

## **Activity 170 Snow Removal/Snow Pole Maintenance**

### Description

Activity 170 involves removal of snow, ice, or slush from the roadway and shoulders, by plowing, blading, or blowing, to the extent practicable, to allow and maintain movement of traffic. It also includes installing, maintaining, and removing snow poles.

### General Instructions

Refer to Activity 174 for winter road patrol.

Refer to Activity 171 for application of sand.

Refer to Activity 176 for application of anti-icing or deicing products.

Refer to Activity 301 for work done in designated Winter Recreation Parking Locations (Sno-Parks).

Refer to Activity 137 for snow removal in rest area parking lots, etc., that are outside of the normal vehicle path through the location.

Refer to Activity F03 for snow removal at building locations.

Except as funded differently in the performance budget or as precluded by more critical work or situations, control and remove snow and ice on the State Highway system as described in the:

- District Winter Operations Plan.
- ODOT *Desired Conditions of Maintenance Features on State Highways*.

Install snow poles, as appropriate, in areas of heavy snowfall to help identify the edges of the roadway. Generally, install them before the first major snowfall and remove in the Spring. Snow poles may be:

- Attached to delineators or guardrail posts such that the attachment does not impair the function of the delineator or guardrail.
- Installed as freestanding installations. Install at the same distance from edge of pavement as delineators are installed in the area.

As conditions indicate, assure that proper signing is installed and removed on “Snow Zone” signs to indicate conditions and/or the need for traction tires or chains.

Identify, and mark as needed, the location of guardrail and other features in or adjacent to the roadway that may be damaged by snow removal work.

If blowing snow creates unacceptable drifting, it may be possible to control or maintain vegetation, under the appropriate activity in the Roadside and Vegetation Activities section, such that drifting is reduced. Consider installing snow fence in locations with continual drifting problems.

### Special Instructions

Operate a vehicle's rotobeam or other overhead warning lights when actively plowing snow. Turn on the rotobeam or warning lights in advance of starting the plowing operation to adequately warn other vehicles. Generally do not use the rotobeam or other warning lights for routine patrol work. Also refer to discussion in the Safety section of this Guide.

Take extra care when removing snow at crossings of railroads or other rail facilities. Assure that the snowplow blade is raised adequately to not damage the rail facilities. After clearing the rail area, check the rail area for damage and manually remove snow and other material to clear the rail area and not hinder the rail operation.

At bridges and other roadway structures, assure that snow removal operations do not damage or have not damaged the expansion joints in the structure deck. The Transportation Maintenance Manager should develop a listing of structures that have expansion joints at an angle to the roadway that is similar to that of a snowplow. Operators of snowplow equipment should take extra care, by slightly raising the snowplow or other means, to avoid potential damage to the snowplow and the structure at those locations.

Where a structure crosses a pedestrian or bicycle facility or another roadway, take extra care to avoid damage, injury, or other difficulty by:

- Reducing speed.
- Checking to assure that removed snow has not been unacceptably thrown onto the other facility. Remove any unacceptable amount that has been thrown there.

Extra care or special handling of snow may be needed at designated locations, including on some bridges, within cities, etc.

Avoid or otherwise control operations that would throw snow onto adjacent parked vehicles, traffic, pedestrian walkways, or buildings.

As appropriate and where needed, modify snow removal operations to minimize the amount of snow and other included materials that may be placed directly in waterways and other environmentally sensitive areas by the snow removal operation.

Where the snow removal operation places a berm of snow across another roadway or driveways, remove that berm as practical soon after to minimize inconvenience to users of those facilities. This may require additional equipment to remove that berm on heavily used abutting facilities.

Before operating a snow blower in parking lots or similar areas, attempt to determine if vehicles or other objects may be located in the work area and need to be avoided, protected, or removed.

#### Controlling Erosion, Sedimentation, and Pollutants or Contaminants

Plan and implement methods to control erosion, sedimentation, and pollutants or contaminants, including those discussed in the Control of Erosion, Sedimentation, and Pollutants or Contaminants section of this Guide and the ODOT *Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices*.

As appropriate, implement and maintain devices and processes including those described in the *Field Manual for Erosion and Sediment Control*.

#### Temporary Protection and Direction of Traffic

Assure that overhead and other warning lights on snow removal vehicles are clean and operating at all times during this work. Use the vehicle headlights at all times during the snow removal operation.

Plan snow removal work such that traffic is controlled by the snow removal vehicles or that traffic can utilize a lane where snow has been already removed. When possible, operate snow removal vehicles in tandem on multilane roadways to remove snow from all lanes in the same operation.

If an operating snow blower will encroach on a travel lane or if another operation will impact the movement of traffic, protect and direct traffic as addressed in the *Oregon Temporary Traffic Control* handbook.

#### Equipment

Use equipment identified in the District's Winter Operations Plan or as suitable for the work and situation.

#### Materials

Generally, no material is needed for the snow removal operation.

Installation or maintenance of snow poles may involve:

- Snow poles.
- Reflective bands.
- Attachment devices.

#### Work Method

For snow removal operations:

1. Plan snow removal activities as specified in the District's Winter Operations Plan.
2. Identify and implement appropriate methods to control traffic, if needed.
3. Identify concerns about impacts of snow removal on adjacent streams, waterways, etc. or over railroads or railroad tracks, on structures, and in urban areas and implement appropriate methods to control impacts.

4. Perform snow removal.
5. Remove snow berms from entrances to adjoining roadways, driveways, mailbox turnouts, etc.
6. Remove traffic control as appropriate.

For installation, maintenance, or removal of snow poles:

1. Implement appropriate traffic control.
2. Perform the needed activity.
3. Remove traffic control.
4. Dispose of waste material in an appropriate location.

Measurement of Accomplishment and Expenditure Account Type

Measurement is number of worker hours involved. Expenditure account type is Section EA. Designate a sub-job of 800 if the work involves bicycle path facilities.

- Charge all work to TEAMS Activity 170.