

BOROUGH OF EPHRATA



SNOW AND ICE CONTROL PLAN



**BOROUGH OF EPHRATA
PUBLIC WORKS DEPARTMENT
SNOW AND ICE CONTROL PLAN**

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I. Scope of Plan

The Borough of Ephrata has an area of approximately 5.28 square miles inside the borough limits and approximately 72 lane miles of streets.

It is our objective 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, chemical application and plowing operations be conducted in a professional manner and that equipment is properly maintained, materials are in sufficient stock and staff 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 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 Public Works Superintendent, but the final results reflect on the entire Borough Organization.

Public Awareness

It is our objective to educate the public as much as possible in an effort to establish service expectations. In an effort to do this the Public Works department will do an annual snow information distribution either by mail, media or web site. The Borough will use a Public Notification system called Swiftreach to notify residents of cul-de-sac.

The Borough of Ephrata will make every effort to assist the vehicular and pedestrian traffic during inclement weather. The citizens of Ephrata can help with the effort by considering these points:

1. Knowing the salting and plowing procedures
2. Knowing how to avoid having snow pushed into your driveway
3. Park vehicles off of street whenever possible
4. Clearing sidewalks within 24 hours
5. Do not throw snow into the street
6. Remove snow from hydrant areas around your property
7. Only drive when absolutely necessary

Public Communication During and After the Snow Event

In order to communicate and track the snow events, we have created a computerized snow event logging program and have implemented the following status of snow removal:

Stage A – Maintenance

- 1 Snowing -Placing of anti skid material on roadways
- 2 Snowing - Plowing begins at 2" of accumulation and continues till snow stops
- 3 Snowing - Plowing of travel lanes on arterial roadways
- 4 Snowing - Plowing of travel lanes on collector roadways
- 5 Snowing - Plowing of travel lanes on local roadways

Stage B - Snow Clearing

- 6 Snow stops - Plowing continues on arterial, collector and local roadways
- 7 Snow stopped - Crews pushing back to curb line on arterial, collector and local roadways
- 8 Snow stopped – Crews widening intersections
- 9 Plowing of alleyways, cul-de-sacs
- 10 Plowing of parking lots
- 11 Clearing of sidewalks and Linear Park Trail

Stage C – Snow Removal

- 13 Hauling of snow from cul-de-sac
- 14 Removal of snow from Central Business District and Parking Lots
- 15 Clearing of crosswalks in Central Business District and school walking routes

Stage D - Wrap - up

- 16 Opening of storm drains for melting run off
- 17 Placing of anti skid on trouble areas from freeze thaw cycle
- 18 Check all streets and alley for areas where residents pushed snow in the streets

The Public Works Superintendent or his representative will post on the snow event program what phase the snow removal operation is in and estimated time to complete the phases. When customers call in to report a problem or concerns it will be documented on the snow event program that all Borough employees will have access to and be able to retrieve information. The person taking the call can then give real time information to the customer and they will be able to inform the customer of the phase of the operation. The customer will be asked to leave their name and phone numbers so that we may follow up after the completion of the snow removal operations.

After Hour Calls

Currently after hour calls are received by the voice mail system and or the police department.

Pre-Winter Preparation

1. Training for 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 assure 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 will be operationally checked and prepared for service by November 23rd.
3. Materials needed for a winter emergency such as chains, salt, wiper blades and hydraulic hoses will be inventoried and stocked as required.
4. A list of contractors shall be maintained in the event that additional resources are required for snow removal and snow hauling. This list will be updated by the Public Works Superintendent every fall and will identify a contact person and phone number. Any contractors that are used must have on file with the Borough a Certificate of Liability form.
5. Public Works employees will be updated as to the status of all new development streets in the Borough. The Developer will be notified of the Boroughs procedures on snow removal.
6. Public Works is investigating and building a Salt Brine system that would allow the department to apply salt brine to roads, sidewalks and the trail prior to winter events.

Post Season Requirements

All equipment must be checked for wear or defective parts. This will be completed by April 1st. Any necessary parts will be ordered and repaired if necessary.

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 Public Works Department will determine when to put equipment on the streets. This time will be based on weather forecasts and police department information.

When a storm develops during off duty hours, the shift supervisor of the police department will notify the Public Works Stand-by crew by cell phone as to weather alerts and road conditions. The shift supervisor and the Public Works Stand by crew shall determine when to mobilize. If a mutual decision cannot be reached, the Superintendent of Public Works will make the final decision. All police will be updated yearly regarding the appropriate procedures to follow in alerting the Public Works Department. 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, crews will be dispatched as soon as possible after precipitation begins. The Stand by crew and the Public Works Superintendent will authorize additional crews when necessary. If conditions warrant, personnel should be called in to operate all available equipment. Our goal will be to clear the streets as quickly as possible to avoid future problem areas.

When operations are expected to extend beyond regular hours, the Superintendent will assign overtime and/ or change shifts in accordance with in the Collective Bargaining Agreement. No employees shall work longer than **16 continuous hours** without approval by the Borough Manager.

Public Works crews will report periodically to the Public Works conference room to update streets on which snow plowing has occurred and when. This information will be processed and forwarded to the Business Office to help assist in answering customer concerns.

Documentation is a crucial part of the department's snow removal procedures. A storm report must be completed along with any other documentation by each crew member at the completion of his shift.

III. **Snow Emergency**

In order to combat the hazards of snow and ice a Snow Emergency may be declared. If conditions warrant, the Borough Manager will request that the Mayor declare a Snow Emergency. This should be in cooperation with the Commonwealth's declaration of a snow emergency. Once an emergency is declared, the following shall be notified.

TRAFFAX – Operations	- 717-744-8160
Cellular One	- Toll free *222
Infifax	- 717-744-8160

Once the snow emergency is lifted, TRAFFAX shall be notified by the Borough representative of the cancellation of the emergency.

IV. Snow Plowing Details

Equipment

All equipment used in the winter storm operations will be checked on a daily basis or at the end of each shift during a snow event during the winter season. The crew leader shall report any piece of equipment that is damaged or placed out of service to the mechanic as soon as possible. Each driver is responsible for the daily maintenance of the vehicle he/she is assigned to. Tire chains will be available for all large trucks. The installation and removal of the chains will be the responsibility of each driver. The following is an SOG for vehicles:

1. All vehicles used during the day will be topped off with fuel at the end of each shift.
2. Usage sheets shall be completed and turned in at the completion of each shift in vehicle.
3. Vehicles designated as stand-by vehicles are to be loaded with salt and calcium chloride and parked in such a way as to be easily accessible in case an emergency situation arises.
4. Each truck should be equipped with the necessary basic tools such as a flashlight, shovels, a de-ice kit, first aid kit, etc.
5. In the event of an anticipated storm, all equipment should be readied with chains and plows during the regular shift.
6. After the completion of each snow event, all vehicles will be unloaded and thoroughly washed out and serviced.
7. 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 forwarded to the mechanic for the scheduled repair.
8. 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 2500 tons of salt and 500 gallons of calcium chloride in the 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 calcium chloride.**
2. Salt will be wetted with Calcium Chloride when temperatures fall below 32 degrees.
3. Wetted salt will be applied when snow starts to lie on the streets or when rain begins to freeze on the roadways. Wetted salting operations shall be in accordance with the street route assignments.
4. Steep grades and at stop signs on grades must receive special attention and extra applications.

5. The application of the pre-wetted 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.
6. Salt applications will cease when snow reaches a depth of 2.0 inches and continues to fall.
7. The spinner should be set at a level that minimizes usage and optimizes effectiveness of the application. Do not over apply salt.
8. Each truck will have a form to record salt and calcium chloride usage and shall be turned in at the end of the shift.

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 2.0 inches and snow continues 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 those streets and the special areas. Drivers should use the maps to keep track of their progress and turn them in at the end of their shift.
5. Upon completion of the maintenance phase of the operation, the pushing back phase will begin. During this phase great care should be taken in NOT PUSHING the snow onto sidewalks.
6. Tandem plowing should be used when and wherever possible. Together one large and one small plow will clear each arterial street as defined below. The larger plow should follow slightly behind the smaller plow and overlap to pick up the windrow.
7. Trucks will be assigned as follows:

Dump Trucks	#55 #56 #57	Salting and plowing mapped areas
Pick-up Trucks	#52 #58 #54	Assisting in plowing mapped areas
Small dump truck	#69	Salting and plowing as identified on the street list.
Flatbed pick up with V box	#59 #66	Plowing of alleys
Loaders	#62 #68	Plowing of cud-de-sac
		Assist plowing during major events
Backhoes	#63 #64	Plowing parking lots
Skid steer		Sidewalks in CBD
Toolcat		Sidewalks / parking lots / Rails to Trails

8. Generally, streets will be plowed based on the following sequence and availability of equipment:

(street listing on page 14)

* Arterial Streets are first - as identified on the street listing.

* Collector Streets are second - as identified on the street listing.

* Local Streets are third - as identified on the street listing.

* Alleys and Cul-de-sacs are fourth

The crew leaders will make adjustments as conditions and equipment availability warrants.

Snow Hauling

If snow accumulation is great enough to impede street parking and /or pedestrian safety in the Central Business District, the Superintendent of Public Works shall prepare a list of snow removal locations. Contract forces may be used in conjunction with Borough forces during this phase of snow removal.

V. **Special Assignments**

Plowing responsibility

The Public Works Department will clear the streets of the Borough. No call-in issues will take priority over the scheduled routes without the approval of the Public Works Superintendent or the Borough Manager. The mechanic and construction tech can be assigned to assist if necessary and may be put on standby when a major storm is anticipated. Staff from other departments may assist in the snow removal procedures. The following special assignments shall be in effect during a snowstorm.

1. The Public Works crew will be responsible for maintaining access to the following areas: Borough Hall, Downtown Parking Lots including the Railroad Station, West Franklin Street and the Linear Park Trail. A list of parking lots is attached

2. The Wastewater Treatment Plant personnel will be responsible to clear all areas associated with the WWTP. This includes plants 1 and 2, all pumping stations. Water Operators are responsible to clear all water facilities sites.

3. The Electric personnel will be responsible to clear all driveways, sidewalks, and parking areas associated with the Electric Department and the Water Treatment facility. The Water Plant personnel will help if available. The Electric Department will also plow the substation. Electrical emergencies will supersede any snow and ice removal efforts.

4. The Fire Departments will be responsible for clearing areas associated with their property. This includes sidewalks, driveways, and parking lots. Public Works will assist to the best of their ability, to aid the Fire Company in serving the public, by clearing the apron, emergency parking spaces and the driveway at Pioneer and Lincoln.

5. The Recreation Department will be responsible for clearing the following areas: Recreation Center, June Haller Property, Playground areas, and the Public Library.

Sidewalk Clearing

Codes will begin checking sidewalks approximately twenty-four hours after the snow stops falling. They will begin checking the two elementary schools, middle school and the high school. Major pedestrian routes throughout the borough will follow as well as checking any complaints received. Door hangers will be left on properties that fail to clear any kind of a path unless it's a multi-unit and then the property owner will be contacted. A list will be kept of non-compliant properties and they will be re-checked twenty-four hours after leaving the door hanger. If the occupant fails to clear a path or contact us to request a short extension, a citation will be issued. At that time Codes will make arrangements with an outside contractor to have the sidewalks cleared and the borough will invoice the property owner for 110% of the cost of the service.

Snow covered public sidewalk complaints should be forwarded to Codes who will maintain a list. The list will be checked frequently to confirm the sidewalk conditions. A list of sidewalks maintained by the Borough is found in attachments.

New Development Streets

It will be the Public Works Superintendent's 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

Michael Court - Due to the property owned parking stalls and the dog bone island, Truck # 69 is used for clearing the roadway only; all other snow removal is property owner's responsibility

Linda Terrace - due to the narrow street parking and radius of this circle, truck #69 is required for all plowing and salting.

North Market Street - this street is difficult to plow and residents should be encouraged to park on only one side of the street if possible.

Duke Street - this street is difficult to plow and residents should be encouraged to park on only one side of the street if possible.

Letters will be sent to residents of Michael Court, Linda Terrace, North Market Street and Duke Street each year advising them of these problems and asking for their cooperation in our snow removal efforts.

Grant Street - While not a collector street, this street must be plowed early and often to assure access.

Alleys should be plowed with pick-up trucks. A number of alleys have been identified as priority alleys due to the fact that the residents do not have any on street access. These alleys have been added to truck #69 primary routes.

Cul-de-sacs should be plowed with the loader with a plow when possible. The following cul-de-sacs have been identified as cul-de-sacs that the snow can be piled in the middle of the street area. Gregg Circle, Glen Court, Gery Court, Sand Court, Farm Lane, Clover Court.

VI Safety

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.

Equipment Maintenance - Each driver is to check the vehicle before use. Any deficiencies should be reported immediately to the Mechanic or the Superintendent. 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.

Communication with Public – If driver is being flagged down to stop by a resident, the driver may stop; however, Driver should offer that all disputes or concerns be directed to the Public Works office. All drivers will have a business card of the superintendent to hand to the resident. At no time should the driver offer or assist the resident.

Accidents - **All accidents**, no matter how minor, must be reported immediately to the Crew Leader in charge or the Superintendent and the Police Department.

STREET LISTING

ARTERIAL STREETS

Main Street
State Street

Church Avenue
Martin Avenue
Fulton Street

COLLECTOR STREETS

Academy Drive
Church Avenue
Lake Street
Oak Street
Lincoln Avenue
Walnut Street
Chestnut Street
Fire Companies
Pine Street
Spring Garden Street
Bethany Road
Akron Road

Locust Street
Mason Drive
Irene Avenue
Maple Street
South Market Street
North Market Street
Old Mill Road
Steinmetz Road
Parkview Heights Road
Hospital – if necessary, when called -
access to emergency room only.

LOCAL STREETS

All other Streets

Cul-De-Sac

All Alleys

TRUCK #69 ASSIGNMENTS

Completed during the first phase of the snow event

Borough Hall Parking Lot
Police Employee Parking Lot
Lincoln Fire Company apron
Pioneer Fire Company apron
Russell Alley
Linda Terrace cul-de-sac
Pine Street extension (Tuffy lane)
Hill Street
Mountain Street

Michael Court
State Alley
Spruce alley
Sugar Alley
Grape Alley
Hunter Alley
Rose Alley
Diller Alley