

Balancing Considerations for Snow and Ice Control

Ensuring the **safety** and **livability** of the winter mobility network is the primary focus when balancing the considerations presented below. The Status Quo (Current State) and proposed (Future State) service level scenarios are presented.

Each consideration has the following components:

- Speed: the speed of service (i.e. how quickly a neighbourhood can be completed)
- Duration: the total amount of time for the service (i.e. how long it takes to clear the whole city)
- Quality: the level of quality that the resident will experience
- Impact: the overall impact of the choice on residents

	Status Quo Service Level (Current State)	Proposed Service Level (Future State)
Residential Blading	<p><u>Maintain 5cm Snowpack</u></p> <ul style="list-style-type: none"> • <u>Speed</u>: Operators slow down and may perform multiple passes to ensure a 5cm snowpack. • <u>Duration</u>: Overall time required to clear all residential streets remains the same, and will increase as the city grows. • <u>Quality</u>: Quality of work is high once the blading is completed; fast temperature changes can have a large impact, including icing, ruts or a collapse of the snowpack. • <u>Impact</u>: Residents may have a negative experience between blading cycles, as the policy dictates that a minimum 5cm 	<p><u>Optimize Snowpack (no snowpack min/max)</u></p> <ul style="list-style-type: none"> • <u>Speed</u>: Speed of residential blading will increase, as operators will be focusing more on improving the overall road condition and less on the snowpack depth. • <u>Duration</u>: Overall time required to clear all residential streets will decrease; service levels can be maintained as the city grows. • <u>Quality</u>: Quality of work is higher, as operators will have increased flexibility to optimize snowpack based on the conditions of individual road segments. • <u>Impact</u>: Residents will see more frequent service and improved accessibility throughout residential

Attachment 4

	<p>snowpack be present prior to a cycle being initiated.</p>	<p>areas. When combined with a parking ban, the overall quality of winter roads in residential areas would noticeably increase.</p>
<p>Parking Ban</p>	<p><u>No residential parking ban</u></p> <ul style="list-style-type: none"> ● <u>Speed</u>: Operators significantly slow down to move around parked vehicles. ● <u>Duration</u>: Overall time required to clear all residential streets remains the same, and will increase as the city grows. ● <u>Quality</u>: Quality of work is lower, vehicles may still be “plowed in,” despite the best efforts of operators. ● <u>Impact</u>: Residents don’t have to move their vehicles, but experience a lower quality service as a result. 	<p><u>Residential parking ban</u></p> <ul style="list-style-type: none"> ● <u>Speed</u>: Speed of residential blading will increase. ● <u>Duration</u>: Overall time required to clear all residential streets will decrease; service levels can be maintained as the city grows. ● <u>Quality</u>: Quality of work is higher, as operators can plow curb-to-curb. ● <u>Impact</u>: Residents will have to move their vehicles when the ban is called - and may experience increased ticketing/towing if their vehicle is not moved - but will experience improved road conditions and usability. Windrows may be higher, as operators are able to more effectively clear driving lanes.
	<p><u>Full removal once snowpack reaches 10cm</u></p> <ul style="list-style-type: none"> ● <u>Speed</u>: Lower frequency of service results in slower clearing and larger volumes of snow to be removed from each cul-de-sac. ● <u>Duration</u>: Overall time required to clear all culs-de-sac remains the same, and will increase as the city 	<p><u>Regular scheduled removal (if required) & full removal after large snow event as required</u></p> <ul style="list-style-type: none"> ● <u>Speed</u>: Increase in frequency of service will allow for faster clearing and a lower volume of snow to be removed from each cul-de-sac. ● <u>Duration</u>: Overall time required to clear all culs-de-sac will decrease; service levels can be maintained as the city
<p>Culs-de-sac</p>		

	<p>grows.</p> <ul style="list-style-type: none">● <u>Quality</u>: Quality is generally viewed as acceptable when culs-de-sac are cleared; quality is viewed as unacceptable when clearing does not occur.● <u>Impact</u>: Residents experience a disconnect in service quality between culs-de-sac and the rest of the residential road network	<p>grows.</p> <ul style="list-style-type: none">● <u>Quality</u>: Overall quality is increased due to reduced snow buildup between service● <u>Impact</u>: Residents experience a reduced disconnect in service quality between culs-de-sac and the rest of the residential road network.
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