

BOROUGH OF DENVER

PUBLIC WORKS DEPARTMENT

SNOW AND ICE CONTROL PLAN

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**BOROUGH OF DENVER
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SNOW AND ICE CONTROL PLAN**

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**BOROUGH OF DENVER
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SNOW AND ICE CONTROL PLAN**

I. Scope of Plan

The Borough of Denver has an area of approximately 1.1 square miles inside the Borough limits and approximately 15 miles of streets. It is our intention as a Borough to meet the needs of our residents and travelers by providing safe street conditions during snowstorm events. **Our goal is to provide the best service possible in the most efficient manner at the lowest cost to the taxpayers.**

To perform this service, it is essential that the salting and plowing operations be conducted in a professional manner, equipment is properly maintained, materials are in sufficient stock and personnel are trained. This plan is intended as a Standard Operating Guidelines (SOG) manual for winter storms. The SOG is intended to be somewhat flexible since no two (2) storms are alike and varying procedures can be applied to different storms. This SOG covers all major assignments of personnel, salt applications, plowing routes, and additional support information. All winter emergency operations are a team effort and will be conducted as such. There are times when individuals will perform certain functions on their own, as directed by the Director of Public Works, but the final results reflect on the entire department and crew.

Public Awareness

It is the Borough's intention to educate the public as much as possible in an effort to improve the services that are available to provide to them. To do this the Public Works Department will develop and distribute annually as an insert in the Borough newsletter a "Snow Brochure." The "Snow Brochure" will include information regarding the Borough's snow and ice control plan and information on how the Borough staff and the residents can take steps to be as safe as possible during inclement weather events. The brochure will include information on the following issues:

1. Salting and Plowing procedures.
2. How to avoid having snow pushed into your driveway.
3. Vehicles on the streets.
4. Borough requirement to clear sidewalks within 24 hours.
5. Do not throw snow into the street.
6. Remove snow from hydrant areas around your property.
7. Do not drive unless absolutely necessary.

Pre-Winter Preparation

1. Training for maintenance and operational personnel is vital for success of a very difficult task such as a snowstorm. The Borough will conduct training in early November of each year to make sure that equipment operators understand how to operate and care for plows, spreaders,

and loaders. Employees shall receive a full review of snow plowing and salting routes, as well as the knowledge of how and when salt should be applied.

2. All equipment needed for winter emergencies should be operationally checked and prepared for service.
3. Materials needed for a winter emergency such as chains, salt, and hydraulic hoses should be inventoried and stocked as required.
4. A list of contractors shall be maintained in the event that additional equipment is required for snow removal and snow hauling. This list shall be updated by the Director of Public Works every fall and shall identify a contact person and phone number. Any contractors that are used must have on file with the Borough a Certificate of Insurance Liability form.
5. Public Works employees should be updated as to the status of all new development streets in the Borough. The Developer shall be notified of the Borough's procedures on snow removal.

Post Season Requirements

All equipment shall be checked for wear or defective parts. This shall be completed annually by April 1st. Any necessary parts should be ordered and repairs if necessary should be completed. All equipment shall be cleaned, greased, flushed out, or repaired prior to it being put away for the season.

II. Storm Alerting Procedures

If a storm develops during regular working hours, the Director of Public Works will determine when to mobilize. The time to mobilize will be based on weather forecasts and actual site conditions provided by Borough staff and police department information.

When a storm develops during off duty hours, the East Cocalico Police Department shall notify the Director of Public Works as to weather alerts and road conditions. The Director of Public Works and the Borough Manager shall determine when to mobilize. The Borough shall work annually with the Police Department concerning the appropriate procedures to follow in alerting the Public Works Department during storm events. Conditions must warrant a response condition before crews are to be called in to begin snow and ice control procedures.

If a major storm is anticipated, the Public Works Department shall be dispatched as soon as possible after precipitation begins. The Director of Public Works will be responsible to authorize additional staff when necessary. If conditions warrant, personnel should be called in to operate all available equipment. The goal will be to clear the streets as quickly as possible to avoid future problem areas. The Director of Public Works shall notify the Borough Manager and inform him of the situation.

When operations are expected to extend beyond regular hours, the Director of Public Works, in consultation with the Borough Manager, will assign overtime in accordance to the rules and

regulations established in the Borough. No employees shall work longer than **16 continuous hours** without approval by the Director of Public Works and the Borough Manager.

The Public Works Director will report periodically to the Municipal Building to update streets on which snow plowing has occurred and when. This information will help assist the administrative staff in answering customer concerns.

III. Snow Emergency

In order to combat the hazards of snow and ice, a Snow Emergency may be declared. As per the policy of Denver Borough Council, a snow emergency shall be declared when the Borough's snow plows are dispatched to the Borough streets. Under normal conditions, a plowable event in the Borough is defined as a snow event with two (2) or more inches of snow. The Mayor and/or Borough Manager may declare a snow and ice emergency (designated in this article as a "snow emergency"). Information on the designation and the termination of a snow emergency will be provided to Borough residents via television on WGAL Channel 8; on the Borough's website (www.Denverboro.net); and/or by email or telephone through the Borough's Emergency Notification System.

During the declaration of any snow emergency, it shall be unlawful to park a motor vehicle or to allow that vehicle to remain parked on the side of any snow emergency route designated in which parking is prohibited until the snow emergency is removed.

The following streets are designated as snow emergency routes in the Borough of Denver:

Street	Between	Parking Prohibited On
Juniper Street	North 5th Street to North 6th Street	Both sides
Locust Street	North 6th Street to North 4th Street	Both sides
Main Street	Snyder Street to North 8th Street	Both sides
Monroe Street	North 3rd Street to Snyder Street	Both sides
North 3rd Street	Main Street to Bridge	Both sides
North 5th Street	PA Turnpike Bridge to Juniper Street	Both sides
North 6th Street	Main Street to Borough Line	Both sides
South 4th Street	Main Street to Lancaster Avenue	Both sides
Walnut Street	North 3rd Street to North 8th Street	Both sides

During periods of severe snowstorms, the Director of Public Works may request rental of additional equipment if necessary. Prior to rental, certificates of insurance must be on file along with a statement that the lesser will be responsible for all maintenance of leased equipment. The Borough Manager shall approve all additional equipment rentals prior to being rented.

IV. Snow Plowing Details

Equipment

All equipment used in the winter storm operations will be checked on a daily basis during the winter season. The staff shall report any piece of equipment that is damaged or placed out of service to the Director of Public Works as soon as possible. Each employee is responsible for the daily maintenance of the vehicle he/she is assigned to.

The following is SOG for vehicles:

1. All vehicles used during the day will be filled with fuel when the fuel gauge reaches ½ tank.
2. Each truck should be equipped with the necessary basic tools, a flashlight, shovels, a de-ice kit, first aid kit, etc.
3. In the event of an anticipated storm, all equipment should be readied with chains and plows during the regular shift.
4. After the completion of each snow event, all vehicles will be unloaded and thoroughly washed out and serviced.
5. A complete inspection of all hoses, fittings, pins, plows, plow blades and spreaders shall be completed. Those in need of replacement will be noted and scheduled for repair.
6. All tools, chains, floor jacks, etc. shall be cleaned and returned to their proper place at the end of every shift.

Applications

The Borough uses approximately 90 tons of salt and 40 tons of anti-skid materials during an average winter. This amount varies depending upon the severity of the winter season. The following procedures will be implemented in the salting phase of any winter operations.

1. Personnel shall not overload the trucks with salt and anti-skid.
2. Salt will be used when temperatures fall below 32 degrees. The mixture of salt to antiskid material is three (3) scoops of salt for every one (1) scoop of anti-skid material.
3. Steep grades and stop signs on grades must receive special attention and extra applications.
4. The application of the salt shall be placed down the middle of the street whenever possible so that the melting will start on the crown of the street and go down both sides.
5. Salt applications will cease when snow reaches a depth of two (2) inches and snow continues to fall.
6. The setting should be a level that minimizes usage and optimizes effectiveness of the application.
7. During salt applications, one (1) Dump truck with tailgate spreader will work Main Street and the South side of the Borough. The other Dump truck with tailgate spreader will work all streets North of Main Street. Dump truck working Main Street and the South side of the Borough, will assist the Dump truck on the North side upon completion of their duties.

Plowing

The Borough uses a variety of snowplows each having their own unique uses. The following procedures will be implemented in the plowing phase of any winter operations.

1. Plowing is to begin when the accumulation reaches two (2) inches and snow is continuing to fall.
2. Snow plowing equipment should travel in the direction of traffic flow.
3. The speed of the plow is normally 15 mph, but will vary with the amount and type of snowfall. Efforts to minimize damage to private property are a key factor in regulating vehicle speed.
4. Every truck is assigned a specific area with a map of the streets and the priority areas.
5. Upon completion of the initial phase of the plowing operation, the pushing back phase will begin. During this phase great care should be taken to not push the snow onto sidewalks.
6. The Dump Trucks shall be used to clear the Main Streets (i.e. Main St., S.4th St., N. 6th St., etc.)
7. Trucks will be assigned based on the following:

Two (2) Dump Trucks with Tailgate Spreaders

- Plow the Main Streets (i.e. Main St., S. 4th St., N. 6th St., etc.) so that they remain passable to emergency vehicles, such as ambulances and fire equipment.

One (1) Pick-Up Truck

- The Borough's one (1) pick-up truck will start plowing on the north side of town. The dump truck assigned to the south side of town normally finishes that side first and will then assist with the north side. Following the completion of streets, the Borough will remove snow and ice from alleys.

Pick-Up Truck

The Borough's Pick-Up Truck #1 will be used as a reserve vehicle with snow plow and will be used as needed.

John Deere Backhoe

- The backhoe will clear all Cul-De-Sacs, move snow onto piles on Main Street, and clear snow from the various parking facilities and recreational facilities.

John Deere Tractor

- The John Deere Tractor and assorted snow blowing equipment will be used to clear the Municipal Building parking lot, the Denver Fire Company driveway and apron

area; as well as all Borough maintained sidewalks, recreational areas, parking facilities, and crosswalks.

8. Streets will be plowed based on the information listed on page 11 of this Plan – **STREET LISTING.**

The Director of Public Works will control specific streets as to priority other than those identified.

Snow Removal/Hauling

If snow accumulation is great enough to impede street parking and /or pedestrian traffic in the Main Street Business District, the following streets and/or intersections will be cleared of snow:

- Main Street Business District - 4th Street to 2nd Street
- South 4th Street - Main Street to South 4th Street Bridge
- Walnut Street - North 4th Street to North 6th Street
- South 4th Street/Lancaster Avenue Intersection
- Jefferson Avenue and South 4th Street Intersection
- Snow Piles in Cul-De-Sacs – Catalpa Circle, Aspen Court, Cedar Lane, and Sunrise Circle.

Contract forces may be used in conjunction with Borough forces during this phase of snow removal. These locations also may include key intersections in the Borough as well as narrow residential streets

Snow Disposal

The Public Works Department will mark and clear an area in the Denver Memorial Park and Playground to pile snow that is removed from the designated borough streets, intersections, and alleyways. The storage area location will be based on a location that does not drain into surface waters and where environmental impacts of spring melt are minimal. The Department will manage the remaining materials after the snowmelt by containing and cleaning up the sediment, stone, and debris.

A separate area at the Denver Memorial Park and Playground also will be cleared for snow disposal provided by private property owners who first obtain a permit from the Borough.

The Borough’s Snow Disposal Program’s goal will be to protect storm water by minimizing the impact of snow piles which contact salt, cinders, and trash and which generates concentrated releases of pollutants during spring snowmelt conditions.

V. Special Assignments

Plowing Responsibility

The Public Works Department's primary responsibility will be to clear the primary and secondary streets of the Borough. No call-in issues will take priority over the scheduled routes without the approval of the Director of the Public Works or the Borough Manager. The following special assignments shall be in effect during a snowstorm.

1. The Public Works Department shall be responsible for maintaining access to the following areas: Municipal Building Parking Lots, Denver Fire Company driveway apron and emergency parking areas. Following the completion of the plowing at Cul-De-Sacs, the Public Works Department will clear the parking areas for the Denver Recreation Center and the Denver Fire Company.
2. The Recreation Maintenance Laborer will be responsible to clear all Municipal owned/maintained sidewalks. The Recreation Maintenance Laborer also will assist with clearing snow at all crosswalks in the Borough as well as municipal recreation facility access drive access drives and trails.

Sidewalk Clearing

Sidewalks are to be cleared and salted within twenty-four hours after the snow or ice ceases to fall. The Borough's Recreation Maintenance Laborer has been assigned the responsibility to clear the following sidewalks maintained by the Borough:

- Municipal Building and side parking area
- Well #4
- Denver Filter Plant
- Borough Lot
- Denver Community Pool
- Sewer Lift Station
- North 6th Street Bridge
- North 5th Street Bridge
- North 3rd Street Bridge
- Main Street Bridge – by Kalas Manufacturing
- South 4th Street Bridge
- North 4th Street Playground sidewalk (including cemetery)
- Bon View Linear Park sidewalk on North 3rd Street
- Railroad crossings on Main Street and Locust Street
- Park Annex opening at North 9th Street
- Denver Memorial Park Walking Trail
- Denver Park Annex Walking Trail

New Development Streets

It will be the Director of Public Works' responsibility to visit all new developments within the Borough to ensure proper snow and ice removal has occurred. Any street that is not part of the Borough Street network and has not been properly cleared shall be addressed in the following manner:

- * Call the developer to initiate private clearing.
- * If there is no response from the developer, the Borough shall clear the street and invoice the developer.

Problem Areas

Alleys shall be plowed with the pick-up trucks upon completion of all street plowing. Cul-de-sacs are worked on by the backhoe; the tractor with a plow shall be used in these areas when possible.

As soon as the snowfall ends, the Public Works Department employees start the Boy Scout Cabin parking lot and the Recreation Center parking lot.

VI. Safety

A. Personal Safety - **DO NOT TAKE ANY CHANCES!!!** If a driver becomes sleepy, open the window, exercise, take a break or if necessary return to the garage for relief. Do not feel pressured to take chances and increase the possibility of an accident.

B. Equipment Maintenance - Each driver is to check the vehicle before use. Any deficiencies should be reported immediately to the Director of Public Works. All safety features including lights, horns, seats belts, flags, etc. should be checked prior to departure. During periods of prolonged use (minimum once every 6 hours) the vehicle should be inspected and lug bolts should be checked. Each operator is to complete a safety checklist prior to departure.

C. Accidents - **All accidents**, no matter how minor, must be reported immediately to the Director of Public Works who then will complete a review form and submit to the Borough Manager.

VII. MISCELLANEOUS

STREET LISTING

One (1) Dump truck assigned to:

Main Street	North 3 rd Street
North 6 th Street	Monroe Street
Snyder Street	
Bon View Drive	

This truck will assist the pick-up truck plowing on the north side of the Borough as well (i.e. Denver Heights, Snyder Acres, etc.)

One (1) Dump truck assigned to:

North 4th Street from Locust Street to Main Street

All streets South of Main Street (i.e. S. 4th St., Lancaster Ave., etc.)

This truck is utilized on the south side of the Borough to provide faster service with the limited number of streets. Upon completion of clearing all streets on the south side of the Borough, this truck will move plowing operations to the north side to assist with snow removal there.

North 2nd Street

North 8th Street

South 5th Street

Fifth Avenue

Birch Street

Elm Street

Evergreen Street

Madison Street

Park Lane

Spruce Street

Walnut Street

Cul De Sacs

All Other Streets

North 5th Street

North 9th Street

South 6th Street

Adams Street

Cedar Lane

Fausnacht Drive

Holly Lane

Maple Street

Poplar Street

Sunrise Circle

Washington Street

All Alleys

North 7th Street

South 2nd Street

South 7th Street

Beech Street

Cherry Street

Franklin Street

Jefferson Avenue

Oak Street

Railroad Street

Sycamore Drive

Weaver Road

SNOW BLOWER PRIORITIES

(Snow removal services provided by the John Deere Snow Blower in the order listed below)

Municipal Building Parking Lot

Denver Fire Company Apron

Bon View Linear Park Entrance (former North 3rd Street)

Denver Recreation Center Parking Lot

Shober Family Scout Cabin Parking Lot