**COMPREHENSIVE** 

# SNOW&ICE CONTROL PLAN



Public Works Department Streets Operations Division

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# I. Plan Overview

A Snow and Ice Control Plan (SICP) is necessary to make a clear statement of the intent for response, to define roles and responsibilities, to define communication plans and notification procedures and to document operational guidelines. The SICP is a plan prepared at the direction of the Public Works Director (Director), approved by the City Attorney, adopted by the City Manager, and presented to the elected City Council, collectively referred to as "Executive Leadership". The Plan is a living document subject to changes and revisions and will be presented to executive leadership every *three years;* unless major changes or revisions are recommended and require approval sooner.

### A. <u>Acknowledgment</u>

Snow and ice control may appear simple to the motoring public but requires databased decision making, scientific understanding, strategic planning, sound judgment and most of all, qualified snow fighters. Many things depend on snow and ice control such as public safety, education, commerce and in some cases life or death.

Snow and ice control should not be taken lightly as with all other emergency services; it is a vital role in community. Snow and ice control is particularly expensive and therefore response must be calculated and efficient. The return on investment is truly only recognized for a brief period, until such time the adverse weather effects are no longer visible.

Snow and ice control is not intended to provide convenience to the road user. The City of Littleton does not control commuter behavior or the condition or selection of transportation; therefore, response is not planned and executed to accommodate commuters who are not prepared for winter conditions. Commuting during winter weather requires additional caution and adjusting commuting speeds. This may include delaying travel altogether or planning for longer travel times; delays should be anticipated regardless of City provided control measures.

### B. <u>Snow & Ice Control Objectives</u>

Despite the infrequency of storms, Public Works Streets Operations Division (Division) must be prepared for minor and major snow and ice events from October through May. The Division is responsible for servicing approximately 351 total lane miles of roadway, of which 272 lane miles is serviced during snow events, extending over a nearly 14 square mile area.

Snow and ice control response is comprised of various pieces of equipment, task assignments, materials, technology systems and a plan to achieve the program objectives. Below are the primary objectives for snow and ice control:

- > Expedite snow and ice control response.
- Assist emergency services throughout the city.
- Maintain a reasonable flow of traffic throughout the city on priority roadways.
- Ensure each residential community has access to a plowed minor and major thoroughfare once storm intensity subsides.
- Deploy the most efficient and effective snow and ice control methods in relation to available resources.

# II. Plan Purpose

This Plan has been developed to provide the framework for City of Littleton and partnering agencies and contractors to control snow and ice impacts on roadways within the jurisdictional limits and authority of the City of Littleton. This plan unifies-the efforts of public and private organizations for a comprehensive and effective approach to control the impacts of snow and ice on public roadways.

The SICP is designed to provide guidance for operational personnel, to provide City staff and community members an understanding of the planning and response strategies utilized in snow and ice control activities specific to the City of Littleton. The city will provide snow and ice control on city-maintained roadways only, unless an intergovernmental agreement (IGA) or a memorandum of understanding (MOU) is approved by the city. The city will provide such control as described in this plan with the acknowledgment that actual operations may deviate from the written plan to respond to real-time conditions that may not otherwise be covered in this plan.

The purpose for the SICP is to formalize the procedures and policies maximizing public safety during winter storms and to have transparency and uniformity of the services provided during snow and ice control. This plan will provide written documentation for:

- Defined levels of service (LOS)
- Priorities of service (POS)
- Service timing strategy (STS)
- Storm characterization definitions (SCD)
- Key performance indicators (KPI)
- Defined roles and responsibilities
- Response prediction & modeling (RPM)
- Operational procedures and limitations

Data collection and reporting

# III. Plan Principles

# A. Level of Service (LOS)

Over recent decades, snow and ice control practices and technologies have advanced significantly across the United States. These advancements have led to higher service expectations from the public, resulting in increased demands on agency budgets, infrastructure maintenance, and compliance with environmental regulations. At the same time, growing traffic volumes, urban expansion, and longer commuter distances have intensified the need for effective winter roadway management.

The time required to provide safe and passable roadway conditions during winter weather events varies based on circumstances unique to each storm. Service strategies and levels of response may be adjusted as conditions evolve and are influenced by factors including:

- Storm intensity and total accumulation
- Street classification
- > Duration of the storm event
- Snow type (light/dry or heavy/wet)
- ➤ Temperatures before, during, and after precipitation
- Wind speeds and drifting potential
- Traffic conditions and volumes
- > Time of day and peak travel periods
- Availability of personnel, equipment, and materials

Level of Service in the context of snow and ice control refers to the standard to which streets are maintained for safe and passable travel during and after winter weather events. Service levels are established to balance public safety, mobility, and efficient use of available resources, recognizing that conditions may vary during a storm.

Due to variations in traffic volumes, number of travel lanes, and roadway length, certain corridors require more time and effort to service than others. As a result, higher-priority streets typically demand continuous attention and extended effort to achieve and sustain the desired LOS.

The time required to provide initial service to a roadway segment, along with the approximate time between subsequent passes, is referred to as cycle time. While a roadway may achieve the targeted LOS immediately following treatment, conditions often deteriorate between service cycles until snowfall subsides. This cycle of improvement and deterioration is the core operational challenge of snow and ice control. Maintaining LOS on high-priority streets necessitates frequent treatment, which may delay service to lower-priority streets until storm conditions stabilize and resources can be redirected.

The LOS rating, LOS definitions and are included in the priority graphic below.

# B. Priorities of Service (POS)

During adverse weather conditions emergency situations are given top priority and the snow fighters will partner with law enforcement, fire and medical providers regarding accident or medical emergencies.

### **Considerations:**

- ➤ To assist Police, Fire and Emergency Medical Services in fulfilling their duties.
- Maintain access routes to hospitals, emergency facilities and schools.
- To provide reasonable safe traveling conditions on higher traffic volume roads.
- Address known trouble spots, such as bridge decks, steep grades, sharp curves, signal controlled intersections, and on/off ramps.
- Normalize operations (CDL drivers requiring rest periods)
- Reduce economic losses that can result from workers and business patrons being unable to access commercial properties.
- Reduce the impact on availability of resources.

The city roadway network has been divided into four priority categories that are based on qualifying factors. These categories are the order in which snow and ice control services will be provided and are the basis for routing sequences and material application. The categories and definition criteria are below in order of response priority:

	Classification Criteria	Service Timing and Ending Conditions
Priority 1	ADT >1,000  2 or more lanes in each direction  Serves emergency service routes, hospitals	Service begins at snowfall onset and continues until bare pavement and drying conditions are achieved, typically occurs within 12 hours after snowfall ends.
Priority 2	ADT 500 – 1,000  Serves transit routes, residential collectors	Service begins once Priority 1 routes receive initial treatment. During heavy snowfall, these streets get fewer passes to maintain focus on higher-priority areas. Clearing loose snow from driving lanes and achieving bare pavement at key maneuvering areas—such as intersections, hills, and curves typically occurs within 24 hours after snowfall ends.
Priority 3	Hills, sharp curves, high density housing, has crash history or sight distance challenges	Service begins after higher priority streets have received initial service. Ending condition is the same as priority 2 streets and typically occurs within 36 hours of snowfall ending.
Priority 4	Remaining residential streets not included in other priorities	Service will be determined by staff when the city receives 8 inches or more snow accumulation on pavement surfaces and will begin within 72 hours of completing priority 1-3 goals as resources allow. One plowing pass will be made down the middle of each street to deposit equal amounts of snow from each side of the plow.

# C. Service Timing Strategy (STS)

There is an increasing perception among the public that the amount of equipment and materials seen on the roads is the indication of good service, regardless of whether it yields a positive return or if it is efficient and effective.

Service timing and resource reliability is critical. Workforce productivity hinges on several factors; specifically, as it relates to route miles, switching between plowing priorities, and response timing in relation to storm onset and shift changes. Other factors that impact productivity include emergencies, equipment issues or staff shortages.

Deicer has optimal working parameters such as temperature, free moisture, solar heating, and traffic. The Division uses a service timing methodology that accounts for all relevant factors to ensure the most effective response, based on actual need rather than perception.

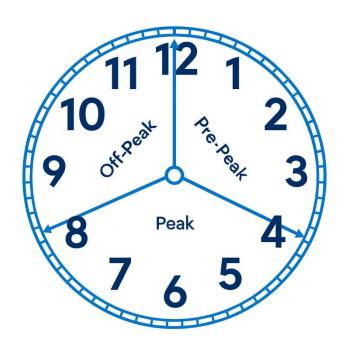
# Off-peak service timing

(8:30 thru 12:00 AM & PM)

Off-peak is the time between rush periods when traffic is typically less congested. This time is the best to conduct snow plowing, placing very little material to prevent unnecessary waste of expensive deicers. Reduced congestion improves cycle time by reducing stop and go plowing. Less congestion is also safer for commuters and operators when moving snow across the entire roadway width.

### **Pre-peak service timing**

(12:00 thru 3:30 AM & PM)
Pre-peak Is the time just prior to rush periods when traffic begins to Increase.
This Is the best time to apply deicers. Traffic increases the effectiveness of deicers by generating friction heat, producing crushing action that activates deicers quicker, and tracking of deicing materials increasing the total treated area.



### Peak hour service timing

(3:30 thru 8:30 AM & PM)

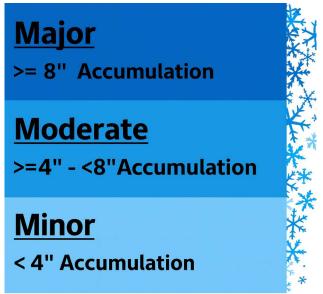
Peak hour is the rush period. Crews try to get off the road so traffic can flow without the disruption of plowing activities. Traffic congestion significantly reduces snow and ice control efforts, plow drivers inevitably sit in congestion unable to do their job effectively. This time Is better served taking breaks, providing updates, servicing and fueling equipment and preparing for the next off-peak period. The focus Is being ready for emergency response needs. It should be noted that the public will not see as much equipment on the road, however the efforts from off-peak and pre-peak servicing should be better realized. During this break period, plow drivers remain available to address urgent needs for public safety.

### D. Storm Characterization

Snowstorms are among the city's most difficult conditions to address. The combination of heavy snow or ice accumulation, and extreme cold can disrupt modern civilization, closing roads and airports, creating power outages, and causing property damage.

Planning for snow and ice control operations is dependent on the forecast and real time conditions. Because of the variables encountered with each storm, the operational requirements will differ for each event. However, operational

guidelines have been established for typical conditions. To inform leadership staff in delayed start and city facility closure decisions and operational response communications to city staff and the public, three storm classifications have been identified.



# E. Key Performance Indicators (KP])

Performance measures for snow and ice control are challenging due to the multitude of variables for each event and differential effects in distinct regions of the city. Developing meaningful data for snow and ice control has produced a variety of questions and responses with differing goals and objectives.

Industry best-practices have been examined to understand current trends and issues in order to develop a process that can be used for performance measurement, that is sensitive to organizational and public needs as well as environmental concerns.

Currently the Streets Operations Division (Division) reports on the following:

- Cost per lane mile (event & annually)
- Hours of operation per event and annually
- Cost per storm type (characterization)
- Average servicing time spent for each road priority
- Total plow miles for each event and each priority level
- Number of Snow response events and total cost annually
- Primary KPI for snow and ice control is based on service level priority for typical snowstorms of six inches of accumulation or less as follows.
- Priority 1 streets: Bare pavement within 12 hours of snowfall ending.

- Priority 2 streets: Cleared of loose snow and intersections and achieving bare pavement at key maneuvering areas within 24 hours of snowfall ending.
- Priority 3 streets: Cleared of loose snow and intersections and achieving bare pavement at key maneuvering areas within 36 hours of snowfall ending.
- Priority 4 streets: One pass to clear loose snow within 72 hours of completion of priority 1-3 service commitments.

# F. Roles and Responsibilities

The primary responsibility and authority for implementing the SICP belongs to the Public Works Director (Director) and their authorized designee. During a winter storm the Director or designee may call on any Public Works resource to assist in snow and ice control. The Division is responsible for snow and ice control response management and resource assignment.

The Street Operations Manager (Manager) provides directives, resources, and strategies for snow operations, while the Snow Supervisors (Supervisors) oversee the response effort during each event. Snow drivers operate specialized equipment to respond effectively and efficiently to winter storms. They also provide Supervisors with valuable, real-time updates on traffic, pavement, and weather conditions to support informed operational decisions.

The 24-hour nature of snow and ice control operations requires supervisors to rotate the operational oversight through varying working hours. Supervisors are responsible for snow teams consisting of staff from Streets, Traffic, and Utilities divisions and will provide snow teams with real-time operations guidance throughout winter storm events.

Traffic Operations and Utilities Operations division staff will be assigned to a weekly rotational schedule to cover snow routes. Staff rotation assignments will be shared with impacted staff prior to the beginning of winter. This allows drivers to plan ahead and identify needs to trade weeks or days with other drivers for vacation leave. Drivers are expected to find their own coverage when they plan to use leave and must notify their supervisor, the Manager, both Supervisors, and the covering driver by email at least seven days in advance of any change. In the event of a family emergency or illness of any driver, the Manager and Supervisors will work with other department supervisors to find sufficient coverage.

The Fleet division will be activated for storm support as needed. Their primary duties are to support equipment, vehicle and machinery repair needs.

While the city will utilize its own resources for most storms, some storms will be larger than the city's staff or equipment can maintain. Therefore, during significant winter storm events or a declared State-of-Emergency, the city may need to utilize private contractors. As a contingency, the Purchasing Department has emergency purchasing

procedures and policies in place to assist the Division in procuring vendors.

The city is dedicated to safely maintaining priority roadways during winter storm events. The operational intent is to create acceptable winter driving conditions for commuters who operate their vehicles in a manner that is consistent with safe winter driving behavior with vehicles that are properly equipped for winter driving. During a winter storm event, staff will strive to maintain streets in a reasonably safe condition that is practical under the circumstances. Snow and ice control operations will only be conducted when plowing conditions do not endanger the safety of city employees or the public at large.

Many factors such as limited visibility may affect snow and ice control operations. Employee safety is the primary factor in determining whether operations continue. If current or anticipated conditions suggest that response efforts would be ineffective or create unnecessary risk to city staff, operations will be delayed or suspended. If the Director or their designee believes that there is imminent threat to the health and safety of plow drivers, the Director has the responsibility to stop the operations until a safer solution or action can be initiated.

Snow and ice control operations may cause property damage despite diligence by plow operators. The majority of snow removal damage occurs within city right-of-way. City right-of-way is to provide room for utilities, sidewalks, snow storage, and other authorized city and public uses. City crews will strive to minimize damage within city right-of-way. They will also attempt to minimize the snow being pushed onto private property, within intersections, over storm drains, and onto previously plowed public sidewalks. When storm severity is such that piling of snow occurs in these locations, the Manager will schedule cleanup efforts as soon as possible after storm, however, this operation may be delayed or canceled dependent on weather conditions and urgent response to other department responsibilities.

# G. Response Prediction and Forecasting

During the stated winter season, the Manager will monitor various meteorology sources for strategic planning purposes. Based on actual storm conditions and storm forecasts, the Manager will communicate with the Director regarding storm operations plans and road conditions.

The Manager will issue a forecasted snow response plan, 24-hours prior to the onset of any forecasted snow event. The snow response plan will be revised with real time updates at the beginning of response deployment and throughout the snow event. For winter storms that exceed a 24-hour period, updates will be provided every 12-hours concurrent with shift changes.

The forecasted snow response plan and real time updates will be communicated via email to the following offices (see Appendix A2 for template):

- > Public Works Director
- Public Works Deputy Director
- PIO Communications Department
- Police Department
- Facilities Manager
- Utilities Manager
- Grounds Manager
- City Engineer
- Inspections Supervisor
- Traffic Operations Manager
- Fleet Manager

Response plans and updates will at a minimum include the following info for each shift (see Appendix A3 for template):

- Date
- Crew responding and time
- On-call captain and Contact info
- Brief forecast/conditions

Normal business hours for operational divisions are from 7:30 a.m. to 4:00 p.m., Monday through Friday. The Division may be contacted through the administrative office during normal business hours at 303-795-3863. All citizen service requests, or alleged damage claims should be handled through this line during normal business hours. Customers may submit a request through our mobile app or online service request platform at any time:

Website/Mobile App: Visit our online reporting portal or download the mobile app from Google Play or the iTunes App Store by searching for https://seeclickfix.com

# IV. Snow and Ice Control Operations

### **Considerations of Operation**

- Public and employee safety
- Regulatory and legal requirements
- Measurable performance
- > Fiscal responsibility
- Resource availability

- Industry standards of practice
- Stakeholder and partnership alignment
- Economic vitality
- Environmental and sustainability impacts

# A. Snow and Ice Control Training

The Division provides internal training for snowplow drivers that will *assist staff* by increasing awareness and understanding for safety and professionalism and general snow operations. Annual training will focus on expanding knowledge of emerging trends while advancing the skill levels in performing snow and ice control. Training will provide the basic workings of the city's snow and ice control program; however, operators will gain proficiency and confidence through on-the-job practical experience.

The following guidelines shall be used when providing internal training:

- Training is mandatory for all new employees. Supervisors and/or Manager may recommend portions of this training for seasoned employees as needed to improve their performance and/or safety.
- > Training shall consist of a minimum of 16 hours.
- Understanding that each person is different, training may require content and subject matter variations to accommodate different learning styles. Supervisors must be confident that the employee can perform snow and ice control duties safely, effectively, and efficiently.

### Training consists of the following:

- Classroom time (presentation and computer-based training)
- > Driver training with a peer ride along
- Supervisor riding with and observing the employee (real event)

The training will have strict curriculum to address all the major functions associated with snow and ice control operations. Employees will be required to demonstrate their understanding of the curriculum to the degree that is satisfactory to the employee's direct supervisor. Operators are expected and will be held accountable to adherence of all applicable laws and regulations associated with State and Federal traffic law.

### Minimum training subject matter will include:

- Employee expectations and conduct
- Level of Service (LOS)
- Priorities of Service-(POS)

- Service timing strategy (STS)
- Key performance indicators (KPI)
- Response predictions and modeling
- Winter storm preparation
- Equipment readiness
- Snowplow operations
- Anti-icing/deicing operations
- Proper winter material usage
- Post storm activities
- Safety and accident reporting
- Budget overview
- > Time, vehicle and materials documentation

In addition to the mandatory internal training process, staff are encouraged to attend external conferences and training. This will help staff understand industry trends and advancements which encourage innovation and continuous improvement initiatives.

# B. <u>Snow and Ice Control Preparations</u>

### **Facility Readiness**

Public Works operations provide a wide array of response control measures, to include staging, storage, and repairs. All storage areas, equipment bays, and shop areas will be maintained to ensure safe access, efficient workflow, and timely deployment of resources. Deicing materials will be stockpiled and organized to support sustained response efforts in advance of winter months.

### **Equipment Readiness**

Vehicles used for snow and ice control are also used during other seasons to support the Division's other critical maintenance operations. Snow season readiness begins July through August with equipment inspections and repairs are scheduled for completion in advance of the first snow deployment of the season. Inspections and repairs are also performed during the snow season in collaboration with fleet maintenance to ensure safe and efficient operations and continuity of service. In addition, truck mounted material delivery systems are calibrated and checked for accuracy.

### **Dry Run**

In preparation for winter road maintenance, staff perform dry runs of their assigned routes. Operators drive their routes to identify opportunities to repair hazards such as

raised manhole covers, valve box lids, and low hanging utility cables or tree branches in advance of the first snow. Dry runs also allow operators to memorize railroad crossing, drainage dips, and traffic calming installations along their routes. Operators are expected to travel at maximum plowing speed of 35 mph or the posted speed limit, whichever is lower, during dry runs.

### **Snow fighter Appreciation Day**

Snow fighter appreciation day is a snow season kickoff event held by Public Works to acknowledge and appreciate the dedicated people that work long hours and make personal sacrifices to provide first-rate service to the community. To demonstrate this appreciation, executive leadership and all city departments will be invited. Operator training is held in conjunction with snow fighter appreciation day.

# C. Snow and Ice Control Response

### **Snow Shift Response**

All Public Works Operations employees are essential to snow and ice control and are required to be available to mobilize snow and ice control resources in accordance with this plan. City facility closures, delayed openings, and early releases for inclement weather do not apply to operational staff. Staff will be assigned to either A or B crew and their response timing will rotate with each storm. Most responses will be scheduled shifts; however, weather systems and storm probabilities can vary and may require staff being called back or called out. On-call for snow and ice control is scheduled and rotates weekly between crews during each snow season, which is defined as the 3rd Monday in October to the 2nd Monday in April. Generally, one Division member is on-call per the Public Works on-call policy. Snow staff may be put on notice and may be called back or called out when forecasts are uncertain and should remain generally available for snow response.

### **Call Back**

Call back is defined as staff being called to respond to snow and ice after they have left for their regular shift schedule but prior to 8:00 pm. This typically occurs when widespread melting snow refreezes across the roadway, causing hazardous driving conditions.

### **Call Out**

Call out is defined as staff being called to work between 8:00 pm and the start of their normally scheduled shift the following day, including weekends and holidays. This typically occurs when snow probabilities are low, forecasted accumulation amounts are such that deicing or plowing are not expected, or when a storm was not predicted, and conditions warrant deicing or plowing.

### **Scheduled Shift**

Scheduled shifts are pre-assigned work periods in which a snow team is designated to be on duty. Start times will be determined by forecast timing and snowfall probabilities. Most snow response will be in this manner.

Employees must have a minimum of eight (8) hours off duty between shifts; this may affect when they start or end their shift.

### **Call-Out Procedures**

Recognizing that each storm event is unique and poses different risk levels, the city must make decisions that are equitable and fiscally responsible. Additionally, it is vital that resources be utilized in such a way that they can be sustained and managed for any unforeseen changes that may arise. When the Division is aware of a forecasted storm, they must analyze the predictions and potential risks associated. This process is usually conducted until a conclusion can be made as to the severity and duration, and type of event that is forecast to occur.

This will provide the operating group a way to gauge what materials, equipment and staffing levels will be necessary to manage the forecasted event. Other considerations must include previous weather and road conditions; they can drastically affect the impacts of the forthcoming event. Since the greatest impact is made at the onset of the storm event and will ultimately dictate how road conditions can be maintained, the Division has developed procedures on how to respond with resources.

- ➤ Snow Watch Two crew members consisting of one Supervisor and one operator. Patrolling is used to monitor real time conditions and deal with isolated concerns. Snow patrol is also used when light rain/snow is present and further storm progression and response need is unknown.
- ➤ Partial Deployment Division staff are scheduled or called out when accumulations are expected to be light and storm intensity is such that service priorities and levels of service can be maintained with minimal resources.
- ➤ **Full Deployment** Full crew is scheduled or called out when forecasts call for periods of higher storm intensity or heavier snow accumulations and more resources are required to maintain service priorities and levels of service.

Manager and Supervisors will make every reasonable effort to notify drivers as soon as possible of scheduled shift start times, however, forecast uncertainty may not allow for prior notification.

Supervisors will inform subsequent shift drivers of their scheduled arrival time prior to the end of their current shift, when possible, to allow sufficient rest periods and mental preparations.

### **Plowing Techniques**

When conditions are favorable, streets are to be plowed and treated with deicing materials to achieve bare pavement for priority 1 streets, loose snow cleared from and intersections treated with deicer for priority 2 and 3 streets. However, this is challenging during events when temperatures remain below freezing. To reach bare pavement, operators must apply deicing materials at higher application rates to melt hard packed snow accumulations. This can be very expensive and have negative impacts on nearby waterways.

Snow plowing techniques will be determined in the field by the on-duty snow supervisor or designee and generally will include the following techniques:

### **General Plowing**

General plowing refers to plow trucks moving snow from the center of roadways to the outside edge. Roadways with curbs will have snow windrows placed in or adjacent to the flowline of the gutter. Roadways without curbs will have windrows placed immediately adjacent to the paved edge of the roadway. Plow drivers will take care not to cover attached sidewalks, although there may be times that snow falls onto adjacent walkways. It remains the property owner or agent's responsibility to remove snow from sidewalks along their property.

### **Echelon Plowing**

Echelon plowing is a strategic operation and requires great skill. Vehicle placement is crucial and requires advanced equipment coordination and knowledge of how the roadway drains. Echelon plowing is a technique where multiple snowplows operate side-by-side in a staggered formation covering all lanes of a multi-lane roadway. This method ensures the most efficient and fastest way to clear streets by moving snow from all lanes in a single pass. Road users are urged to not attempt overtaking plow vehicles while in any echelon or tandem plowing formation in accordance with House Bill 19-1265 (Tandem Snowplow Law).

### **Rover plowing**

Rover plowing is a single truck that does not have an assigned route and is available to assist route drivers with trouble spots, join echelon operations, respond to emergency service needs, or clear turn pockets and intersections.

### **Straight Plowing**

Straight plowing is a practice employed on residential streets when priority four

thresholds are met. Plow drivers will make one pass down the center of residential streets with the plow angled straight to deposit equal amounts of snow to each side of the blade attempting to not disproportionately deposit snow to either side of the street.

### **Material Applications**

The Division currently utilizes two types of materials, a liquid and a granular deicer. Material application equipment is calibrated to ensure material supplier recommended application rates are maintained.

### **Anti-Icing**

Anti-icing is the practice of applying ice melting liquid to dry pavement to prevent snowfall adhering to streets. The Division does not currently utilize materials appropriate for anti-icing. Significant infrastructure upgrades would be required to add anti-icing to the program.

# **Deicing**

Deicing is the application of ice melting materials to roadways once snow has bonded to the pavement. Deicing is performed throughout and following snow events at application rates recommended by the material supplier.

### **Traction Control**

Traction materials are no longer used.

### D. Post Storm Actions

### **Cleanup Activities**

Cleanup activities occur after the storm has subsided and any packed snow on priority 1 streets begins to dissipate. Determining the extent of the operation must take into consideration the available resources including staff, materials, equipment, and associated time.

Examples of cleanup operations include slushing snow to enhance melting, hauling snow from downtown areas, cutting ice from trouble locations, clearing snow from storm inlets, and after-storm sweeping operations.

### **Equipment Cleaning**

Equipment cleanup operations begin following completion of stated goals. Equipment will be cleaned and to reduce corrosion and detailed inspections will be performed to identify defects for repair to ensure fleet readiness for the next winter storm.

# **Analysis**

Manager and Supervisors will evaluate program metrics and ensure that proper records are documented and maintained. Post-storm debriefs will be scheduled for all staff involved in snow operations to receive feedback for ongoing program improvements.

# E. Post Season Actions

Manager will review season metrics and this snow operations plan and recommend changes or updates based on feedback from operators and improvements identified from seasonal data. Manager will provide an end of season report to Department leadership no later than June 30. Operator training will be scheduled for the following season. Snowplow vehicles will be thoroughly inspected during the off-season and any major repairs will be scheduled to ensure readiness for summer operations and the upcoming snow season.

# **Author and Review**

Name, Title	Date	Changes
Scott Schlecht, Streets Operations Manager, Author	10/14/2025	<ul> <li>Update language consistent with current practices.</li> <li>Update graphics and tables.</li> <li>Align the plan and field practices for clarity and transparency.</li> </ul>
Public Works Division Managers, Review	10/14/2025	