CITY OF GLOVERSVILLE, DEPARTMENT OF PUBLIC WORKS

Snow and Ice Control Strategies

The City of Gloversville snow and ice control efforts promote safe vehicular travel during the winter months. The City always attempts safe passage on all city streets. However, keep in mind that each snowfall presents different conditions that impact the snow and ice removal process, such as the rate and accumulation of snowfall, moisture content, temperature, time of day or night, wind direction and speed and the duration of the storm, with the result that no two storms are ever identical.

The City of Gloversville is responsible for snow and ice control for 59.44 miles of streets and a total of 118.82 lane miles. That being stated, the city first responds to all main roads, hills, and secondary main roads which must be kept passable to provide a safe transportation network to the largest volume of people.

The City of Gloversville averages 77 inches of snow per season. Some events are just a trace and can be handled by Public Works staff in a few hours. Other events can bring over a foot of snow and last for a duration of 24-hours or more. Certain priorities are followed as the city attacks any snow and ice event in an organized and strategic manner.

<u>Snow routes priorities:</u>

- Priority 1: Plow Mains, Secondary Mains, Hills – Frequent salting.
- Priority 2: Plow Residential Side Streets – Reduced salting except for hills and intersections.
- Priority 3: Plow City-owned Parking Lots and begin street intersection radius clearing and post storm clean-up plowing attempts with passes made to open/clear streets in locations in which parked cars have moved.
- Priority 4: Haul heavy snow volume accumulation away from congested areas such as North and South Main Street, the Downtown Commercial and Business District and certain heavy traffic intersections.

The above level of priorities will allow us to provide a safe transportation network to the largest volume of people as quickly as possible depending on storm conditions and duration and will enable us to have streets and critical parking lots plowed to nearly full width (except areas with parked cars which may get cleared later) within a reasonable amount of time after the snow has quit falling.

In the event of heavy snowstorms, when the City plows residential side streets, residents are asked to move their cars parked off the street to give plow trucks additional room to plow.

Section 284-53 of the City of Gloversville Code addresses winter parking on City streets. This section of the City code states: "From the 30th day of November at 11:00 pm to the following 31st day of March at 12:00 midnight, no person shall park a vehicle between the hours of 11:00 p.m. and 6:00 a.m. upon any public street in the City of Gloversville."
Cars will be ticketed for violation and towed, if necessary, during and after snow events.
The winter parking ban on City streets is utilized by Public Works crews to plow the entire width of the street, curb to curb, without the obstruction of parked cars and to haul heavy snow volumes out of the Downtown Gloversville Commercial District.

When the City does plow residential streets:

- The goal is to make residential streets passable during any active snow event.
- Plow trucks may not plow down to bare pavement on residential side streets.
- Residential streets are not completely plowed the entire curb-to-curb width during active snow events due the high number of parked cars on the parking side of many Gloversville streets. We always plow to the curb on the non-parking travel lane of residential streets and will attempt to plow the entire width of the street, curb to curb, without the obstruction of parked cars during the overnight parking ban from 11:00 p.m. to 6:00 a.m.

Snow and Ice Conditions:

- Freezing rain, sleet, black ice, and freeze/thaw. These types of events are based on changing weather conditions. The required ice control and salting response is based on current and forecasted conditions.

- Snowfall of less than 2". General snow plowing may not be necessary and normal ice control and salting procedures may be adequate to produce safe winter driving conditions. The plowing of streets may be necessary if a series of less than 2" snowfalls over time has caused a buildup of snow on city streets.

- Snowfall of 2" to 6". Typically, ice control snow removal begins as soon as practical at the beginning of any snowfall depending on the timing of the snowfall event. Every effort is made to provide motorists with safe winter driving conditions prior to critical time periods. The most critical time periods are weekday morning and early evening peak traffic hours. The City will attempt to remove ice and snow from the City main collector and priority streets prior to increased traffic periods. Normally, high traffic volume main and priority streets are plowed first. Once the main streets and priority areas are plowed and opened, the remaining streets in the residential areas will be plowed and ice control measures applied.

- Snowfall greater than 6". Each plow route has a system of main, priority, and secondary streets that link neighborhoods and facilities such as schools and emergency services. Depending upon the duration of any snowfall event, it may be necessary to continually clear priority streets more frequently than residential streets to assure public safety. Once snowfall has ceased, priority streets within each route will be cleared before snow removal begins on secondary streets. During heavy snow fall events on residential side

streets, ice control measures will follow once streets are plowed. Salt is not very effective during heavy snow fall on side streets due to the low traffic volume needed to help activate the melting agents in road salt. Salt will be applied on side streets when the snowfall has slowed or stopped and when conditions exist that will make it effective or necessary.

City of Gloversville Road Salt Reduction Strategy:

Why? Road salt use in the City of Gloversville is necessary to ensure safe travel during and after winter storm events, but all that salt must go somewhere. After road salt dissolves, it gets carried away via runoff and deposited into both surface water (such as the Cayadutta Creek) and the groundwater under our feet. Also, the cost of road salt continues to climb.
Consider how easily salt can corrode your car. Unsurprisingly, it is also a problem for the surrounding environment - so much that in 2010, Canada listed road salt as a known toxin and placed new guidelines on its use. The States of Vermont, Massachusetts and New York have followed suit within the past few years. Excessive salt use comes at a significant environmental and economic cost and is getting to be a bigger problem than ever.
Data from long-term studies of watersheds in the State of New York, in which a group of scientists tracked salt levels from 1952 to 1998 found that concentrations of sodium and chloride increased by 130 and 243 percent in several locations spread across the state; with significant annual increases and road salting to blame for an estimated 91 percent of sodium chloride in the State of New York watersheds.
Nationwide, over 40% of urban lakes, rivers and streams have chloride levels that exceed safe guidelines for aquatic life, largely because of road salt.

In addition, there is a correlation between salt use and the damage to trees and vegetation. Salt deposits unto the front terrace can stunt the growth of certain trees, creates poor soil conditions for optimum tree health and can – in extreme cases – advance decay within the root systems of large mature trees, thereby creating a hazard and premature loss of tree canopy. Salt spray on heavy traveled roads can travel as far as 500 feet in concentrations high enough to kill vegetation and create poor soil conditions. Road salt harms and shortens the lifespan of certain species of trees and places limitations on what tree species can survive in a city environment.

How? The City of Gloversville has a strategy to both reduce the use of road salt and still provide safe passage of vehicle traffic through our city.
We reduce the use of road salt as follows:

- Limit the use of road salt on residential side streets. Streets with low traffic volumes may remain snow covered longer. Salt is not effective during heavy snow fall on side streets due to the low traffic volume needed to help activate the melting agents in road salt. Salt will be applied on side streets when the snowfall has stopped and when conditions exist that will make it effective or necessary.

- We will not needlessly apply excessive road salt on side streets with low vehicle traffic and during the course of heavy active snow fall as it will get plowed out of the streets and unto the terrace, thereby squandering the use of the costly resource. However, salt is always applied within approximately 100 feet of all side street intersections and on all hills when side streets are plowed to ensure safety.
- We will not needlessly apply road salt on residential side streets when the air temperature is below 15 degrees as the salt will lose its effectiveness and may not activate its melting properties because of the low temperature.