

# **Winter Operations Service Standards Review**

**June 10, 2013**

# Agenda

- **Purpose of the Review**
- **Background – Current Service**
- **Standards – approved Feb. 12, 2008**
- **Stakeholder Concerns – Feb 2013**
  - **Snow Removal in Rear Lanes**
  - **Sidewalk Snow Removal**
  - **Windrow Clearing**
  - **Communication/Public Education**

# Purpose

- **At its meeting held on March 4<sup>th</sup>, 2013, Council discussed concerns raised by residents following the snow fall on February 27, 2013.**
- **Council directed Operations staff to review current service levels and have discussion with Council on specific winter operations services including:**
  - **Rear lane service standards**
  - **Sidewalk snow clearing/Coordination with Region**
  - **Windrow removal**

# Road Classifications

Markham's road network is divided into three classifications:

## *Primary Roads (Denison, Carlton, John St)*

- Carry large volumes of traffic and distribute traffic onto Regional arterial roads.
- Include transit and emergency routes for ambulance, fire, police, etc.
- Provide access to schools, churches, community centres and industrial/commercial areas.

## *Secondary Roads (Peter St, Chatelaine, Baymark)*

- Carry moderate traffic volume and distribute traffic onto primary roads
- Include roads with extreme hills, curves and access points

## *Local Roads and Lanes*

- Carry very low volumes of traffic and are not intended to carry through traffic.
- Provide access to private driveways, garages and parking spaces.

# Primary Road Service Standards

## Salting/Sanding

- Sand/salt trucks are dispatched at the start of a snowfall and at the first sign of roads beginning to ice, starting with our primary road network
- Salting/Sanding operations takes approximately 2 to 3 hours to complete.

## Plowing

- All primary roads are plowed when accumulations reach or exceed 3cm.
- Primary road network plowing is completed within the first 5 to 6 hours

Operations dispatches a total of 25 units (6 in-house and 19 contracted) to complete both sanding or plowing operations

# Secondary Road Service Standards

## Salting/Sanding

- Sand/salt trucks commence operations following completion of the primary road network
- Salting/Sanding operations takes approximately 1 to 2 hours to complete.

## Plowing

- All secondary roads are plowed when accumulations reach or exceed 3cm.
- Secondary road network plowing is completed within the first 2 to 3 hours

# Local Road Service Standards

## *Salting/Sanding*

- Local roads are considered acceptable in a snow packed condition.
- Tandem combination units are dispatched to salt/sand local roads when conditions deteriorate and ice build up forms on the road surface.
- Local road salting/sanding operations takes approximately 7 to 8 hours to complete.

**Operations dispatches a total of 25 units (6 in-house and 19 contracted) to complete local road salting/sanding operations**

# Local Road Service Standards

## *Plowing*

- All local roads are plowed when accumulations reach or exceed 7.5 cm.
- Local road plowing is completed within 12 to 14 hours for total accumulations up to 15 cm
- For storms greater than 15 cm, road plowing is generally completed within 16 to 20 hours

**Operations dispatches a total of 43 contracted units to complete local road plowing operations**



# Local Road During Storm



# Local Centre Bare



# Rear Lane Service Standards

## *Salting/Sanding*

- Same as Local Road service standards

## *Plowing*

- 7.5 cm threshold –same as local road plowing
- Service for both lanes and locals commence at the same time
- Removal of snow after an initial storm in the 7.5 to 15 cm range, takes approximately 16 hours to complete, utilizing 28 contracted loaders
- As storage areas are depleted (i.e. greater accumulations, multiple storms), level of service to complete lanes increases to between 24 and 48 hours (depending on volume).

# Sidewalk Clearing Service Standards

- Sidewalk network divided into primary and secondary service classifications
- Sidewalks classified as primary include the following
  - Sidewalks on all Regional roads
  - Sidewalks on transit routes
  - Sidewalks in school zones and seniors facilities
  - Community Centres and Commercial areas
- All other sidewalks/pathways classified as secondary

# Sidewalk Clearing Service Standards

## Sidewalk Sanding

- All primary and secondary sidewalks are sanded within 12 to 14 hours

## Sidewalk Plowing

- All sidewalks are plowed when accumulations reach 5cm.
- Primary sidewalk network is completed within the first 12 hours
- Secondary sidewalk network completed within 36 hours

Operations dispatches a total of 33 units (9 in-house and 24 contracted) to complete both sanding or plowing operations



# Rear Lane Snow Removal

## *Stakeholder Concerns*

- 1. Time required to complete snow removal**
- 2. Availability of adequate snow storage (related to subdivision design)**
- 3. Reduced site lines at intersections**

# 1. Rear Lane Service Standards – Align with Local Road Service Standard

## Option to improve service delivery:

- Reduce time to complete rear lanes from 16 to 12 hours
  - Additional 7 loaders required
  - Annual standby costs - \$81,900
  - Annual operating costs – negligible

# 1. Rear Lane Service Standards – Repeat or Major Snow Events

**For Extreme snowfall accumulations:**

- **Tender for additional loaders to be available on an 'as required' basis only.**
  - **Additional 7 loaders required**
- Option 1**
  - **No standby to be paid - Operating rates set at \$300/hour to attract qualified contractors**
- Option 2**
  - **Negotiate \$50/day standby – Operating rates set at \$225/hour**
  - **Operational impact - \$43,100 (standby only)**



## 2. Availability of Adequate Snow Storage – New Development

Cross Commission Team established to address impact of growth on municipal services

- Project charter under development to address improved cross Departmental collaboration on approval for subdivision design, Engineering/Urban Design standards and specifications.
- Incorporate additional storage areas into laneway product in new subdivision design (dedicated seasonal visitor parking in rear lanes)

## 2. Availability of Adequate Snow Storage – Existing Development

Operations Facility Master Plan identifies need to;

- acquire land and incorporate environmentally approved snow dumps in new and/or rehabilitated Public Works facilities
- acquire lands in north-east area of the City for future Operations Yard (currently being explored)
- Reduce snow hauling costs with introduction of snow dump sites in closer proximity to impacted areas

## 3. Reduced Site Lines

- **Most prevalent in areas with rear lane product and during extreme storm events**
- **Although this presents significant safety concerns, generally Operations follows up within 48 hours following the rear lane snow clearing to remove piles**

# Sidewalk Snow Clearing

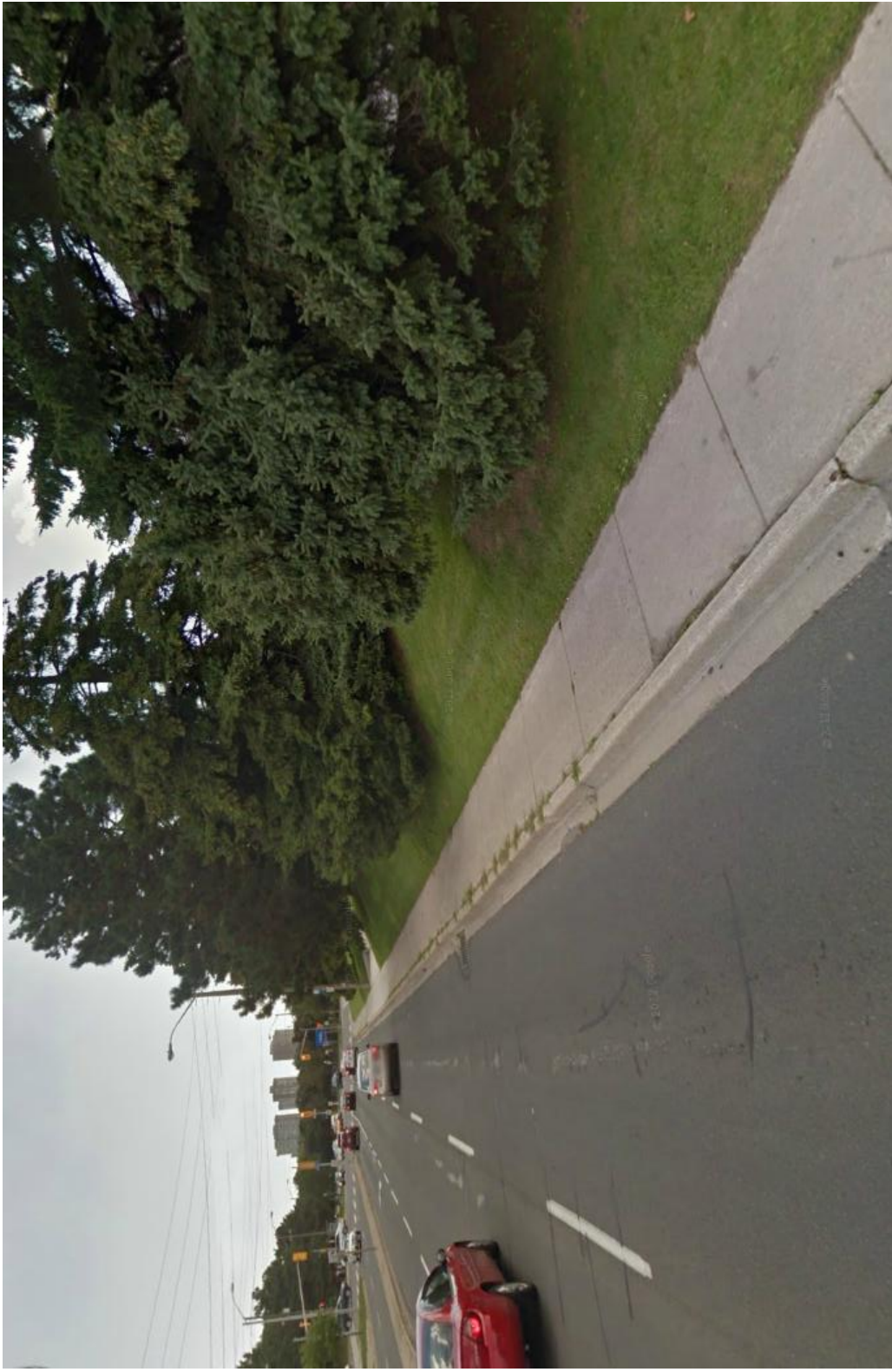
## Stakeholder Concerns

- **Level of service provided for sidewalks on Regional roads**
- **Lack of coordination of road, sidewalk and transit stop snow clearing efforts between City and Region**

# Region/City Coordinated Efforts

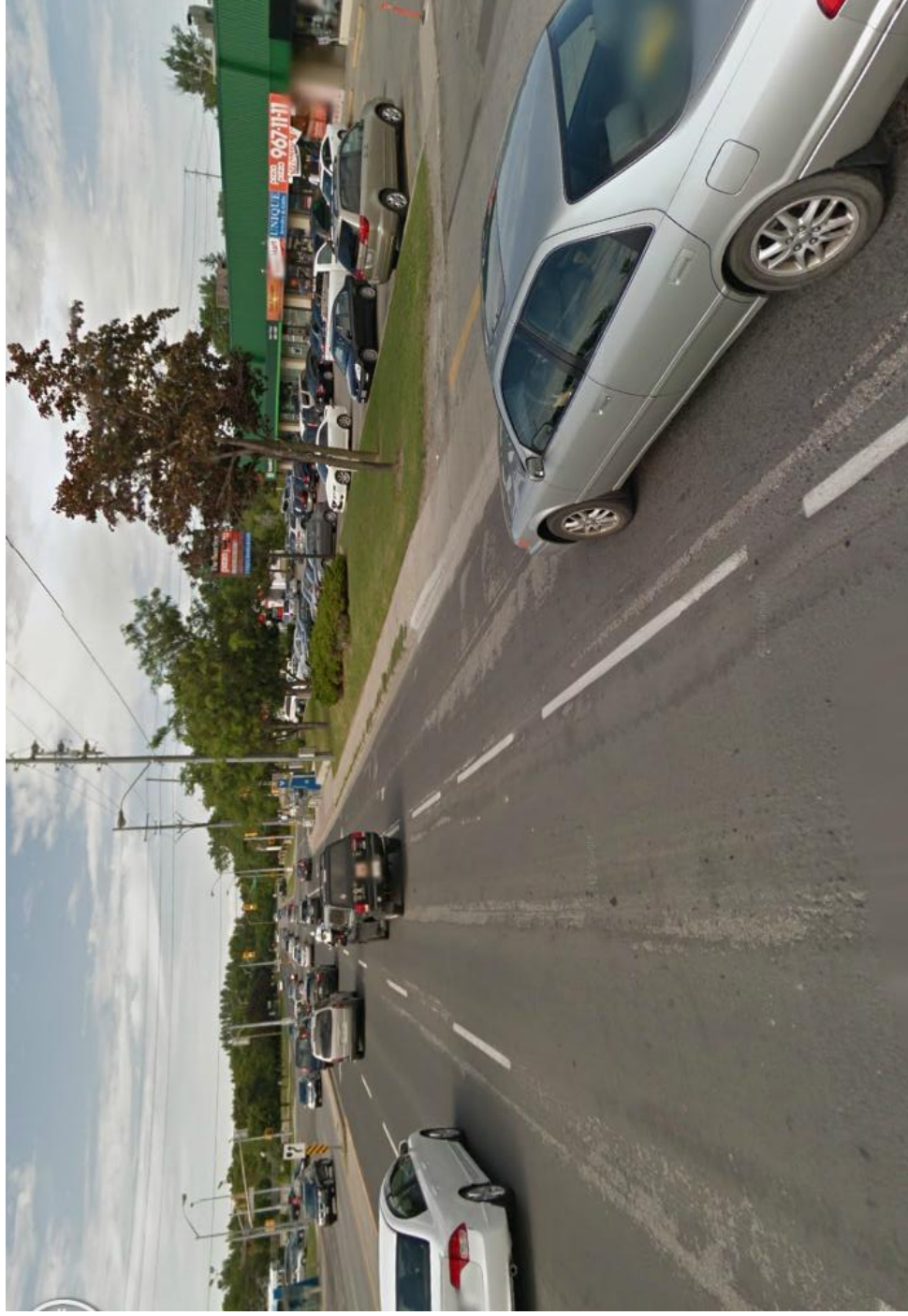
- **All sidewalks on Region roads are the responsibility of the City to maintain**
- **Sidewalk design/construction creates situations where sidewalk is impossible to maintain – no room for snow storage**
- **Lack of cooperation/action to deal with road and sidewalk plowing schedules and sequencing**

# Don Mills – North of Steeles





# Kennedy and Hwy 7



# Hwy 7 – East of Main Street Markham





# Sidewalk Snow Removal



# Sidewalk Snow Removal





# Conflicts Between Multiple Service Providers



## Next Challenges/Opportunities on the Horizon

- **Greater pressure on winter operations activities approaching due to:**
  - New VIVA rapid transit corridors
  - Increased urbanization in several corridors
- **Increased volume of pedestrians and boulevards filled with streetscapes and amenities mean we will have to remove snow**
- **Need 'buy in' and support from City, Region, VIVA and Metrolinx to resolve the bigger issues**

## Next Challenges/Opportunities on the Horizon

Discussions underway with York Region on following areas:

- Two tier jurisdiction means multiple service providers – Region Operations, Region Transit, Markham Operations
- Different service levels established by each of the service providers
- Boundary between Region and City 'spaces' is blurred
- Boundary between Metrolinx transit corridor, Regional Transit service, Regional roads and traffic service and City sidewalk service is also blurred
- Region to take more ownership of responsibility for sidewalk maintenance on Region roads.

*'When Region got into the Transit and Rapid Transit business, they also got into the pedestrian business.'*

# Windrow Clearing

## Stakeholder Concerns

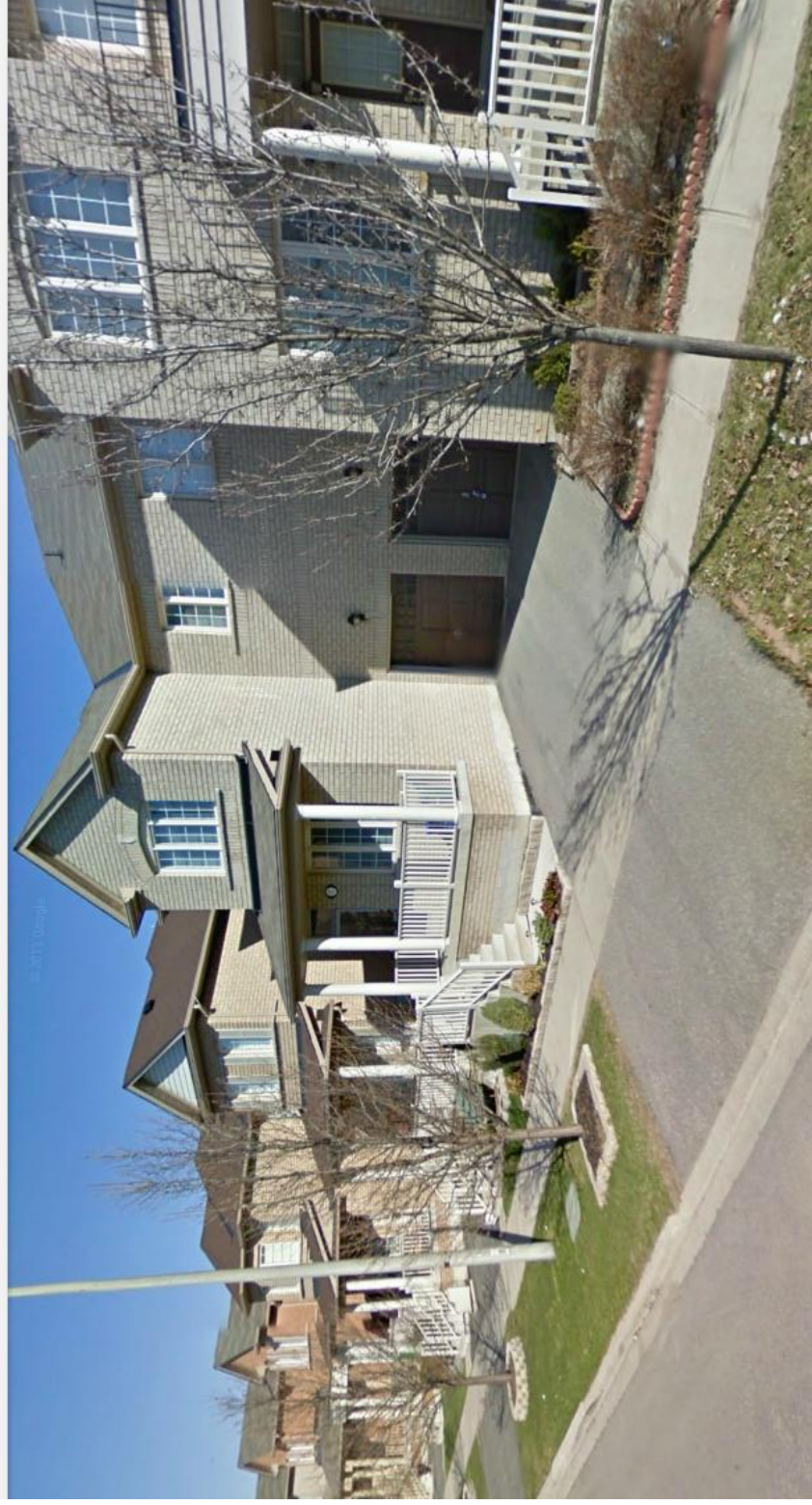
- Request for City-wide windrow clearing service
- Volume of windrow for homes on wider streets or adjacent to intersections
- Service standards for existing seniors program
- Customer expectations related to existing program

# City-wide Windrow Clearing

- **Service standards**
  - Ability to provide consistent service across the City (snow storage issues)
  - Compromised storage available after successive storm events
- **Customer satisfaction – (Experiences of other municipalities offering service)**
  - Inability to clear entire driveway width
  - Snow falling off plow and into driveway
  - Damage to asphalt and unit pavers on driveway aprons
- **Cost to implement program**



# Challenging Situations Semi-detached Shared Driveway





# Typical 'Wide Corner' Driveway Access



# City-wide Windrow Clearing

## Cost to implement program

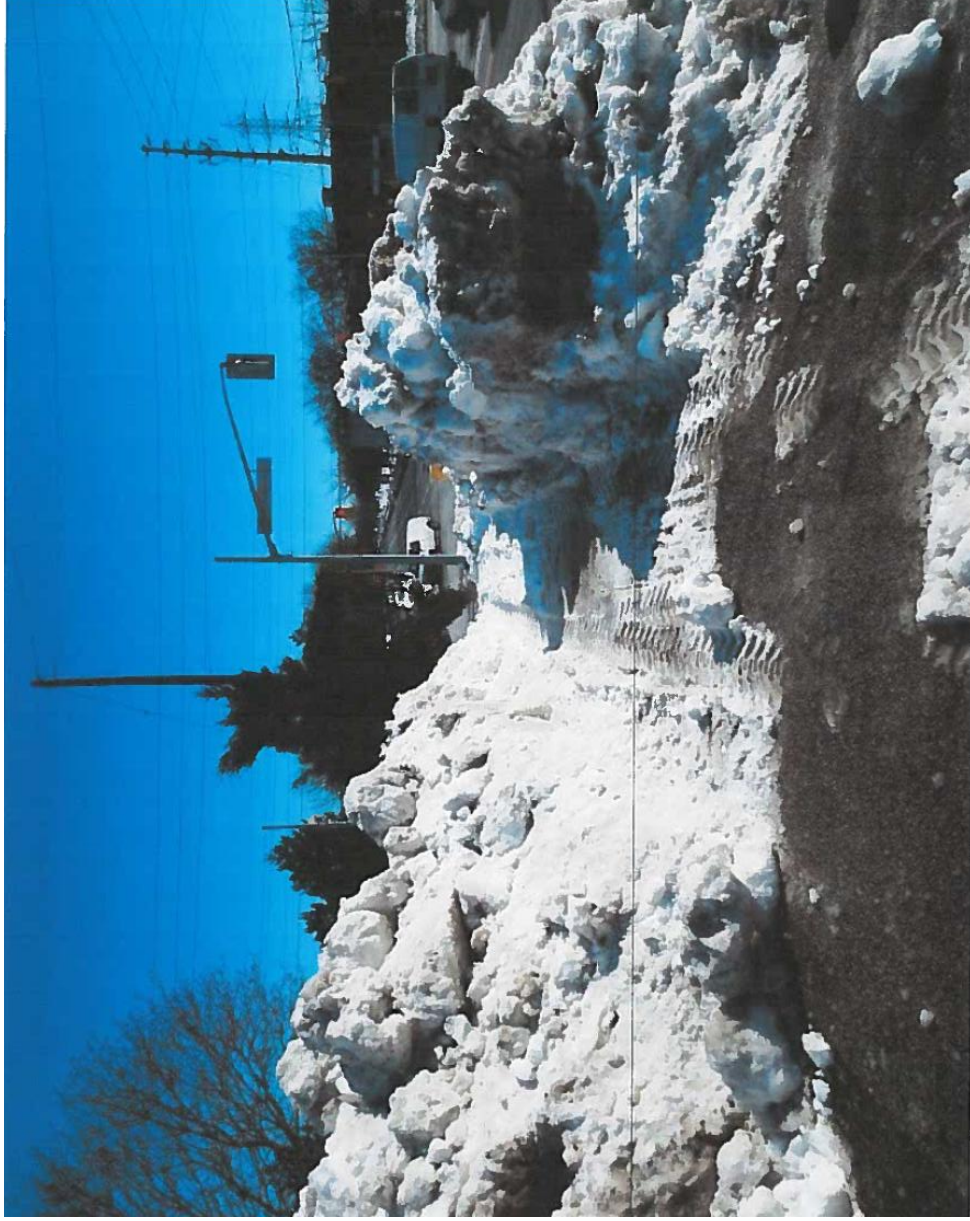
- Estimate approximately \$2.5M to \$4M annually
- Require one driveway unit for each local road plowing unit (currently 43 units)
- Additional units required to address primary and secondary roads
- May need to increase number of local road plowing units (windrow clearing slows local road plowing efforts)

# Windrow Impacts on Wide Streets and Adjacent to Intersections

- Windrow volumes for multi-lane roads significantly greater than local roads (Raymerville, Willowbrook, Carlton, etc.)
- First one or two driveways inside subdivisions adjacent to Regional roads receive increased volume of windrow

**(Currently no program or best practices to address these issues)**

# Windrow at Intersection of Two Arterial Roads



# Existing Seniors Windrow Program

## Service Standards

- 8 units clearing approximately 2,200 driveways
- At least one car width cleared
- Target service level to clear windrows within 8 hours of road plowing

## Customer Expectations

- Windrow cleared immediately following local road plowing
- Full width of driveway cleared
- Sidewalk windrow cleared as well
- Consistent service for homes fronting Regional roads



# Typical Seniors Driveway



# Option to Amend Current Program

**Current windrow assistance program does not recognize nor address seniors needs**

- **Free service that seniors register for whether required or not**
- **Service does not provide assistance for entire driveway, walkways, etc**
- **General dissatisfaction with level of service provided**

## Option to Amend Current Program

Seniors and disabled homeowners to manage individual snow clearing requirements.

- Homeowner hires their own contractor independent of the City
- Service may be geared for individual needs (i.e. Entire driveway, windrow only, etc.)
- City may offer seasonal rebate of up to \$70 per household to those homeowners that have hired contractor to provide service



## Eligibility for Financial Rebate

To qualify for this program

- all individuals residing in the household must be 60 years or older (proof of age is required) or younger than 12 years of age. If any members of the household are between the ages of 12 years and 60 years, a current and valid doctor's certificate confirming they are physically unable to clear snow must be provided.
- Homeowner must provide current, official documentation that shows total amount invoiced for winter snow removal for their primary residence, by May 31<sup>st</sup> of each year.

# Communications/Education Plan

## Objectives

- **Raise awareness among residents of the various road and sidewalk classifications within our road network**
- **Council approved service standards for winter maintenance operations for each road classification.**
- **Provide timely updates on winter maintenance operations throughout storm events**
- **Plan includes, but not limited to the following initiatives:**
  - **Markham Life advertisement**
  - **City Website**
  - **Councillors' newsletters & websites**
  - **Social Media – Facebook, Twitter, etc**
  - **Development Markham Application for winter maintenance links**
  - **Publications & PSAs**
  - **Poster Campaign (libraries, community centres, etc.)**
  - **EcoMedia Bins**

**Thank you**