

Subject: Review of Proposed City Wide Snow Windrow Service**Purpose**

This briefing note provides an overview of work undertaken by staff regarding City wide snow windrow clearing program. Impacts considered relate to customer service, operational and the financial changes needed to meet service levels. A windrow is the snow remaining at the end of a driveway after the road snow plowing has been completed.

Background

Winter Operations Workshops have been held in each Council term over the past 3 terms to consider options to improve service levels including consideration of a City-wide snow windrow clearing program. The last workshop was undertaken in 2015.

In a September 20, 2013 report to General Committee, entitled 'Winter Operations Service Standards Review', Council approved improvements to the current program regarding rear lane snow plowing to accommodate growth in any given budget year. A City wide windrow service level was presented but was not approved by Council primarily due to the tax rate impact associated with the implementing windrow removal. The existing 'Windrow' removal program was further supported by Council.

Discussion**Options Considered**

Operations staff contacted both the Cities of Toronto and Vaughan to review programs currently in place. Staff chose to further explore the City of Vaughan model for review due to its similarities to Markham, (geographic area, population, housing and infrastructure built form, traffic patterns and climate). Windrow clearing equipment only removes the windrows from single car or half of double car driveways.

City of Vaughan Model

The City of Vaughan's service level requires additional contracted equipment hired exclusively for the purpose of clearing windrows at the ends of driveways. Generally, an additional loader or tractor is assigned to the same route as each of the primary road clearing units. They follow behind and clear the end of each driveway as the road is cleared. This slows down the road plowing requiring additional resources to meet service levels.

Markham's current service delivery model requires 44 local road plows. In order to implement the Vaughan model, this number would increase to 110 hired units.

As the windrow clearing slows down the road plows, the number of plows is required to increase. The proposed program requires two local road plow units which clear the windrows as they plow. Two route machines operate in tandem, the first plowing the centre of the road and the second plowing to the curb and removing the driveway windrow at the same time. Additionally, plow route lengths are reduced from 26 lineal kilometres to 20 to accommodate slower operating speeds in order to meet a 12-16 hour plow window while removing windrows increasing the overall equipment complement. Based on the Vaughan model, the additional cost to undertake City-wide windrow removal would be approximately 4.5M annually.

Financial Considerations

Markham's 2018 Winter Maintenance Budget based on current service levels (5 full network plows):

	Stand By	Operating	Total Budget
Equipment	\$ 2,165,388	\$ 3,334,111	\$ 5,499,499
Sidewalks	\$ 629,145	\$ 1,853,514	\$ 2,482,659
Salt & Other*	N/A	N/A	\$ 1,719,703
Total	\$ 2,794,533	\$ 5,187,625	\$ 9,701,861

* other includes sand, calcium, mobile radio air time, snow hauling Main Streets

Considerations/Implications:**1) Customer Service Considerations**

It is thought that implementing a snow windrow removal program in Markham would be well received by residents. Following implementation in Vaughan, complaints to the city have more than doubled during winter storms. Issues raised by residents include the following:

- Time required to clear windrows (staff advised that original service was within approx. 3 to 4 hours following road plowing. This was modified to 'at same time' service provision which is included in these estimates for service delivery model). Vaughan reports an estimated 200 hours of increased idling time tied to 'at same time' service provision.
- Full width of driveway not completely opened up (after repeated plowing, space is compromised)
- Complaints regarding relatively small amounts of snow from windrow left in the driveway (Vaughan advised that in order to provide timely response to many of the concerns raised, the City's operations staff are forced to dispatch additional in-house equipment to address some of these problems).
- Other issues related to the program include parked cars blocking access and sidewalk windrow removal requests increased.

2) Limited snow storage

The narrow lot frontages on wide corners severely restricts snow storage areas between driveways which would make it impractical to clear the entire single driveway without specialized equipment to possibly dump the snow at open boulevard areas along the street, or alternatively load and haul snow at additional expense. The reasonable solution would be to only clear approximately 75% of the single driveway opening and use the remaining space for storage. Some homeowners may not consider this an equitable solution considering others on the street may receive a different service level (single car lane). In addition, obstructions caused by vehicles parked on the street may severely restrict an equipment operator's ability to clear windrows and/or further reduce snow storage areas.

3) Damage to 'private' property

Many homeowners have invested in landscape features within the boulevard area including patterned concrete, unit pavers, and driveway borders. Even though they are advised not to do so and if the City needs to do repair work on our boulevard, the homeowner would pay to restore. There is potential for damage to these types of landscape features when clearing windrows from the ends of private residential driveways.

4) Equipment Storage

Current contracts for local road plowing don't allow for equipment storage at City facilities due to lack of space provided by the City. Cost to rent property to house existing local road plow units is contained in

prices bid. In order to accommodate equipment and quickly load salt, a second public works facility in the east end of the City would need to be in place as per the Operations Facility Master Plan.

- 5) **Managing Public Expectations:** A multi-faceted communication strategy would need to be implemented to communicate service levels to the public so that they understand when windrows will be cleared (full width on a single loading driveway or half on a double driveway) and that some residual snow will remain. Some residents expect faster service and don't clearly understand Council approved service levels.
- 6) **Customer Complaints:** Significant increase in customer complaints following implementation of City wide windrow clearing program in Vaughan. The City of Markham receives approximately 100 complaints following a typical storm regarding its current windrow removal assistance program of 4,100 applicants. The number of complaints will significantly increase if the program is available to all residents.
- 7) **Service Not Available to All:** As the City continues to build intensified development, more residents will reside in high-rise and rear lane subdivisions, i.e., Langstaff, Markham Centre, York Downs and the Future Urban Area. As the population increases in these areas, the number of residents who will not benefit from this service will increase.

Timing of Implementation

The City could not proceed with service level changes until a new East Yard is operational with salt and snow storage and vehicle assembly.

Any proposed windrow clearing program would require further staff review of financial implications of a potential model(s). A planning cycle of approximately 18 months is required prior to implementation.

Implementation of a City wide program would require preparation of a tender document and completion of the bid analysis and contract award process in order to provide bidders with a reasonable amount of time to purchase required equipment.

In addition, there are existing contracts for local road plowing that include both equipment standby and windrow clearing services for seniors and disabled persons. Purchasing and Operations staff will have to re-visit the contracts to explore options to negotiate changes in advance of any tender awards for City wide windrow clearing services.

Key Messages

- The 2013 report to General Committee, entitled 'Winter Operations Service Standards Review' did not receive approval primarily due to the tax rate impact associated with the implementing windrow removal.
- The City offers Windrow Removal Assistance Program to disabled and senior residents who meet the program requirement.
- The combined costs associated with the city wide windrow clearing and snow removal requirements total approximately \$4,438,400 per year.
- The City's East Operations facility needs to be operational before any service changes occur. The process to acquire and construct a new east facility will take 3-5 years.
- The number of complaints will significantly increase if the program is available to all residents.

Attachments

- N/A

Contact Person:	Alice Lam, Manager, Roads Operations		
Prepared By:	Alice Lam, Manager, Roads Operations	Department:	Operations
Date Finalized:	November 20, 2018		
Approved By:	Morgan Jones, Director, Operations Brenda Librecz, Commissioner, Community & Fire Services Commission		
Distributed To:	Mayor & Council		

Template last revised: 2018-Oct-10 (ST)