

**CITY OF MINOT
SNOW REMOVAL PLAN
November 2017**

1.0 GENERAL

This plan has been written to provide information regarding snow removal procedures and policies. The plan provides guidance, while maintaining flexibility that will allow the streets to be cleaned as quickly and efficiently as possible, while providing the best service possible to citizens and businesses in Minot.

1.1 OBJECTIVE

The primary objective of the Public Works Department is to provide for the safe and orderly movement of vehicular traffic throughout the City during all weather conditions including severe winter storms. Although City streets, including major arterials, may be temporarily closed during extremely severe conditions, the Department will use available resources to prevent closing or keep the duration of closures to a minimum. Although the Department strives to keep all lanes of traffic moving, during extreme conditions travel may be limited to one lane of vehicular traffic in each direction.

2.0 PERSONNEL

The street department is under the direct supervision of the Street Superintendent. The department consists of two foremen, sixteen heavy equipment operators, and thirteen light equipment operators. During a snowstorm or high winds, snow removal operations continue 24 hours a day. There will normally be enough operators for each motor grader. The remaining operators will use loaders, sanders, truck mounted plows or other equipment that is necessary to remove snow from city streets. In an emergency, personnel will be brought in from other departments to continue snow removal until the emergency is over.

3.0 EQUIPMENT

The following equipment is utilized during snow removal operations:

- 1) Eight motor graders
- 2) Three truck plows
- 3) Three front-end loaders
- 4) Four skid steer loaders
- 5) Seven truck mounted sanders and two brine tanks
- 6) Two snow blowers mounted on front end loaders

Each motor grader is equipped with a snow gate. The snow gate is used to **limit** the amount of snow discharge in driveways and around mailboxes. The snow gates are only effective for low to moderate snow accumulations. Heavy snow

accumulations will go over the top of the snow gate. Wet snow will put too much pressure on the snow gate and will eventually break it.

Truck plows are used in areas where there are a limited number of driveways. These plows are effective in removing snow quickly but the snow discharge cannot be controlled and are not normally used in most residential areas.

Skid steer loaders are used on City owned or maintained sidewalks. Front-end loaders are used to remove snow from intersections, cul-de-sacs, and areas where heavy drifting has occurred. Truck mounted sanders are used to provide additional skid resistance when road conditions warrant. The snow blower is used for hauling snow and removing snow from blocked areas.

4.0 SNOW REMOVAL OPERATIONS

Preparing a snow removal plan that encompasses all scenarios is virtually impossible. Therefore, this plan attempts to provide as much flexibility as possible while addressing the needs of the public.

4.1 SNOW ROUTES

Snow routes were developed to allow the Public Works Director to designate a snow emergency and require all parked cars to be removed from these designated routes. If vehicles are not removed they will be towed and impounded. The snow route system has been in effect since the fall of 1993. Following is a list of the adopted snow routes. (See attached map):

- 1) Broadway
- 2) Burdick Expressway
- 3) 37th Ave South from 30th St SW to 13th St SE
- 4) 16th St West from 37th Ave South to 36th Ave NW
- 5) 21st Ave NW from Broadway to 35th St NW
- 6) 6th St West from 19th Ave SW to 5th Ave NW
- 7) 8th St West from 5th Ave NW to 30th Ave NW
- 8) 30th Ave NW from Broadway to 83 Bypass
- 9) 3rd St East from 14th Ave SE to Airport Road
- 10) Airport Road from 3rd St NE to Broadway
- 11) 2nd St East from 14th Avenue SE to 20th Ave SE
- 12) 11th Ave South from 16th St SW to Hiawatha
- 13) Hiawatha from Valley St to 20th Ave SE
- 14) 16th Ave South from 16th St SW to 13th St SE
- 15) 4th Ave North from 83 Bypass to 3rd St NE
- 16) Railway Ave from 3rd St NE to 27th St NE
- 17) University Ave from 16th St NW to 3rd St NE
- 18) 31st Ave South from 16th Street SW to 13th Street SE (then East to cul-de-sac)
- 19) 27th St NW from 4th Ave NW to 19th Ave NW
- 20) 36th Ave North from 16th St NW to 13th St NE
- 21) 27th St East from Valley St to Railway Ave
- 22) 55th St NE from CO 12 to 20th Ave SE

- 23) 35th Ave SE from 13th St SE to 21st St SE
- 24) 13th St SE from Valley St to 37th Ave SE
- 25) Valley St from Burdick Expy to 13th St SE
- 26) 20th Ave South from 16th St West to 13th St East
- 27) 2nd Ave SW from 6th St SW to 30th St SW
- 28) Central Ave SW from 16th St west to 30th St West
- 29) 20th St NW from 4th Ave NW to 21st Ave NW
- 30) 19th Ave NW from Sunset Blvd to 83 Bypass

4.2 OPERATIONS

Snow routes are made passable prior to moving into other areas. Once the snow routes are open, snow removal operations will continue as follows:

- 1) Motor graders will start on hillside streets and school areas. School areas will be the immediate block around the school and any major route to a school.
- 2) Residential areas/Central Business District
 - a. Residential Areas - two motor graders per quadrant of the City. Work will begin in 3 of the 4 quadrants and the fourth quadrant will be cleared when one of the first three quadrants are complete. One motor grader will roam and be used for emergency calls.
 - b. Central Business District – All operations will take place at night (*per ordinance*) and will happen in conjunction with the residential areas. The residential areas will be worked during the day and the Central Business District will be worked at night as early as possible after the snow routes, hillside streets and school areas are completed. Streets in the Central Business District will be cleared on Mondays, Wednesdays & Fridays. Avenues will be cleared on Tuesdays, Thursdays & Saturdays.
 - c. Central Business District alleys will be cleared and sanded as necessary to facilitate the business operations for the Central Business District.

4.3 NORMAL SNOW ACCUMULATIONS (4" - 8")

Snow removal operations will proceed as outlined in section 4.2. The crews will work 12-hour shifts until finished.

4.4 HEAVY SNOW ACCUMULATIONS (High Winds or 8" of Snow or More)

Heavy snow accumulations will usually require 24-hour snow removal operations. If City personnel cannot keep up with the storm, private contractors will be utilized. Intense storms are contingent upon many factors such as high winds, heavy snow accumulations, and storm duration. When private contractors are

used, they will be given specific areas to work in. Snow gates will be ineffective and will not be used during heavy accumulations. The streets will not be cleaned from curb to curb by the contractor. When roads remain impassable due to strong wind and heavy snow, the City will put barricades out to close the road until the wind subsides. The primary emphasis will be to keep the streets passable, until the emergency is over. Then the operations will continue as outlined in section 4.2.

4.5 CUL-DE-SACS

Snow from cul-de-sacs will be removed by using front-end loaders and motor graders. Snow will be stockpiled in the center of the cul-de-sac, vacant lots or within the berm of the adjacent property owners. If snow is stockpiled in the middle of the cul-de-sac, it will be removed as conditions and time permit. Parking in cul-de-sacs may be restricted in order to provide access until the snow is removed.

4.7 ALLEYS

Once all City streets have been cleaned, operations will move into the alleys. A front-end loader will make one pass through the alleys. Any snow accumulations outside the path will be the responsibility of the adjacent property owner. Except for emergency situations the alleys will be cleaned last.

4.8 DRIVEWAYS AND MAILBOXES

Driveways may become impassable and mailboxes inaccessible due to snow removal operations. When this occurs it is the responsibility of the property owner to remove the snow from the driveway and the mailbox. Once all other snow removal operations are completed snow will be removed around mailboxes to allow for mail delivery.

4.9 SANDING

The City uses a salt and sand mixture mixed as 10 parts sand to 1 part salt. Sand trucks will be dispatched as conditions warrant. The objective will be to cover all the major intersections, hillsides and the bus routes. Sand trucks will respond to requests from the public and the Minot Police Department. Two people will be on call during the winter months for sanding and other snow removal operations as needed.

4.10 HAULING OF SNOW

After the storm has subsided and all streets have been cleaned, night crews will begin hauling snow from the central business district. Snow will be hauled according to the alternate street parking in the downtown area. When conditions

warrant, snow will be hauled from bridges, Broadway, Burdick Expressway, 4th Ave NW, 3rd St East, and 16th Street SW.

4.11 SIDEWALKS

Snow will be removed on City owned or maintained sidewalks with skid steer loaders. Private sidewalks are the responsibility of the property owner as stated in the City of Minot Code of Ordinances §28-42: “ ***The occupant of every premises fronting upon any street within the city and the owner of any unoccupied premises fronting on any such street shall keep the sidewalk in front of his premises reasonably free from snow and ice and shall after and during snowfall clear the snow off the sidewalks before 10:00 a.m. each day, and on corner lots where the premises run to an alley, the owner of the property shall keep one-half (½) of the alley crossing adjoining the premises free from snow.***”

When a private sidewalk is located adjacent to the street, snow may be plowed onto the sidewalk. If this happens, City crews will remove the snow from the sidewalk as time and conditions permit.

4.12 SPRING RUN-OFF

Late winter and early spring the snow removal crews will clear and haul snow from drainage areas and catch basins. This is to facilitate run-off and try to avoid ponding and property damage problems.

4.13 PRIVATE PROPERTY USING STREET FOR SNOW REMOVAL

The City of Minot Code of Ordinances §28-42 states: “***No person owning, occupying or using any private property in the city shall haul, move on to or dump on any street, alley or public way (drainage easement), including sidewalks, any snow which is accumulated on the private property. It shall further be unlawful for any person, firm or corporation to shovel or pile snow around any fire hydrant which in any manner might tend to obstruct the hydrant or to reduce access to the hydrant.***”

The removal or dumping or piling of snow on streets, alleys or public thoroughfares, excluding sidewalks, when the snow is accumulated on public sidewalks or public boulevards is not prohibited providing no hydrant is obstructed thereby.”

5.0 CONCLUSION

Different weather conditions will require this plan to be modified as needed by Public Works personnel. The street department will try to be flexible and respond to special conditions as much as possible.