



# City of Manitowoc Snow and Ice Control Manual



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# Snow and Ice Control

## Snow and Ice Control Procedures – Streets and Sanitation Division (DPW)

- No activity between the hours of 7 PM and 4 AM. The only exception is freezing rain or glare ice areas causing extreme traffic hazard areas.
- Operations Division Manager or On-Call Supervisor will make decision for 4 AM start
- Areas that are treated for salt routes include bus and truck routes, arterial streets, state highways and county trunks within the City's jurisdiction
- City owned parking lots, sidewalks and parks will also be plowed and treated
- Operations Division Manager or On-Call Supervisor will make decision to treat intersections, hills and curves on side streets after salt routes have been completed. Side streets are not plowed unless we are doing a general plow.

## Level of Service

Winter weather operations are categorized according to the type of storm and classification of the road. It is our goal to maintain the roads in a drivable condition and quickly return them to normal conditions according to the priority classifications established below.

Priority 1	Main streets/salt routes (arterials)	Clean, dry pavement in driving lanes
Priority 2	Secondary streets (collectors), Downtown parking lanes	Snow and ice hard pack
Priority 3	Low volume residential through streets (locals), dead ends, cul-de-sacs and alleys	Snow and ice hard pack

## Salting Operations

When snowfall of less than three inches has accumulated, salt and/or plowing may be utilized. Primary roads may be completely cleared of snow and salt applied. Secondary roads will not be plowed but will have salt applied at intersections, hills and curves.

During regular working hours, the Operations Division Manager normally will be responsible for this operation and the decision to salt shall be approved by the Director of Public Infrastructure.

Outside normal working hours, the On-Call Supervisor for the Department of Public Infrastructure will be responsible for this operation and determination of action. They shall brief the Director of Public Infrastructure via text message when this determination is made.

## General Plowing Operations

Plowing takes place when a snowfall greater than three inches has accumulated. Under any circumstance, plowing will not commence until the Director of Public Infrastructure has authorized action. If the Director is not available, then the Mayor shall determine the action. If the Mayor is not available, the Operations Division manager shall determine action and continue to attempt to contact the Director or Mayor.

Outside normal working hours the On-Call Supervisor contacts the Operations Division manager. The Operations Division manager will contact the Director of Public Infrastructure. If the Director of Public Infrastructure is not available, the Mayor shall determine the action. Before calling, the On-Call Supervisor shall know the snowfall accumulation and the forecast and have a recommendation of action prepared for approval.



**SNOW & ICE REMOVAL**  
**MANPOWER AND EQUIPMENT ANALYSIS**

Under ideal conditions, we have 47 pieces of equipment, which requires 45 people to fill for plowing or loading snow. Current operations split the use of this equipment/personnel into two shifts/days. For 2018/19, 34 staff will be available to clear the city's 16 street routes, 2 parks/parking lot routes, Evergreen Cemetery, 34 city alleys, 4 sidewalk routes and 1 hand shoveling route. We also rent 4 graders to assist in plowing the City's 16 street routes. This allows us to plow the City once in 8 to 10 hours following an average snowfall of 4-6" (this does not include removal of snow).

Snow loading and removal operations are conducted with a combination of Internal Service Fund and contractor rented equipment. Along with a fleet of up to 20 rented trucks for snow hauling, two loaders are rented to push up snow at the dumping areas. Up to a total of 8 DPW trucks assist in snow hauling after general plowing has been completed.

Snow loading and removal operations for the City's major downtown routes are usually completed the first and/or second nights (the day of and/or the following day of the snow storm).



## CITY EQUIPMENT AVAILABLE FOR PLOWING

- 7 - TRUCK (3/4 ton) with reversible plow (alleys/parking lots/parks)
- 2 - TRUCKS (2-1/2 ton) with reversible plow
- 10 - TRUCKS (2-1/2 ton) with reversible plow & wing
- 6 - TRUCKS (tandem) with reversible plow & wing
- 1 - 4-WHEEL DRIVE TRUCK with plow & wing (V's available)
- 3 - GRADERS (three with wings {available})
- 8 - TRACTORS (2 w/plows, 2 w/buckets, 4 V's w/3 blowers available)  
(Alleys, sidewalks & downtown crew)(INCLUDES TRACKLESS)
- 2 - END LOADERS with blowers (loading trucks)
- 2 - BACKHOE with buckets (Parking lots, etc.)
- 1 - TRUCK (2-1/2 ton) with reversible plow & anti-icing tank with spreader
- 2 - ENDLOADER with plow
- 1 - TRUCK (1-ton) with reversible plow and salter
- 1 - TRUCK (1-ton) with reversible plow
- 1 - TRUCK (1-ton) with salter

47 Total equipment

## MANPOWER AVAILABLE

EXCLUDES: 3 Mechanics, 2 Office Personnel

- 18 - STREETS DIVISION
- 2 - CEMETERY DIVISION
- 5 - PARKS DIVISION
- 4 - BRIDGETENDERS (Route 1 parking lots)
- 5 - TEMPORARY PERSONNEL
- 34 - TOTAL AVAILABLE STAFF

## CONTRACTOR EQUIPMENT AVAILABLE FOR PLOWING

- 4 - GRADERS (with operators) (2 with wings)
- 2 - END LOADERS (with operators) (snow dumps)

### NOTES

1. We have, and in an emergency could use, another blower to load trucks. This is mounted on an end loader.