

# City of Menominee Snow and Ice Plan



Department of Public Works

City of Menominee  
2511 10th St  
Menominee, MI 49858

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## Purpose, Policy, Considerations, Level of Service

### Purpose

The purpose of the Snow and Ice policy and procedure plan is to communicate the process and level of service for snow removal and ice control for the City of Menominee. The City's streets are divided into arterials, collector streets, residential streets and alleys. The arterials and collectors receive de-icing and plowing priorities. This assures each residential area is in close proximity to a plowed street and that emergency services can be provided. Winter storms can be trying for all of us, motorists, residents and snowplow operators alike.

The goal of the Public Works Department is to remove snow and ice from our roadways as rapidly and efficiently as possible while keeping roads open and essential traffic moving. This does not mean bare, dry pavement should be expected after a snowstorm.

The aim of snow and ice control operations is to return road surfaces to safe winter driving conditions as soon as feasible within the limitations of this policy, our limited resources and weather conditions. With proper use of storm forecasts, personnel, equipment, and deicing materials, the desired result can usually be attained. However, flexibility is needed to adapt to the variety of circumstances and conditions during a snow or ice storm. The following policies and procedures serve as a practical guide for effective snow and ice control procedures in the City of Menominee.

### Plan Considerations

In developing the policies for how to best undertake winter maintenance activities the City considers a number of factors including, but not limited to the following:

- Public safety.
- The amount of funds available for these activities.
- The number and availability of personnel to engage in these activities.
- The desire to maintain a safe and efficient transportation system.
- The ability to deliver emergency services.
- Environmental impacts.
- Weather conditions including temperature and snowfall amounts.
- Protection of City property and personal property, and;
- Effectively allocating resources.

### Policy Statement

The snow and ice control objectives of the City are to:

- To provide safe traveling conditions for pedestrians and motorists.
- Provide cost effective snow and ice control services.

- To reduce economic losses to the municipality and to businesses that can result from workers being unable to get to their jobs.
- To assist Police, Fire and Emergency Medical Services in fulfilling their duties, and;
- To provide safe, passable roads and school bus routes.

The City of Menominee has a commitment to provide effective and efficient winter maintenance to its citizens. However, it must be noted that the following circumstances may prevent or delay complete implementation of this Plan:

- Equipment breakdown
- Vehicles disabled in deep snow and weather so severe as to cause crews to be called in from their duties for their safety
- Equipment rendered inadequate by the depths of the snow or drifts
- Crew breaks, and breaks required for re-fueling and refilling deicing materials
- Mechanical failures and needed repair
- Parked or stalled private vehicles that restrict or prevent safe roadway movement and plowing
- Unforeseen emergencies

### Scope of Responsibility

The City of Menominee Public Works Department is responsible for snow and ice control on state and municipal streets within the city limits.

- The City does not remove snow and ice from private streets, parking lots or driveways.
- The City is not responsible for snow and ice control on sidewalks except those immediately abutting or within municipal facilities or properties.
- The City is responsible for snow and ice control on municipal parking lots.

### Level of Service

It is the expectation of our citizens that we will keep all of the city streets sufficiently passable during and following a winter weather incident. To accomplish this, the City will provide, to the extent reasonably possible, effective and efficient measures consistent with generally accepted standard practices to restore mobility. Due to the many variables associated with winter weather, each event is unique. Factors that influence when and what measures we use include: air and pavement temperatures, wind speeds and directions, precipitation rates and types, time of onset, duration and traffic activity. Availability of equipment, personnel and materials are also key factors that affect the effectiveness of snow and ice control efforts.

Snow and ice control measures are directed to achieving and maintaining relatively safe traffic movement on public streets within a reasonable time period. Therefore, efforts are first concentrated on the main arterials, collectors and streets that carry most of the traffic. Residential and other low-volume streets, alleys and cul-de-sacs are handled when resources are available.

The best level of service is reached when the major thoroughfare streets are down to “bare pavement” clear of snow and ice from curb-to-curb. Reaching that objective takes time which is affected by the variables of weather conditions, traffic activity and type and amount of materials applied. The width of certain streets and number of turn lanes also are factors.

The minimum level of service for thoroughfares is to clear the through lanes and left-turn lanes at intersections and median breaks down to a packed snow cover. Exclusive right-turn lanes and joint center turn lanes may be left unplowed during main operations.

## **Implementation**

These following policies and procedures outlined herein will be in effect when weather conditions could cause accumulations of frost, sleet, ice or snow on our maintained roadways, streets or municipal parking lots and will be in effect during the normal winter season. The City of Menominee Public Works Department begins preparing for winter as early as October. All snow equipment is serviced, mounted and checked to see that it is in good working order. Anti-icing materials are stockpiled so that enough is on hand for a number of storms.

## **Monitoring Snow / Ice Events and Snow Emergency**

During normal working hours, (7:00am to 3:00pm., Monday thru Friday) the observations of the Public Works Department and Police Department will alert the first response for snow and ice removal. After normal working hours, police officers will make observations and recommendations to the Public Works Emergency On-Call personnel regarding street conditions. Based on the observations of the Police, the foreman in-charge will perform their own review of the road conditions, and make necessary decisions to begin snow / ice removal operations. The foreman in-charge will be notified of any snow removal issues or traffic emergencies and make adjustments to snow removal operations as needed.

## **When Operations Begin**

The foreman in-charge will decide when to begin snow/ice control operations. The criterion for that decision is:

- Snow accumulation, or expected accumulation, of 0 -1” inches or more;
- Icy conditions which affect travel;
- Time of snowfall in relationship to traffic volumes.

Snow and ice control operations are expensive and involve the use of limited personnel and equipment. During a snow event, snow removal can become a 24/7 operation until all priority streets, collectors, arterials are cleared. For snow storms lasting longer than 24 hours, personnel are divided into crews working alternating 12-hour schedules depending on the shift that they are assigned. The use of weather reports from the National Weather Service, review of live local television satellite storm tracking and

commercial radio will be used concurrently with existing street condition reports to determine the appropriate storm response.

### **How Snow is Removed?**

Snow will be plowed in a manner so as to minimize traffic obstructions. The center of the roadway will be plowed first. The snow is pushed from left to right. The discharge shall go onto the shoulder area of the street. In times of extreme snowfall and ice, streets will not always be able to be completely cleared. Plowing will normally begin when one or more inches of snow accumulate.

The primary routes will always have priority when engaged in plowing. Bridges on main arterials have top priority. Plows will remain working on their assigned routes during adverse conditions.

Once the primary routes are open, the secondary and residential routes can be plowed. Operators will plow whenever possible to make right turns, this helps keep the intersections from developing a berm for cross traffic to go over. Operators are trained while on multi-lane roads, to plow the inside lane first and plow snow to the outside whenever possible. It is common practice to plow the turn lanes on the first pass and avoid burying fire hydrants with snow spoils. Operators plow slush at speeds not to cause damage or injury to property or people by the spoils coming off the blade.

Employees assigned to snow removal shall be responsible for the completion of their assigned route and appropriate snow removal based on weather or roadway conditions. Each operator assigned to a specified route shall be responsible for monitoring its condition and shall maintain communication with the foreman in-charge to report on their progress and the effectiveness of the deicing and plowing efforts. The foreman in-charge will be responsible to direct and coordinate work crews to complete snow and ice removal in accordance with established priority ratings.

### **Personnel Responsibility**

The snow and ice control plan used by the City of Menominee has been developed to establish a chain of command through which winter maintenance policies can be transformed into an effective and uniform set of actions. The actions taken by snow crews are the result of the general policies established by the administration, and procedures set forth in this plan, as approved by the Director of Public Works.

#### **Operators:**

The snowplow operators are the key to the success of the Snow and Ice Removal Plan. These operators are responsible for:

- Maintaining a positive work environment to enhance the teamwork concept;
- Providing a timely, effective service for their designated routes;
- Maintaining vehicles, plows and spreaders in safe working order;
- Properly documenting snow removal activities;
- Serving as good-will ambassadors for the City

## Foreman-in-Charge:

Crew supervisors are responsible for:

- Maintaining a positive work environment to enhance the teamwork concept;
- Coordination of service to ensure timely, effective coverage;
- Coordinating vehicle, plow and spreader maintenance and repair to ensure safe operations and adequate coverage;
- Maintaining deicing inventories and other vital supplies;
- Timely, courteous response to service complaints, requests and inquiries; and
- Providing training opportunities for snowplow operators

## Management

Management is responsible for:

- Maintaining a positive work environment to enhance the teamwork concept;
- Providing adequate resources to ensure timely, effective service;
- Creating training and feedback for supervisors and operators;
- Utilizing various forums to create and maintain public awareness and support for snow removal activities.

## Priorities

During snow / ice conditions, calls from the Police and Fire Departments regarding accidents, medical or other emergency situations are given top priority. Upon request of the appropriate agency, the Public Works Department will provide assistance as necessary. Because of the high priority assigned to snow and ice control, almost all other Public Works operations become secondary to snow removal activities. Streets will be plowed and have anti-icing materials applied according to established priorities. Priorities are set based upon traffic volume, public safety, and access to emergency facilities and schools. During major storms, crews will plow continuously and apply anti-icing materials (where required) prior to high volume traffic hours. Depending upon the type and intensity of the storm, plowing operations may be suspended during peak traffic hours to devote maximum effort to deicing operations to provide better traction.

All streets in Menominee are prioritized into groups for conducting snow removal operations, and snow plowing routes are also color coded for easy identification. Occasionally multi-lane roads may require tandem plowing; this is a judgment call as conditions warrant. If this becomes necessary, employees will contact the foreman in-charge before leaving assigned route to provide assistance in an adjoining route. The following summarizes the snow removal priorities.

## Priority 1 – Major and Minor Arterials --- RED

These roadways are the major arterial streets and have two to four travel lanes. These streets are given first priority since they provide the interconnecting link from all corners of the City. Also included are streets that provide connections to the major arterials. School zones in the city are also considered Priority 1 during normal opening hours. Priority 1 streets will be maintained for all snow events.

Location	From	To
US – 41 (10 <sup>th</sup> St)	10 <sup>th</sup> Ave North	48 <sup>th</sup> Ave
10 <sup>th</sup> Ave	1 <sup>st</sup> St West	26 <sup>th</sup> St
M-35	US – 41 North	48 <sup>th</sup> Ave
1 <sup>st</sup> St	10 <sup>th</sup> Ave South	Odgen St Bridge
26 <sup>th</sup> St	10 <sup>th</sup> Ave South	Hattie St Bridge
10 <sup>th</sup> St	10 <sup>th</sup> Ave South	4 <sup>th</sup> Ave
4 <sup>th</sup> Ave	10 <sup>th</sup> St East	2 <sup>nd</sup> Ave
2 <sup>nd</sup> Ave	4 <sup>th</sup> Ave East	1 <sup>st</sup> St
26 <sup>th</sup> St	10 <sup>th</sup> Ave	Wisconsin
Interstate Bridge	Michigan	Wisconsin
Odgen St Bridge	Michigan	Wisconsin
Hattie St Bridge	Michigan	Wisconsin

## Priority 2 – Collector Streets -- BLUE

These roadways are major collector streets and are generally streets that connect major arterial streets to residential streets. Also included are streets that provide access to major office areas and business areas such as grocery stores, service stations and the downtown business district. Priority 2 streets will be maintained for all snow events.

**Special Priority:** Certain streets that do not meet the classification of Priority 1 or 2 streets have been identified for snow and ice control operations at specific locations. The locations for streets in this category are limited to chronic icing problems at hills, curves or intersections that are likely to cause traffic accidents. These streets will be maintained after completion of the Priority 1 and 2 streets.

Location	From	To
14 <sup>th</sup> Ave	1 <sup>st</sup> St West	Memorial Dr.
16 <sup>th</sup> Ave	1 <sup>st</sup> St West	West Dr.
18 <sup>th</sup> Ave	1 <sup>st</sup> St West	City Limits
20 <sup>th</sup> Ave	US-41 West	18 <sup>th</sup> St
22 <sup>nd</sup> Ave	13 <sup>th</sup> St West	22 <sup>nd</sup> St
23 <sup>rd</sup> Ave	US-41 West	22 <sup>nd</sup> St
26 <sup>th</sup> Ave	US-41 West	18 <sup>th</sup> St
30 <sup>th</sup> Ave	US-41 West	22 <sup>nd</sup> St



38 <sup>th</sup> Ave	US-41 West	22 <sup>nd</sup> St
48 <sup>th</sup> Ave	M-35 West	City Limits
56 <sup>th</sup> Ave	US-41 West	Bay De Noc Dr.
13 <sup>th</sup> St	58 <sup>th</sup> Ave South	10 <sup>th</sup> Ave
18 <sup>th</sup> St	48 <sup>th</sup> Ave South	38 <sup>th</sup> Ave
18 <sup>th</sup> St	30 <sup>th</sup> Ave South	10 <sup>th</sup> Ave
22 <sup>nd</sup> St	38 <sup>th</sup> Ave South	11 <sup>th</sup> Ave
West Dr.	18 <sup>th</sup> Ave South	25 <sup>th</sup> St
25 <sup>th</sup> St	West Dr. South	10 <sup>th</sup> Ave

### Priority 3 – Residential Streets -- **GREEN**

Selected local streets within residential and commercial areas will be plowed on a limited basis after priority one and two streets are passable. The first local streets to be plowed will be primary streets and loop streets through subdivisions. This plan allows all residences to be in close proximity of a plowed street in the shortest amount of time. The City will address the remaining residential streets as time permits and weather conditions warrant. The City attempts to plow local streets prior to times of greatest use, i.e. the hours when residents leave home and return from work, provided higher priority streets are passable.

### Priority 4 – Alleys, Sidewalks, Parking Lots

Priority 4 locations contain residential alleys, sidewalks adjacent to municipal facilities and municipal parking lots. These locations will be maintained after completion of the Priority 1, 2 and 3 streets and work will be performed during regular business hours.

### Travel Restrictions and Street Closures

During certain winter storm events it may become necessary to close streets or portions of streets to traffic. The City of Menominee Police Department may restrict the type of vehicles that may be operated on city streets during severe weather conditions and may order that certain streets be closed. Every effort will be made to alert the public of any restrictions and/or closures through the news media, community contacts, and posted on the city’s web site; this action will only be taken if extreme weather conditions deem an area of the city unsafe for transit.

### Winter Storm Categories

Winter storms that occur in our area may be categorized into four basic types. The response to the storm is different for each category. The following discussion presents information concerning these categories, the service levels maintained and the materials used for each type of storm.

## Category 1 – Predicted Snow Fall Amount : Trace to 2”

**Service Level:** Maintain primary (red priority) and secondary (blue priority) routes during storm. Lower priority snow routes usually do not require service.

**Materials:** Salt as needed. Road treatment primarily consists of applying salt if necessary prior to the onset of the storm. Typically these storms move out of Menominee within 24 hours and one application of salt is sufficient to maintain the desired service level. (This storm category does not typically require multiple work shifts).

## Category 2 – Predicted Snow Fall Amount : 2” to 6”

**Service Level:** Maintain primary (red priority) and secondary (blue priority) routes during the storm. Loop roads during this category will receive removal service.

**Materials:** Salt as needed. Storms in this category require all available snow plows from operating departments. Heavy equipment is not required for storms at this level. Road treatment primarily consists of applying salt as needed during the storm. Plowing may be required depending upon the weather conditions. If plowing is required, primary (red priority) snow routes are maintained throughout the storm. Lower priority routes are maintained as the storm abates or ends. Multiple work shifts may be required for this type of storm. Additional supervision may also be necessary to manage the storm response.

## Category 3 – Predicted Snow Fall Amount : 6” to 12”

**Service Level:** Maintain primary (red) and secondary (blue) routes during storm. Secondary (blue) priority routes may be delayed depending upon weather conditions. Lower priority routes require service at the end of the storm.

**Materials:** Salt and Sand as needed. Storms at this level require all available equipment including snowplows and heavy equipment. Typically, multiple work shifts over more than one day are needed to maintain the road system in passable condition. Road treatment may initially consist of applying salt at the onset of the storm, but typically progresses quickly to snow plowing with spot application of more material. During the storm, primary (red priority) snow routes are the only routes maintained. Secondary (blue priority) routes are treated and/or plowed as personnel and equipment are available after the first priority routes are completed. Lower priority routes are plowed after the snow has ceased and after the primary.

## Category 4 – Predicted Snow Fall Amount : 12” or more

**Service Level:** Primary (red) routes remain passable during storm event. Secondary routes are plowed after the main arterial streets are fully opened and passable. Residential streets may be plowed after the storm if determined by the Public Works Director.

**Materials:** Salt and Sand as needed. This category includes storms with sufficient snowfall to cause a major disruption in the transportation system. Major roadways including interstate highways may be closed. Businesses and schools may also be closed. During the storm, primary (red priority) routes will remain passable. All other routes will be plowed as personnel and equipment permit, typically after snowfall has ceased. Lower priority routes are plowed after the snow has ceased and after the primary. City may include contracted snow removal personnel and equipment.

### **Complaints, Concerns and Requests**

If you would like to register a complaint, state a concern or request snow removal service please contact the City Hall at 906-863-2656 or the Department of Public Works Office at 906-863-1736.