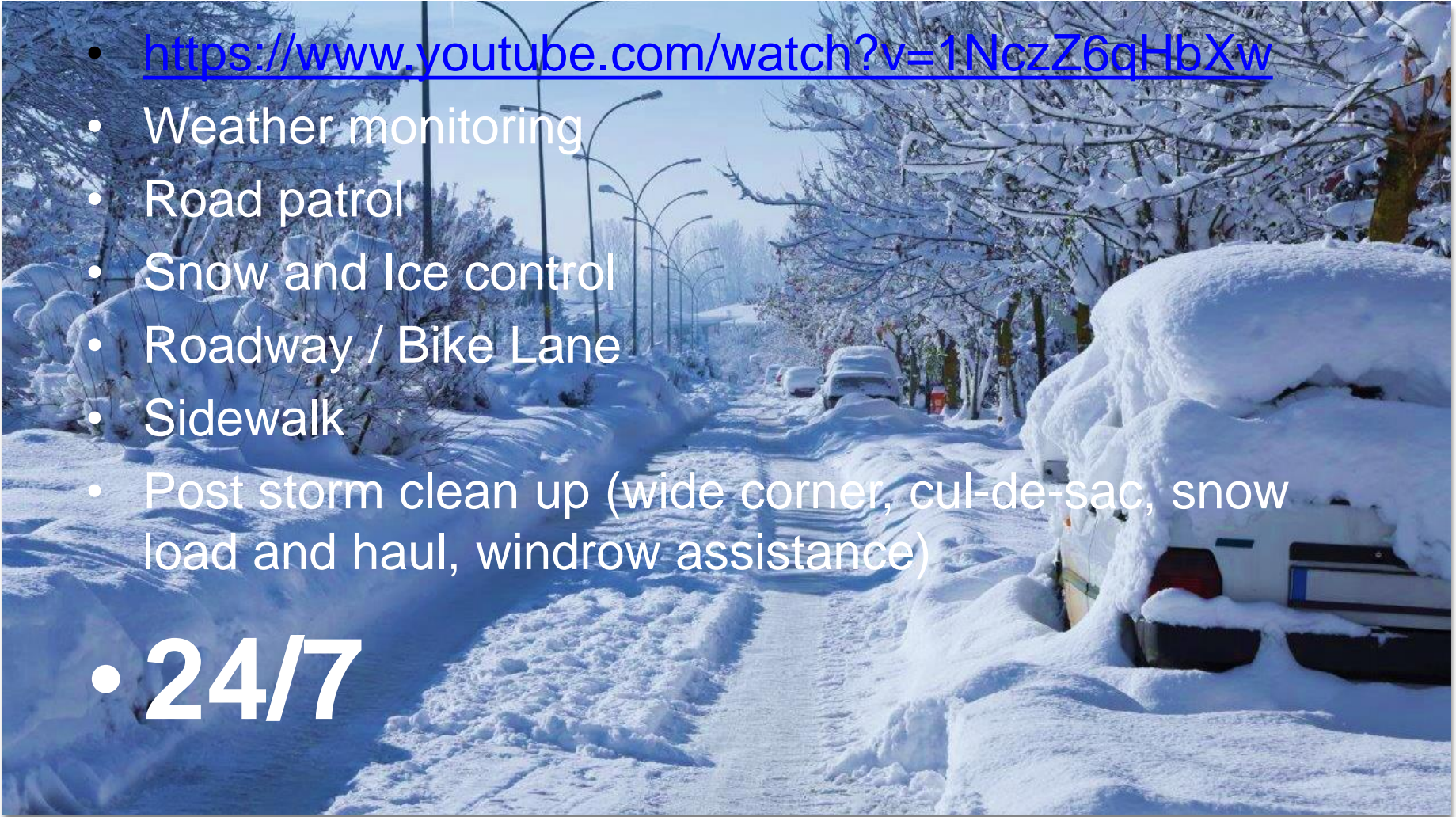
1. What is Winter Maintenance?
2. Service Level and Legislation Expectation
3. Impact to Service Delivery
4. Resident Concern Statistics/Data
5. Winter Shut Down
6. Questions



# What is Winter Maintenance

- <https://www.youtube.com/watch?v=1NczZ6qHbXw>
- Weather monitoring
- Road patrol
- Snow and Ice control
- Roadway / Bike Lane
- Sidewalk
- Post storm clean up (wide corner, cul-de-sac, snow load and haul, windrow assistance)

• **24/7**



## Service Level and Legislation Expectation

- Code of Practices by Environment Canada (Federal) – Recommend all government agencies to have a Salt Management Plan
  - sets out policy and procedural framework for continuous improvement of the management of salt in winter operations;
  - manages the salt use to reduce the environmental impacts; and
  - aligns to the Federal code without compromising road safety ensuring compliance to Ontario's Minimum Maintenance Standards for winter maintenance, Ontario Reg. 239/02.
- Minimum Maintenance Standards, Ontario Reg. 239/02 (Provincial)
  - sets out minimum winter maintenance service levels for municipalities;
  - provides a standard instrument for municipalities in Ontario to defend themselves against claims related to winter maintenance; and
  - City of Markham's service level exceed Ontario legislation

# Service Level and Legislation Expectation

- Minimum Maintenance Standards, Ontario Reg. 239/02 (Provincial)

## **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,



# Service Level and Legislation Expectation

- Minimum Maintenance Standards, Ontario Reg. 239/02 (Provincial)

## 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.

## Current Service Level - Primary Road



High volume road  
Salted and/or plowed to achieve a bare surface condition 24/7  
864 km (39.3%)

## Current Service Level - Secondary Road



Roads connect to primary with hills  
Salted and/or plowed to achieve a centre bare surface 7am – 6pm  
164 km (7.5%)



## Current Service Level - Local Road / Rear Lane



Low volume roads – considered acceptable in snow packed condition  
Plowed when snow reach/exceed 7.5cm or 12cm if snowfall continue.  
Take up to 16 hours. Wide corner clean up follow after locals plowed  
1,171 km (53.2%)

## Current Service Level - Sidewalk



Sidewalk on both Regional and City Roads  
Plow and apply material when snow reach/exceed 5cm, within 24 hrs  
1,112 km

# Ipsos Residential Survey

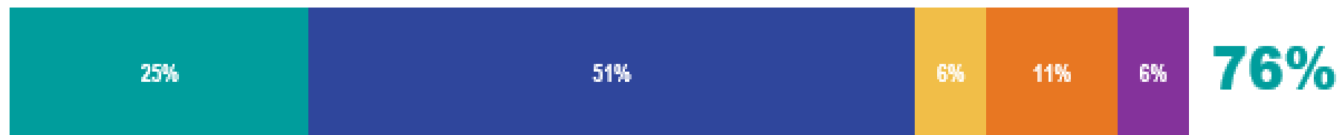
## Satisfaction with Overall Winter Maintenance

Three quarters of Markham residents state they are *very/somewhat* satisfied with overall winter maintenance provided by the City of Markham. Only 17% of resident indicate that they are dissatisfied.

Among Markham residents, those who did not contact the city and those who would prefer no change to plowing services are significantly more likely to be satisfied with the City's winter maintenance.

- Very Satisfied
- Somewhat Satisfied
- Neither Satisfied Nor Dissatisfied
- Somewhat Dissatisfied
- Very Dissatisfied

SATISFIED

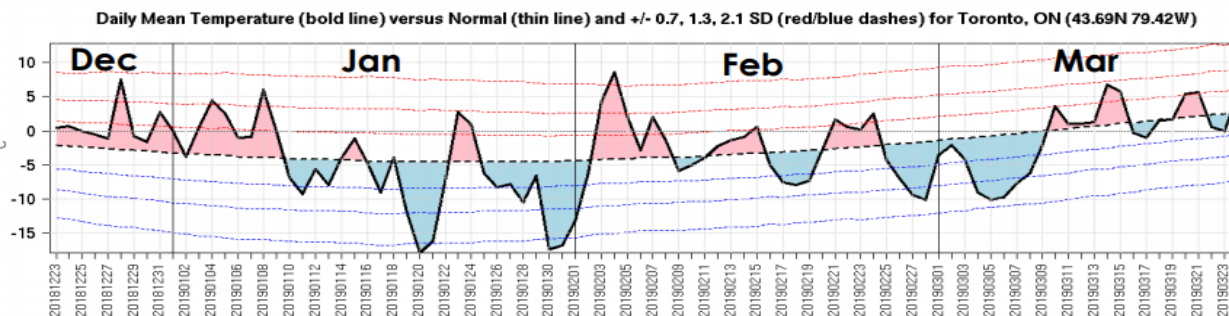




## Impacts to Service Delivery

- Climate Changes - Fluctuating Weather Patterns
  - Increased frequency of ice and mixed precipitation
  - May recognize increased frequency of equipment breakdown
  - Requires longer clean up time

### Winter 2018/2019 - Temperature



- Salt Supply & Capacity / Snow Storage Limitation
  - Salt supply / shortage / storage
  - Deployment
  - Snow storage site
  - New operations yard ongoing

## Impacts to Service Delivery

- New Built Form



- Parking on Road



# Impacts to Service Delivery

- Construction





# Impacts to Service Delivery

- Roads Cut





# Impacts to Service Delivery

- Roads Setback





# Impacts to Service Delivery

- Sidewalk





# Impacts to Service Delivery

- Sidewalk



# Impacts to Service Delivery

- Sidewalk





# Impacts to Service Delivery

- Sidewalk





## Contact Centre Call Volumes

- 2017 to 2019 call volumes related to utility and streetlight = **6,240**
- Streetlight calls related to
  - New Light Request
  - Patrol Request
  - Light Malfunction
- Utility calls related to
  - TV
  - Phone
  - Gas
  - Hydro
  - Utility Safety Related
  - Other Telecommunication Cables

# Winter Shutdown

Nov 1<sup>st</sup> to Apr 15<sup>th</sup> winter seasons terms and conditions applicable

Dear All,

With Labour Day behind us, Operations would like to remind everyone that annually, the **Winter Maintenance Season** occurs between **November 1<sup>st</sup> and April 15<sup>th</sup>**. Due to potential conflicts with snow clearing and the increased difficulty in road restoration, non emergency **road cuts are not permitted**. Please ensure third party and contractual obligations that will require road cuts to be undertaken during this period are not made.

A road cut is any excavation which occurs within the traveled portion of the roadway involving the removal of the asphalt layer. For more details about ROP application and the requirements, please refer to attached FAQ as reference.

Thank you,

- The City works will review each application to accommodate boulevard construction activities given:
  - Snow fence with ply or temporary restoration
  - Proper signage and traffic protection for temporary closure or detour
  - Permanent restoration to follow



# Let's Weather Winter Together

Let's plan ahead and share the ROW to provide a safe roadway and sidewalk for all road users.



Alice Lam, Sr. Manager, Roads, Survey & Utility (Alam@Markham.ca)

# Questions

