Winter Operations include the removal of snow and ice as well as applying deicing materials on all state highways and bridges. The heart of winter operations involve a skilled operator, and a dump truck equipped with a salt spreader, snow plow and often, a wing plow.

During severe winter storms, PennDOT also schedules at least one mechanic at each garage site to take care of any major equipment failures or breakdowns.

To prevent ice from building up on the road surface, PennDOT trucks spread a mixture of salt to melt the ice and small stones called anti-skid to provide traction. In some rural areas, PennDOT will limit salt and increase the amount of anti-skid spread over the road surface because salt depends on a certain amount of traffic to be fully effective.

During a storm, PennDOT will plow and salt major highways first before moving to the less traveled rural roads. During severe winter storms, equipment is often redirected from assigned rural routes to assist with plowing the more heavily traveled roads first.

Another weapon that PennDOT has in its winter arsenal is anti-icing. Anti-icing essentially involves treating the road with brine (salt water) before freezing precipitation starts to fall. The water part of the brine evaporates and the salt that remains helps prevent ice from forming a strong bond with the road surface.

PennDOT also has 62 facilities statewide capable of making their own brine. An average of more than 9 millions gallons of anti-icing material was used in the last five years.
PennDOT Maintenance First

Although Pennsylvanians see PennDOT crews on the roads year round, they may not always realize the scope or importance of all of the work we do.

More common maintenance activities such as Winter Operations don’t receive as much public attention as building new bridges or highways, but they are integral to the maintenance of the state’s 40,000 roadway miles and 25,000 bridges.

For more information, or for additional copies of the Maintenance First cards, please contact PennDOT’s Press Office at 717-783-8800 or your local PennDOT District Press Office.

_The Maintenance First Series was developed to help educate our customers about our more common maintenance operations._