

HIGHLIGHTS AND WHAT'S NEW

VDOTplows.org shows the status of plowing in northern Virginia neighborhoods. Once it snows more than two inches, Fairfax, Loudoun and Prince William residents can enter their address and a color-coded map shows whether plowing is underway, completed or not yet started in their neighborhood.

Budget: Last winter's budget for northern Virginia was \$63 million and \$152 million was spent. This year's budget is \$52 million. A new way of tracking state labor costs makes the figure seem lower, but overall the funds available for snow removal are about the same as last year. The region's snow removal budget is part of VDOT's overall statewide maintenance budget of approximately \$1.5 billion.

New brine application pilot in Chantilly: This winter, crews will test an additional brine method on several roads in the Chantilly area. Crews will pre-treat pavement with brine, plow when snow has fallen and then re-treat with brine. VDOT will test the effectiveness of this method, which has seen success in some Western states and could further reduce the need for salt.

Equipment: More than 4,000 trucks and plows are available and all are equipped with **automatic vehicle locator (AVL)** equipment. AVL allows VDOT to track where and when streets have been plowed. VDOT reimburses contractors for the \$600 unit. Other special equipment includes:

- A **jet-powered snow melter** for park-n-ride lots where snow piles can block parking spaces.
- Seven **high-pressure flush trucks** clear snow and ice around the bollards separating the I-495 Express Lanes and regular lanes.
- A **truck-mounted weather station** provides mobile measurements on road conditions such as surface, dew point, and air temperature, humidity and thickness of ice. This information helps ensure crews do not over- or under-apply chemicals.
- **Two super-sized front loaders** plow interstates with 20-foot wide blades during severe storms.
- **Speed-activated anti-icing equipment** dispenses the correct amount of material on the road.

- Crews continue to test six **all-weather cameras** mounted on the rear of truck cabs, that snap photos every few seconds en route to capture road conditions as well as whether and when a road was plowed.

Pre-treating: Crews pre-treat 850 lane miles of trouble spots including:

- 350 lane miles on interstates 66, 95, 395, and 495—including bridges and ramps prone to freezing such as the Springfield interchange and Capital Beltway at Route 1—with liquid magnesium chloride.
- 500 lane miles on major roads, such as Fairfax County Parkway, routes 1, 7, 28, 29, and 50, are pre-treated with salt brine. Brine (77 percent water, 23 percent salt) prevents ice from bonding to the road surface, reduces the need for salt to melt ice, is kinder to the environment and can lower snow removal time and costs.

Staging in subdivisions: Trucks are pre-positioned in subdivisions when two or more inches of snow is forecasted. Each subdivision has at least one dedicated truck, with the intent of assigning the same driver to that subdivision throughout the winter. In difficult subdivisions there will be more than one truck.

Dedicated fleet for Virginia State Police: During major snow and ice storms, VDOT provides a dozen contracted trucks to Virginia State Police, to quickly assist with specific emergencies and keep VDOT crews focused on assigned routes.

VDOT ROADS AND RESOURCES

VDOT is responsible for almost 18,000 lane miles in Fairfax, Loudoun, Prince William and Arlington counties (Arlington County maintains its own secondary roads). About half of those miles are highways, and half are local or neighborhood streets.

VDOT has 18 local maintenance headquarters throughout northern Virginia: one in Arlington, nine in Fairfax, four in Prince William and four in Loudoun.

Northern Virginia has more than 4,000 pieces of equipment available to clear a typical six-inch storm. Many of these pieces are pick-up trucks typically used for side streets, and can clear up to 18 inches of snow, depending on the type of storm.

340,000 tons of salt, 95,000 tons of sand, and 576,000 gallons of liquid treatment are also on hand. A **super-sized salt dome** at the Beltway and Van Dorn Street holds 22,000 tons—about three times the capacity of a typical dome—to help ensure crews don't run low during severe storms.

About 95 percent of VDOT crews and equipment are contracted. VDOT trains its own employees and contractors with classroom sessions and snow route visits. Contractors also receive company training, and many have long relationships with VDOT and are very familiar with VDOT's snow removal procedures.

Road priorities: In northern Virginia, VDOT has one snow-removal program for interstates and high-volume roads such as routes 1, 7, 15, 28, 50, and Fairfax County Parkway, and another for subdivisions (main neighborhood thoroughfares, residential streets, cul de sacs). Crews work on high-volume roads and in subdivisions concurrently. Within each of these programs, roads with highest traffic volumes are cleared first.

HOW NEIGHBORHOODS ARE ASSIGNED AND PLOWED

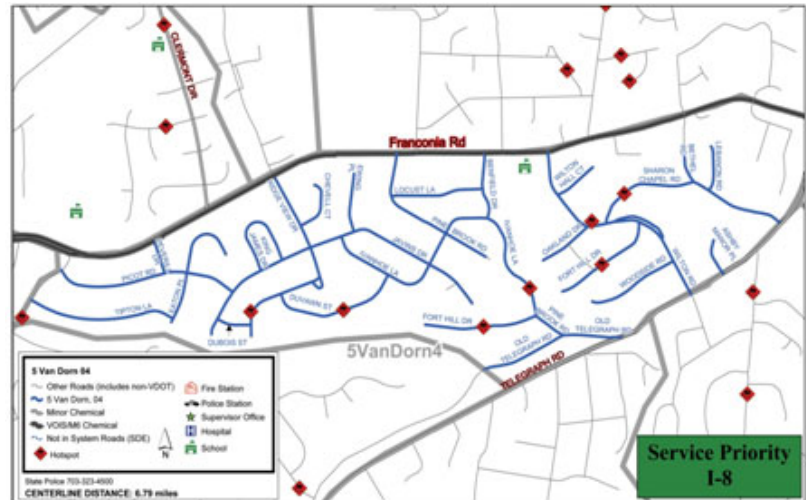
In Northern Virginia, VDOT clears 16,000 subdivision streets. Typically, crews begin plowing when two inches has fallen.

Main thoroughfares in subdivisions are repeatedly plowed during a storm. Once the storm has stopped and those roads are clear, crews work to make residential streets and cul-de-sacs passable.

A neighborhood street is considered passable when a path is drivable (with caution) for an average passenger vehicle. The road will not be cleared curb-to-curb or to bare pavement, and may remain snow-packed, uneven and rutted, especially if there is refreeze. Chemicals are not typically used in subdivisions, but crews will sand hills, curves and intersections as needed to provide traction. For most storms, one snowplow pass, about eight to ten feet wide, is made.

Local roads are divided among about 600 "snow maps" assigned to plow drivers. These maps are reviewed each year for hotspots, schools, police stations, hospitals and bus stops.

About 350 of these maps are for Fairfax County alone. Once drivers complete a minimum of one pass on the roads in a map,



One of 600 snow maps assigned to plow drivers.

they report that the route is complete.

VDOT judges subdivisions complete through processed snow maps, resident call volume, AVL and VDOT staff monitors.

While VDOT does not remove snow from sidewalks or trails, crews are asked to be mindful of pushing large amounts of snow onto these and driveways. Especially in major storms, it is often an unintended consequence of making roads passable.

When shoveling driveways, residents should shovel to the right facing the road, and leave the last few feet at the curb until the street is plowed, as the truck will push some snow back. Also, park in driveways or on the odd-numbered side of the street to allow plows room to pass.

To give crews a chance to finish their assigned snow maps, VDOT asks that residents wait a few days after the storm is over before reporting "missed" roads. Once crews have finished their routes, resident complaints are mapped to a database that feeds lists of locations to the area headquarters to check and address.

INFORMATION FOR DRIVERS AND RESIDENTS

- See the status of plowing in northern Virginia neighborhoods: www.vdotplows.org
- Follow @VaDOTNOVA on Twitter
- Report unplowed roads to novainfo@vdot.virginia.gov or 800-367-7623
- More snow information at www.virginiadot.org/travel/snow