The Town of Linn Highway Department strives to provide timely and effective winter maintenance services to all Town roadways to provide motorists with safe and passable roadways when winter weather events occur. The Highway Department is responsible for clearing snow from approximately 67 lane miles of roadway on both the North and South shores of Lake Geneva.

The primary goal of winter maintenance for Highway is to achieve "passable roadways" within the limitations imposed by weather conditions, available resources, and environmental concerns during a winter weather event.

Winter weather is unpredictable and the actions taken for each event relate to current conditions, types and amount of precipitation, ground and ambient air temperature, and the pending forecast. All of these variables create singular challenges; however, each event elicits a response guided by a program established over the course of many years. Noting that each winter weather event is different, the intended use of this plan is as a general guide for management decisions and reference for the Highway Committee, Town residents, and Highway employees.

Each fall, Highway reviews the snow plan and makes necessary alterations to encompass changes in staff, snow removal strategies, and the efficient integration of new equipment. During the winter months, efforts to incorporate appropriate changes and conduct operations consistent with the snow plan require the cooperation and coordinated effort of all parties involved.

Please contact the Highway Department at 262.275.6300 for any additional questions or information.

General Policy

Policy Goal:

Provide effective, consistent, and environmentally responsible snow removal services to the travelling public in an expeditious and cost-effective manner within the resources available to the Town of Linn.

Objectives:

Respond to each winter weather event, using best judgment for an efficient, timely response for labor and equipment based on changing weather and roadway conditions.

Allocate and mobilize appropriate response of work force and equipment necessary to provide reasonable snow removal without incurring unnecessary expenses.

Evaluate and change the Town snow policy and sections on an annual basis, if necessary, to encompass changes in jurisdiction, staff, philosophy, and the efficient integration of new equipment or technology

Continue to evaluate current management practices to allow for new developments in ice control and snow removal procedures to provide efficient, cost effective service.

Provide continual training and instruction for employees.

Provide information to the public each year, regarding snow removal procedures and snow plowing regulations on Town roadways.

Information is available on Town website.

Provide regular preventative maintenance checks and services to snow removal equipment to ensure reliability.

Operate all Town-owned snow removal vehicles and equipment in accordance with all Town ordinances and State regulations

Passable Roadway Conditions

迷

The Highway Department will strive to achieve a level of service that returns roads to a safe traveling condition as soon as possible. Weather changes can have a key impact in the results of snow and ice operations. Drastic air and pavement temperature declines, time of day when the event occurs, and traffic volume will all have an influence on the effectiveness of snow and ice control/removal operations.

It is recognized that this policy is a "passable roadway" policy. A passable roadway is defined in this policy as a roadway surface that is free from as much ice and snowpack as practical and can be traveled safely at reasonable speeds. A passable roadway should not be confused with a dry or bare pavement policy which would indicate that roads would essentially be free of all ice and/or snow accumulations immediately following an event.

This also does not mean that the traveled portion of a roadway will be cleared to the pavement at all times. In fact, the travelling public should be aware that the traveled portions of a roadway and/or bridges will, at times, have snow and/or ice which may create slippery conditions.

A passable roadway is defined as a roadway surface that is free from as much ice and snowpack as is practical and can be traveled safely at *reasonable speeds*.

"Reasonable speed" is defined as a speed that a vehicle can travel without losing traction.

During and immediately after a winter storm event, a reasonable speed will most likely be lower than the posted speed limit. Motorists can expect some inconvenience and will be expected to modify their driving practices to suit road conditions.

A passable roadway should not be confused with "dry pavement" or "bare pavement", which is essentially free of all ice, snow, and any free moisture from shoulder to shoulder. This "dry/bare pavement" condition may not exist until the weather conditions improve to the point where this pavement condition can be provided.

The Town of Linn *does not* enforce an expectation of "bare pavement" Motorists should adjust their driving accordingly, consistent with conditions while Highway personnel battle the winter weather event

The primary method of snow removal shall be by plowing. Salt, sand/salt, salt with additives, brine and brine with other additives may be used to enhance snow removal operations or to improve traction. Deicing chemicals work by lowering the freeze point of water. Before a dry deicing chemical can act, it must dissolve into a brine solution. The necessary moisture can come from snow on the road surface, water vapor in the air (humidity). Changing ice and/or snow into water requires heat from the air, sun, pavement or traffic friction. Even when the pavement is below freezing it holds some heat and can help melt snow and ice. As air and pavement temperatures drop, the amount of deicing products needed to melt a given quantity of ice increases. Highway Department employees shall use pavement temperatures as a reference when applying deicing materials.

Snow and Ice control operations will commence on certain Town roads when hazardous conditions begin to develop. The objective of the Town of Linn's Snow and Ice Control Program is to respond to poor road condition reports within 30 minutes during normal work hours and within 60 minutes after hours. Snow plowing and/or ice control operations will commence after one of the following conditions occur:

- Accumulation of snow on roadways creating a hazardous driving condition
- Icing conditions (minor accumulations that turn to ice or glaze ice under heavier traffic conditions) This includes freezing rain events or black ice conditions
- Drifting where snow covers a minimum of $\frac{1}{2}$ of a lane of travel
- Drifting during a prolonged wind event during blizzard conditions
- Request from the Town of Linn Police Department
- Request from the Town of Linn Fire Department
- Walworth County dispatch

Both during and after hours the Highway Superintendent will determine the necessary course of action required to address a snow or ice concern. The Superintendent will work in conjunction with the police department after hours to determine the severity of reported road conditions and the resources needed to address the conditions observed. The Highway Department strives to achieve an acceptable level of service to return our roads to that of safe traveling conditions at the duration of an event as soon as possible. One of the challenges faced is that we service anything from main arterial roads to deadend streets. Main arterial roads (those with posted speed limits of 45mph or greater) will be serviced to bare pavement as soon as possible following the conclusion of an event. Certain main subdivision streets or portions of the street, as determined by the Superintendent under the direction of the Town Chairman and Board, may also follow this guideline. The remaining secondary, cross and dead-end streets will be serviced with the same expectation as arterial with the understanding due to low traffic volumes and possibly different material application rates, that some snow may remain on the pavement following the conclusion of snow and ice control operations. This will be acceptable at the Superintendent's discretion. If the remaining snow is determined to pose a risk to the traveling public, additional servicing will be warranted.

Streets maintained by the Town of Lin are prioritized into 4 categories:

- 1. Main/Primary Arterial
- 2. Main Subdivision
- 3. Secondary/Cross streets
- 4. Dead end streets

Plowing and ice control generally occurs normally between the hours of 3 a.m. to 9 p.m. seven days a week. Between 9 p.m. and 3 a.m. trucks are used as needed to keep main and primary roads passable. Certain weather conditions/events may dictate deviation from these parameters.

Coverage Times

Normal Highway operation times are from 3:00 a.m. to 9 p.m. unless an extenuating circumstance or emergency exists. Highway institutes the following limitations on said coverage times, endeavoring to maintain safe systems of work for all employees. Those limitations are as follows:



No employee under *typical* conditions will work more than 12 hours.

Conditions that warrant exceeding 12 hours shall be determined by the Highway Superintendent.

No employee under *emergency* conditions will work more than 14 hours without approval of the Highway Superintendent and/or Town Administrator or Highway Chairman.

All employees that work a shift that exceeded 12 hours will have 6 hours of mandatory rest before reporting back to work.



No employee will work more than 16 hours continuously.

Salt & Chemical Use

In order to keep our roads as safe as possible, the Highway Department not only uses salt (dry material) but combines salt with a blended salt solution. This liquid blend when applied with salt aids in the removal of snow and ice accumulations on paved surfaces. The biggest benefits of using a liquid blend in addition to salt are:

- Salt needs moisture to work. Adding a liquid activates salt faster than just using a dry material.
- Using a liquid allows more salt to stay on the road when spread; therefore, more material remains on the pavement and less needs to be used.
- Salt alone becomes ineffective when pavement temperatures reach 15 degrees.

The Town of Linn Highway Department also uses a practice called anti-icing on selected Town owned roads. Anti-icing is a chemical application of a winter maintenance chemical to our main roads before an anticipated snow/ice event. This aids in the prevention of snow and/or ice from bonding to the pavement surface at the beginning of the event. You will recognize when a road has been given the application as it will have brown lines in the lanes of travel. The blend used by the department allows for pretreatment days in advance of a storm if deemed necessary.

Material Usage

Material usage and rates can and will be adjusted based on the amount of available the department has on hand. Harsh winters and frequent events can deplete stockpiled materials quicker than they can be obtained in certain situations. The Department's goal is to have on hand as much deicing materials as possible at any given time during with winter.

Snow Emergency

A snow emergency may be declared by the Highway Superintendent, Highway Committee Chair, Town Chairman or designated authority employee when snow accumulations reach 6" or greater in a 24-hour period. When a snow emergency has been declared all of the Highway Department's resources will be concentrated on snow and ice control. After the snow emergency has been cancelled, the department's operations will return to normal. At that time any snow or mailbox concerns will be addressed along with any other service requests in a timely manner.

Severe Winter Storms

Situations covered in this portion are, but are not limited to: heavy snow events, accumulating ice events, high wind events. The following terms are associated with winter storms:

- Winter Storm Watch
- Winter Weather Advisory
- Winter Storm Warning
- Blizzard Watch
- Blizzard Warning
- Freezing Rain Advisory
- Ice Storm Warning
- Heavy Snow Warning
- Snow Advisory
- Sleet Advisory
- Wind Chill Advisory
- Wind Chill Warning

Situations:

During severe winter weather, the Highway Department will use all available resources to address the specific weather-related concern at the present time. All of the department's staff and equipment will concentrate on the task of snow and/or ice control and removal. When roadways are returned to a safe condition for traveling by the general public, the department will resume its daily activities.

Every effort will be made to give every street equal service for snow removal, however in heavy or rapid accumulation events, main arterial and main subdivision roads may be serviced more often.

Snow/Ice control operations may be suspended for one or more of the following reasons:

- 1. Weather conditions make visibility less than 25 feet from the drivers view.
- 2. Existing or anticipated conditions that indicate operations will not be effective.
- 3. State and/or county roads are closed due to severe winter weather.
- 4. Equipment break downs.
- 5. If conditions deteriorate to the point that operations become unsafe for employees/operators because of factors including, but not limited to: severe cold, significant winds, zero visibility, accumulation of ice or rapid accumulation of snow.

Complaints

Complaints should be directed/reported to the Highway Superintendent. The Highway Superintendent will investigate and determine the course of action to resolve the complaint. If he cannot, the Superintendent will meet/discuss the complaint with the Highway Committee Chairman and Town Administrator. If their decision/action is not satisfactory to the person making the complaint it will then be discussed with the Town Chairman and or Town Board. Final action on the complaint will then rest on the Chairman and the Town Board.

Complaints given in a respectable manner will be addressed by the Highway Superintendent. The Town's employees and the Town Board will not deal with rude or belligerent complaints. Complaints regarding individual operators must be submitted to the Highway Superintendent in writing and signed. The process for addressing written complaints will be the same as outlined above for general complaints.

Mailbox Repair/Replacement Policy

It is the policy of the Town of Linn that all mailboxes damaged by the Highway Department during snow and ice operations will be offered the following replacement choices: The Town will install for the property owner, a standard post and box <u>or</u> the Town, upon receipt of materials, will reimburse up to \$50, to the property owner for the replacement of the mailbox. The Town will only take responsibility for damage if it is caused by a direct hit from the snowplow. If the damage occurs as a result of the snow being discharged from the plow the responsibility of repair and/or replacement falls on the property owner.

Highway Department Snowplow Operation Guidelines

The Town of Linn Highway Department is responsible for the removal of snow/ice off all town roads. It is our responsibility to remove snow and/or ice in the safest most efficient manner. Safety, for our residents and us is our number one priority. Plowing is NOT a race. By rushing you may cause damage to Town owned equipment or resident owned property.

If at any time during the winter season these policies/procedures need to be altered, the Superintendent, Highway Chairman, Town Chairman or Designee may do so as they deem necessary.

Town roads will be plowed in a priority as follows:

- 1. Main/primary arterial streets
- 2. Main Subdivision streets
- 3. Secondary streets
- 4. Dead-ends

The first pass is intended to take out the center lane in the direction in which you are traveling. The second pass in both directions is to widen the street, if necessary. All streets will be plowed from shoulder to shoulder. Opening passes shall be made on every street before street widening is performed. Plowing with the wing down, if applicable, appropriate and safe, is encouraged.

NOTE: The goal of the department is to return the roads to a condition that is safe for vehicular travel for our residents as soon as possible following a snow or ice event. However, this doe NOT constitute a race. Take your time and do you job right. You are expected to operate your truck in a professional manner while you are representing the Town.

During snowstorms or lengthy snowfalls, alternate from taking out the center lane in either direction to shoulder to shoulder so excessive amounts of snow do not build up on the street. Frequently check your main arterial and main subdivision roads and plow/salt them so they remain as clear as possible.

Even with technology, the simple and best practice for removing snow from pavement is mechanically with a plow. Attempts to "burn" off excessive accumulations of snow will not be tolerated and will be addressed with the proper disciplinary action. Even in minor snow events, if your plow can remove ANYTHING from the road, then it needs to be down. The less snow and ice on the roadway when you apply materials and chemicals, the better and faster you will achieve positive results.

If you're not sure how to plow a certain snowfall or situation, ask!

Salt and Chemical Use

As a department employee you will be trained specifically how to dispense deicing materials and chemicals and how to load them onto your vehicles. There is a balance between an acceptable level of service performed and utilizing and properly applying materials and chemicals. Over-use is unacceptable and will not be tolerated. Different vehicles have different application operating systems and you will be trained accordingly. Liquids have proven to be a valuable asset to snow and ice operations and will always be used unless directed not too.

Every time you make a pass with your plow you must put down materials and/or chemicals to keep snow and ice from bonding to the pavement. Once the bond is made, studies have shown it takes 4 (four) times the materials to break the bond than to maintain it from happening. Depending on pavement temperatures a recommended application rate will be posted. In addition, refer to application rate guideline sheets provided to you. Note, the rates are recommended. Common sense should also play a role in application rates.

Anti-icing & Pre-wetting.

The Town of Linn has the ability not only to use liquid chemicals before snow and ice events, it also has the capability to use them during storms and clean-up. Before using the anti-ice sprayer, the operator should become familiar on how to load liquid into the tank and the operation of the sprayer. Reading the owner's manual for the spray unit is recommended as there are different operation requirements. Anti-ice routes have been established that when conditions warrant the listed streets in the chosen route will be given an application of liquid. The route chosen will depend on what the pre-storm conditions warrant. If additional changes are needed, the changing of the route must be with the approval of the Superintendent.

Material Loading & Salt Barn Maintenance

Make sure your truck is parked in an area where safe and efficient loading can take place. Any material spills must be cleaned up as soon as possible. Good salt storage and housekeeping practices must be used. You will be instructed on how to load liquid on your truck from the bulk storage tank if your truck is liquid capable. Annually, the salt barn structures and surrounding area (paved surfaces, lighting, etc.) should be checked for issues or potential issues. Defects or issues should be reported immediately and corrected in a timely manner.

Loading Salt. It is important to keep your bucket low to the ground until you are lined up with the truck to prevent tip-overs. Salt deliveries are to be made to the main storage facility only unless otherwise directed. In the instance where a different material is available in the secondary storage facility and it is deemed to be the product needed, employees will be directed to load out of the secondary facility. The decision of material usage will be at the discretion of the Superintendent or his/her designee.

Mailboxes

You want to get as close as you can to mailboxes without hitting them. You will have to reduce your speed on the side of the street where mailboxes are located. Sometimes just the snow discharge from the plow can knock over a mailbox. If you hit one or come across one that is down make sure to record this on your snow sheet.

Town Hall and Parking Lot/ Fire Department

The town hall and parking lot including the sidewalks need to be cleaned. In addition, the parking lot at the fire department needs to be cleaned up. Special attention should be paid to days and nights when there are public meetings to be held.

Vehicle Clean-up

Unless otherwise directed, we will dump salt and wash trucks after every snowstorm. Truck inspections must be completed.

Routes

Each truck will have an assigned route. You are to complete your route entirely before you can either go home or assist someone else in finishing theirs. Only under the direction of the Superintendent are you allowed to leave your route if it is not completed. A request from the Fire or Police Department can be handled with notification to the Superintendent as soon as possible.

Trucks

- 1. YOU are responsible for your truck.
- 2. Do a walk around inspection before and after plowing.
- 3. All trucks are equipped with warning lights. The lights MUST be on any time the vehicle is performing snow/ice control.
- 4. In the event of a break down, notify the superintendent of the situation and if someone will need to cover your route.
- 5. Everyone has a radio. The radio can be monitored by scanners, so watch what you say. Use radio etiquette. We will use these to communicate problems or information.
- 6. Report hazards: downed trees, parked cars, etc. Do not plow in parked cars. You may stop and assist if someone is stuck or in an accident but be careful and use discretion because you can become liable. You may help a stranded motorist contact the police or a tow vehicle. UNDER NO CIRCUMSTANCES ARE YOU TO PULL OUT A DISABLED VEHICLE WITH A TOWN OWNED TRUCK. You must wear a safety vest or proper reflective attire if you exit your truck for any reason while you are on the road.
- 7. In the event you come up on an accident, evaluate the situation, call 911 immediately if needed. Try and assist with what you can but do NOT move a victim unless he/she is in a life-threatening situation where you have no other choice. Advise 911 operators of your actions if and when needed.
- 8. Make sure the truck interior is free of garbage and the truck fueled when you are done.