



## Public Works Department 2025/2026 Snow and Ice Control Operations

# Overview

- ▶ The Public Works Department is responsible for:
  - ▶ **130 centerline or 539 plow lane miles of Village roadways.**
    - ▶ Includes sections of **Shermer, Pfingsten, and Forestview** under maintenance agreements with IDOT and Wheeling Township.
  - ▶ **5 Commuter Parking Lots/ Train station shelters/ Bike shelter/ and 10 Municipal Buildings and parking Lots.**
  - ▶ **45 miles of public sidewalk** (includes CBD, school zones and at least one side of all arterial/collector roads).

# Program Goals

- ▶ Plow and salt all roads within 6 hours after snowfall stops.
- ▶ Clear all commuter lots before 5:00 a.m.
- ▶ Clear all designated sidewalks concurrently or within a 1 to 2 days after the event. Heavy snowfall can take significantly more time.
- ▶ School Crossings and other key intersections are cleared next day.
- ▶ Haul out excess snow from CBD and commuter lots as soon as practical after major snowfall.
- ▶ Snow is taken to the Park District lot off Techny Rd

# Central Business District (CBD) Snow & Ice Control

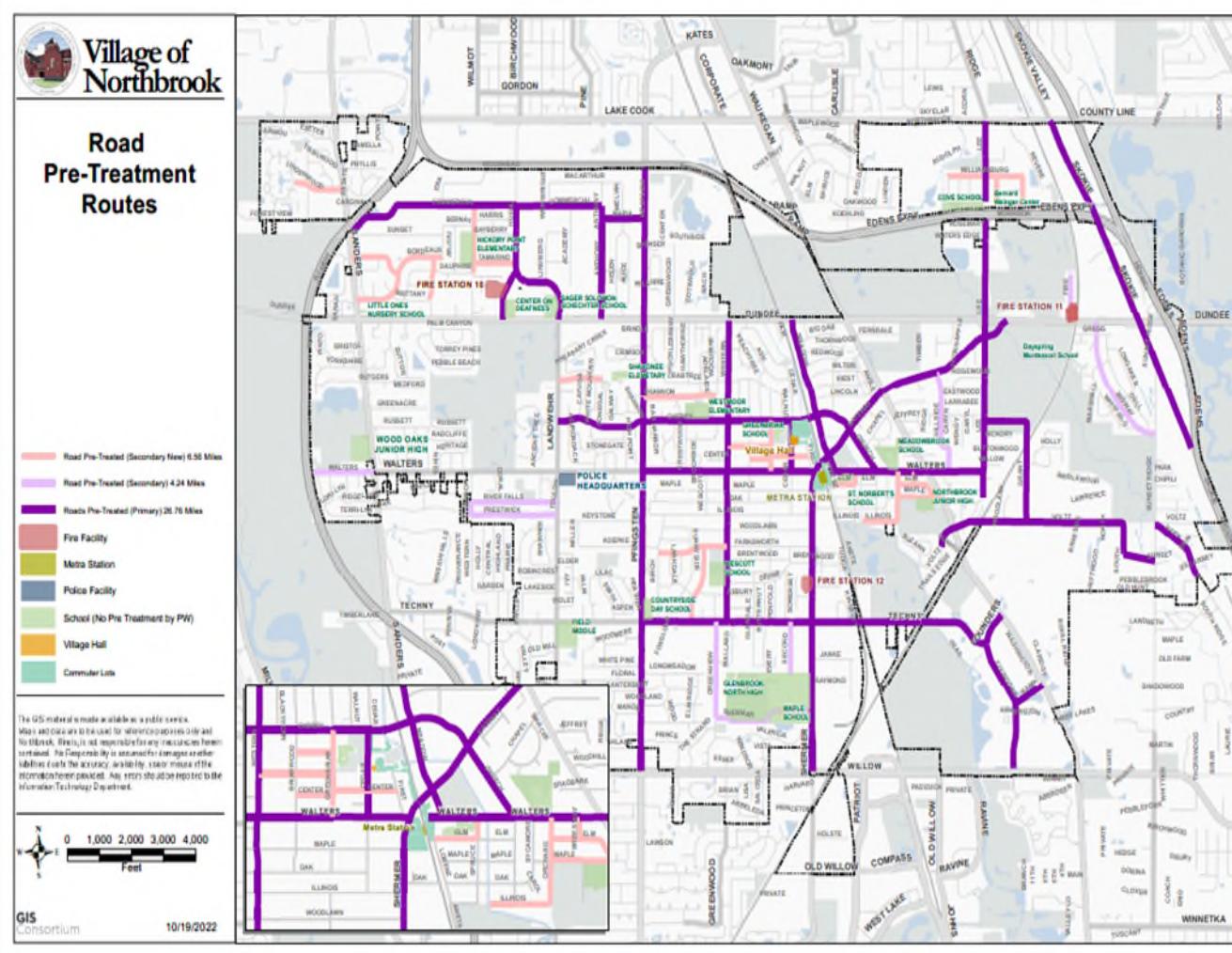
Care should be taken when plowing and/ or clearing snow. Watch for planters, bollards, lights, trees



# Forecasted Winter Precipitation (snow/Freezing Rain/Icing) (Pre-Planning)

- ▶ May entail pre-treatment of roadways and municipal parking lots (salting and/or liquid applications)
- ▶ In 2022/2023 we added an additional 11 miles to the Pre-Treatment plan, creating a Secondary Route.
- ▶ Primary Route - 26 Miles
- ▶ Secondary Route - 11 Miles
- ▶ In 2022/23, the Fleet Crew converted the (1,000 gallon) water trailer into a pre-treatment trailer and is towed by Unit # 209.

# Pre-Treatment Routes



# Snow/Ice Event

- ▶ Each event is different; therefore, the following steps are taken in advance:
  - ▶ Staff monitors weather conditions during normal business hours and from home when storms are in the forecast.
  - ▶ Police will contact the on-call supervisor for an after-hour event if they believe road conditions could become hazardous.
  - ▶ Snow and ice control operations normally start with 7 salt trucks applying 200-300 lbs. of salt per lane mile.
    - ▶ Supervisors will determine the salt application rate at the beginning of each event.
    - ▶ Liquid calcium chloride will be used each time salt is distributed.
    - ▶ Approximately ~two thirds of events are typically completed with just salt trucks.
- ▶ **Staff escalates to a full plowing event when accumulations reach 1.5 to 2 inches.**

# Routes

- ▶ 7 primary tandem sections, which include Techny Rd./Founders Dr.
- ▶ Each primary section has approximately 75 plow lane miles.
- ▶ This also includes all cul-de-sacs that can be done with a large truck.
- ▶ The Village has approximately 200 cul-de-sacs.
- ▶ Cul-de-sacs, dead ends, alleys and cemeteries are consolidated into two routes, and will be completed with pick-up trucks.
- ▶ Commuter/municipal building parking lots
- ▶ Sidewalks - 44 Miles plowed
- ▶ AS A REMINDER The Civic Building is no longer maintained by the Village

# Cul-De-Sac Section 8



**Village of  
Northbrook**

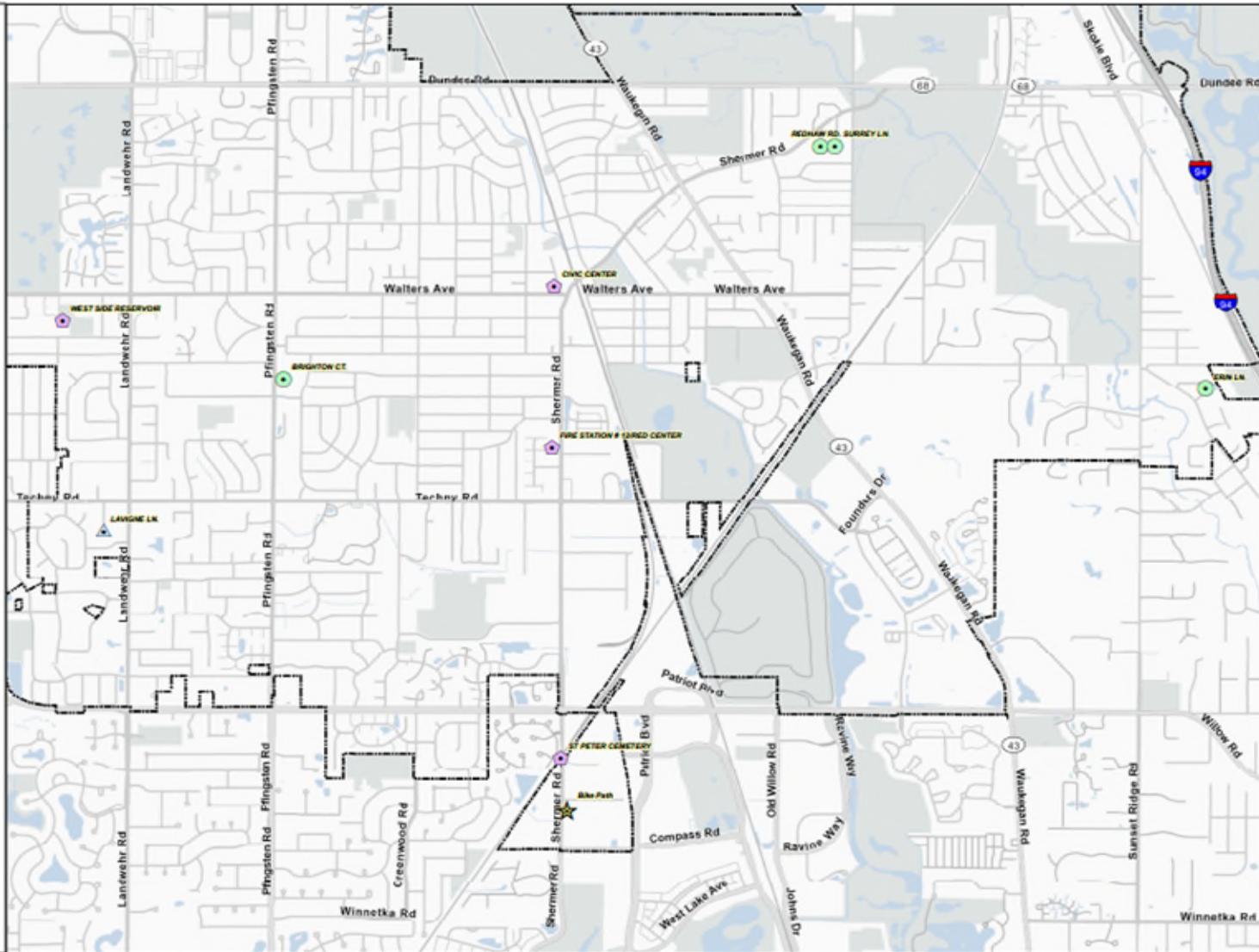
## Snow Removal

Areas that Require a  
Pick Up Truck to Plow Snow

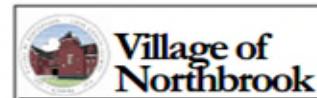
### Section 8

- Alley Ways
- Buildings (Lots & Access Rds)
- ★ Bike Path
- Cul De Sac
- ▲ Dead End

The GIS material is made available as a public service.  
Maps and data are to be used for reference purposes only and  
Northbrook, Illinois, is not responsible for any inaccuracies herein  
contained. No responsibility is assumed for damages or other  
liabilities due to the accuracy, availability, use or misuse of the  
information herein provided. Any errors should be reported to the  
Information Technology Department.



# Cul-De-Sac Section 9



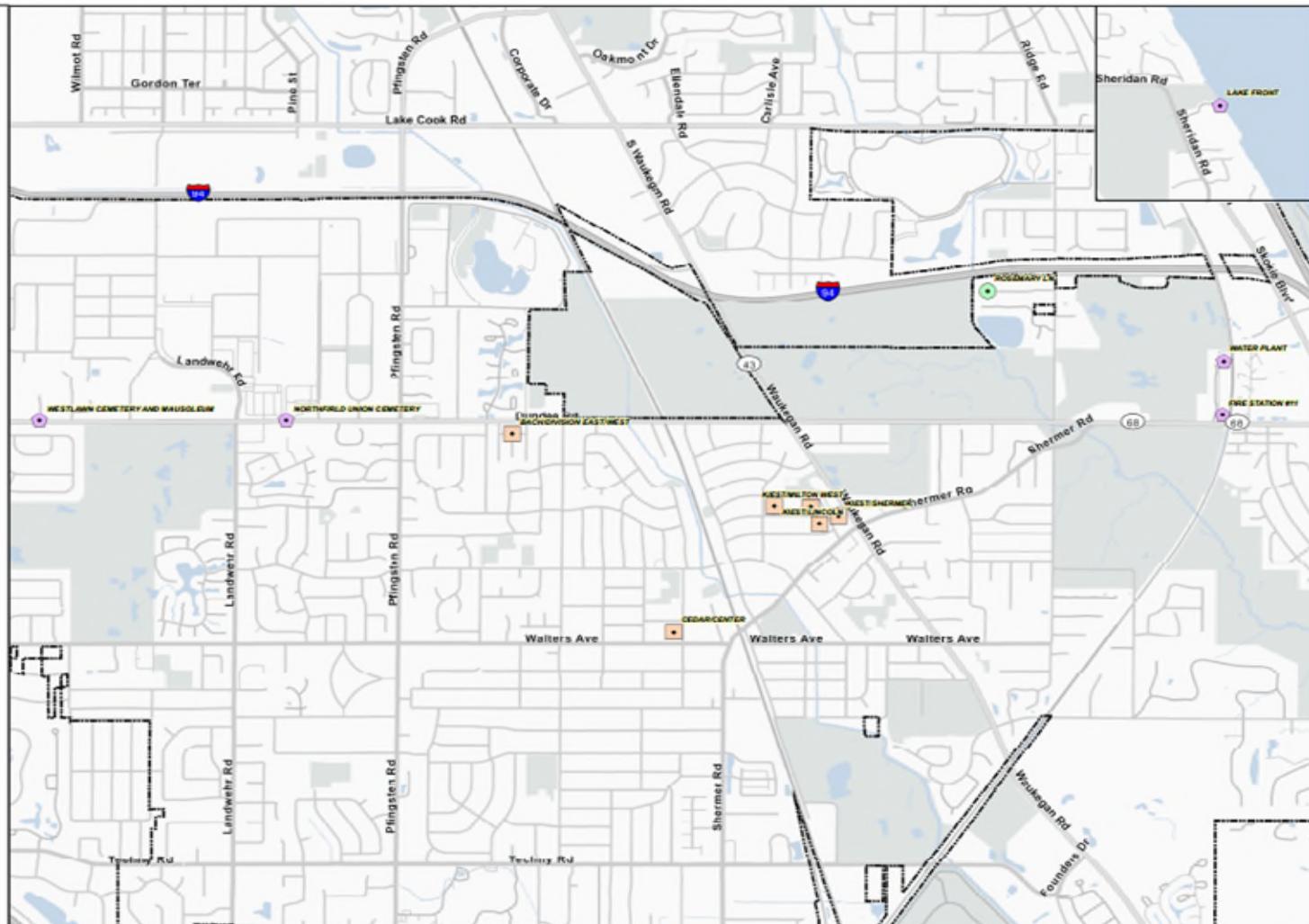
## Snow Removal

Areas that Require a  
Pick Up Truck to Plow Snow

### Section 9

- Alley Ways
- Buildings (Lots & Access Rds)
- Bike Path
- Cul De Sac
- Dead End

The GIS material is made available as a public service. Map and data are to the best of our knowledge accurate and up-to-date. Errors, omissions and discrepancies are not necessarily herein contained. The Governmentality is disengaged from damages or other liabilities (such as the accuracy, availability, use or misuse of the information herein provided). Any errors should be reported to the Information Technology Department.



# Sidewalks

- ▶ Prior to the revision of the sidewalk routes in 2021/2022, there were approximately 40 miles of sidewalk to be plowed with 2 - 3 staff and machines.
- ▶ 3 miles of sidewalk were added in 2021.
- ▶ Sidewalk routes have been broken out into three separate runs/routes
- ▶ East Route - **Blue** 18 miles
- ▶ West Route - **Purple** 22.8 miles
- ▶ CBD Route - **Orange** 3.8
- ▶ A total of 44 miles of sidewalk are to be plowed

# Sidewalk Routes



**Village of  
Northbrook**

## Snow Removal

### Sidewalk Snow Map

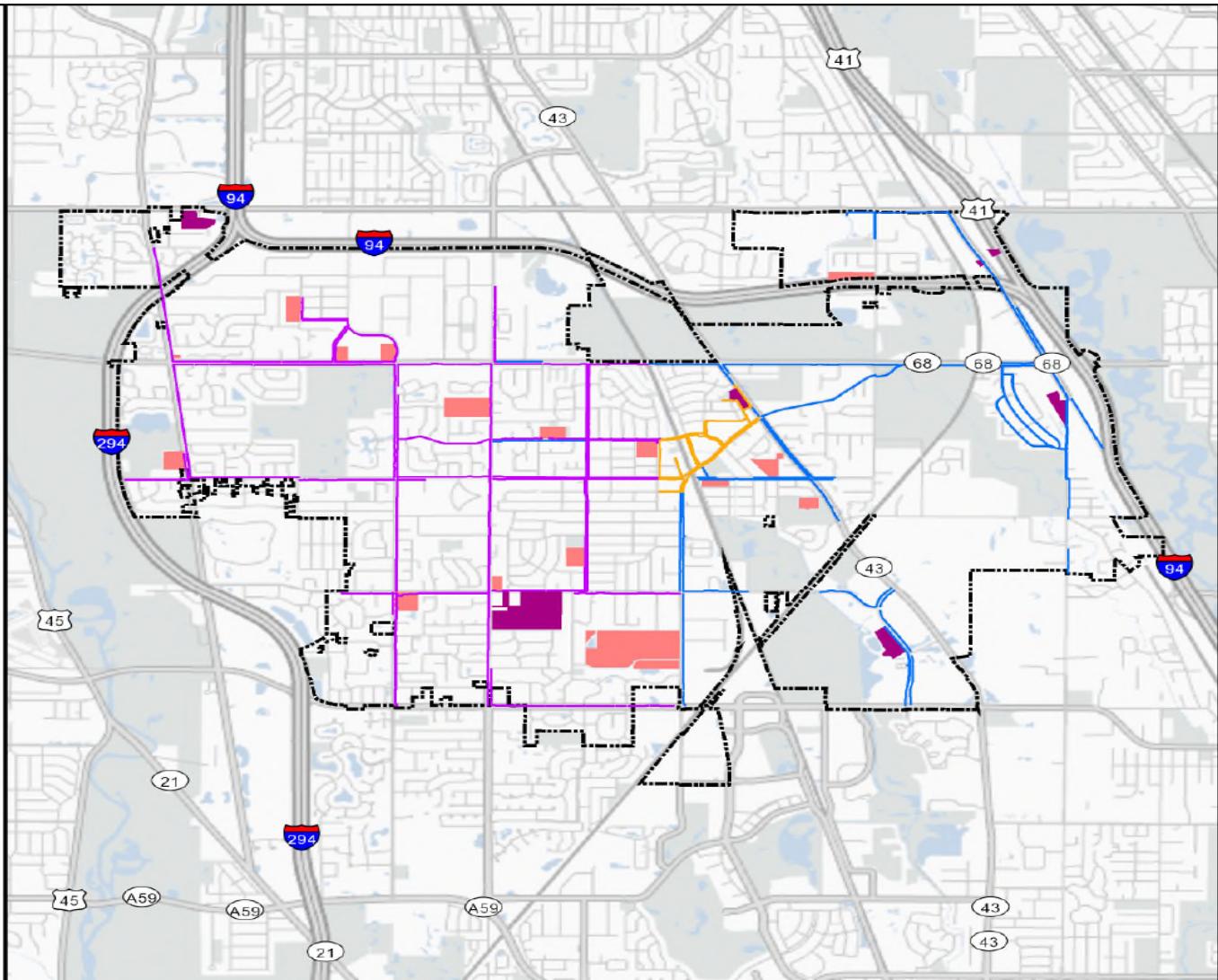
- Schools
- Nursing Homes
- Sidewalk Snow Removal Route CBD (3.8 miles)
- Sidewalk Snow Removal Route West (22.8 miles)
- Sidewalk Snow Removal Route East (18 miles)

The GIS material is made available as a public service. Maps and data are to be used for reference purposes only and Northbrook, Illinois, is not responsible for any inaccuracies herein contained. No responsibility is assumed for damages or other liabilities due to the accuracy, availability, use or misuse of the information herein provided. Any errors should be reported to the Information Technology Department.

0 1,700 3,400 5,100 6,800  
Feet

**GIS**  
Consortium

10/27/2021



# Central Business District (CBD)



## Village of Northbrook

### Snow Removal

#### Sidewalk Snow Map

#### CBD

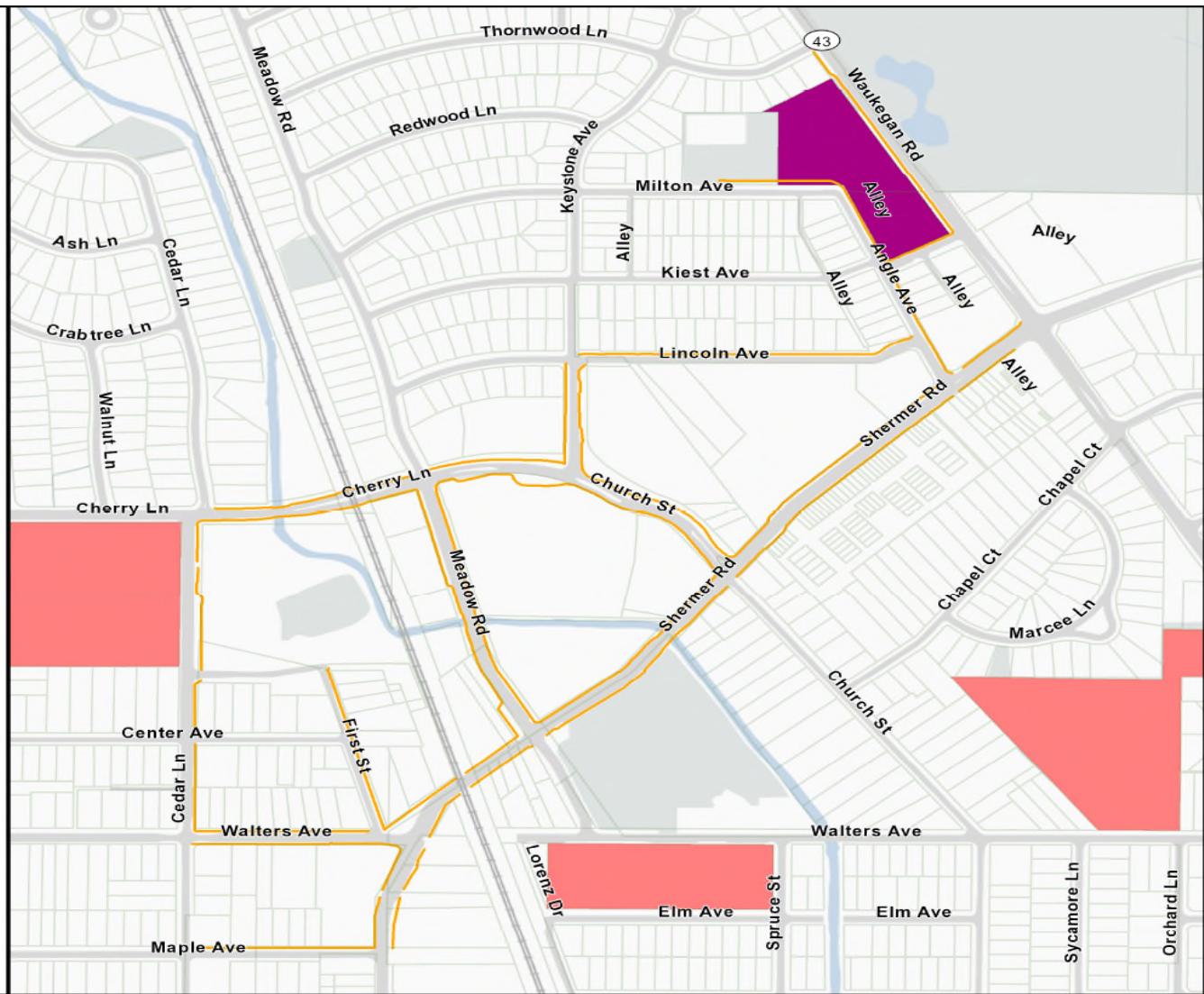


The GIS material is made available as a public service. Maps and data are to be used for reference purposes only and Northbrook, Illinois, is not responsible for any inaccuracies herein contained. No responsibility is assumed for damages or other liabilities due to the accuracy, availability, use or misuse of the information herein provided. Any errors should be reported to the Information Technology Department.

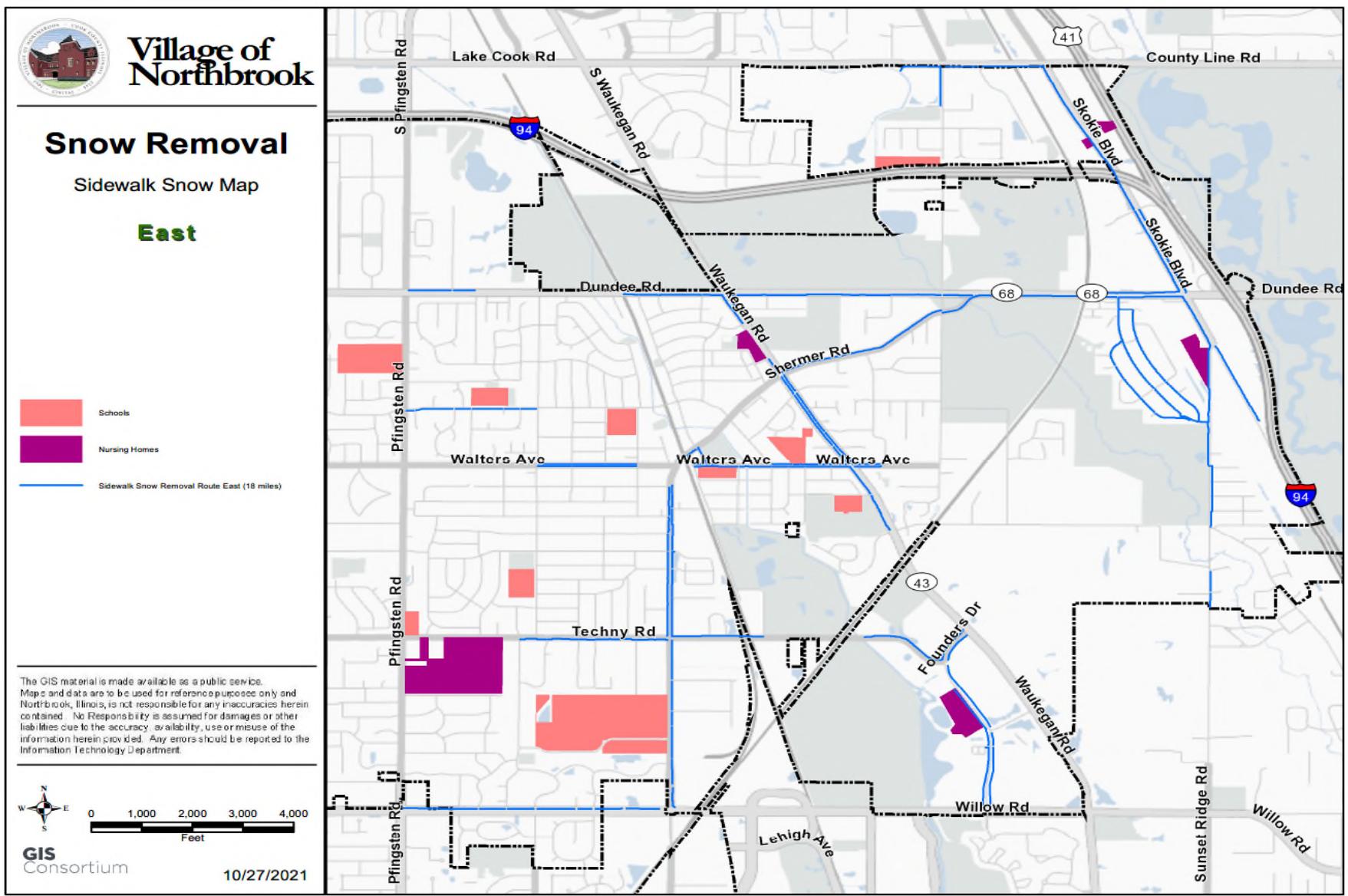


**GIS**  
Consortium

10/27/2021



# East Route



# West Route



**Village of  
Northbrook**

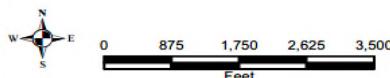
## Snow Removal

Sidewalk Snow Map

**West**

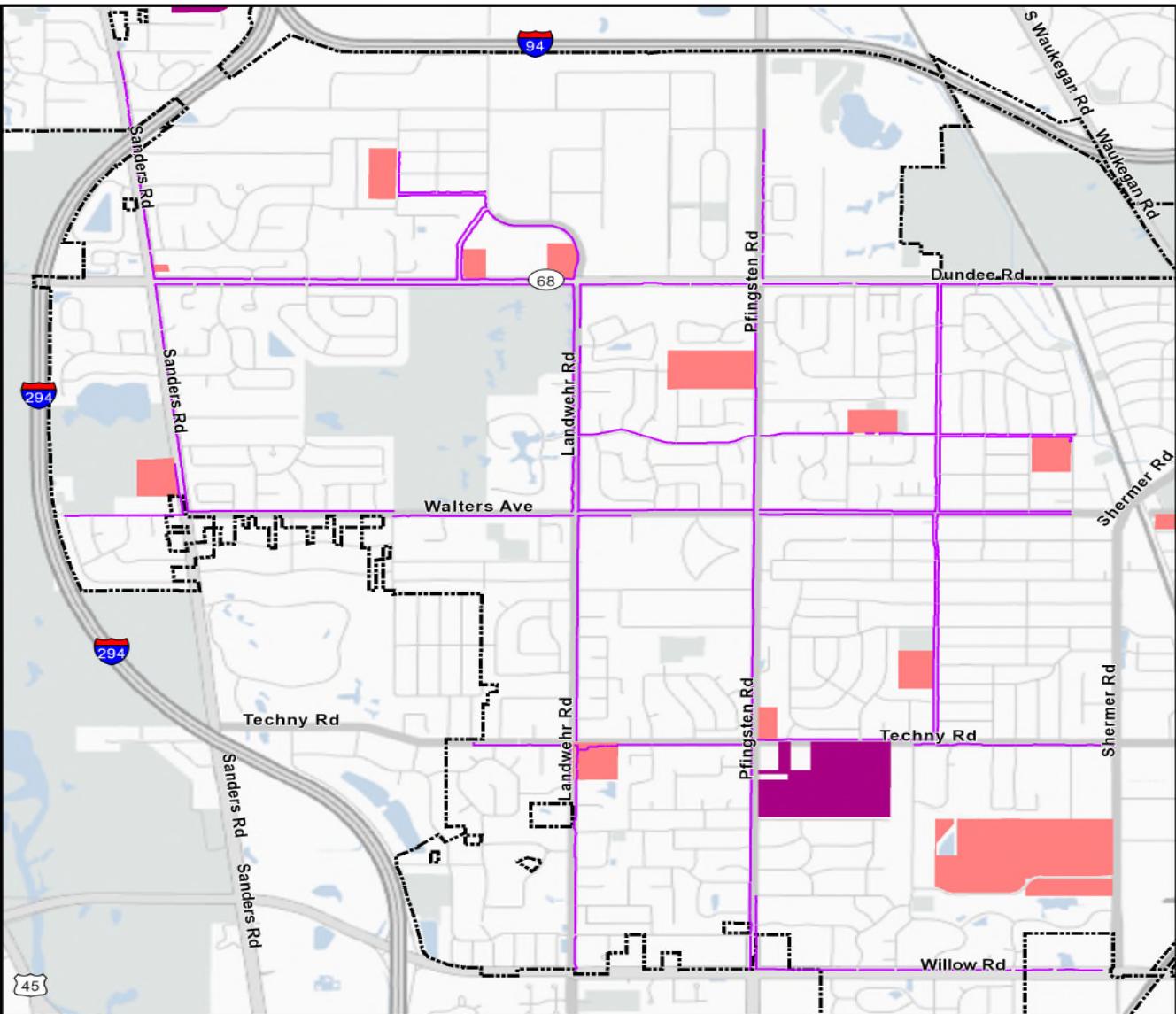
- Schools
- Nursing Homes
- Sidewalk Snow Removal Route West (22.6 miles)

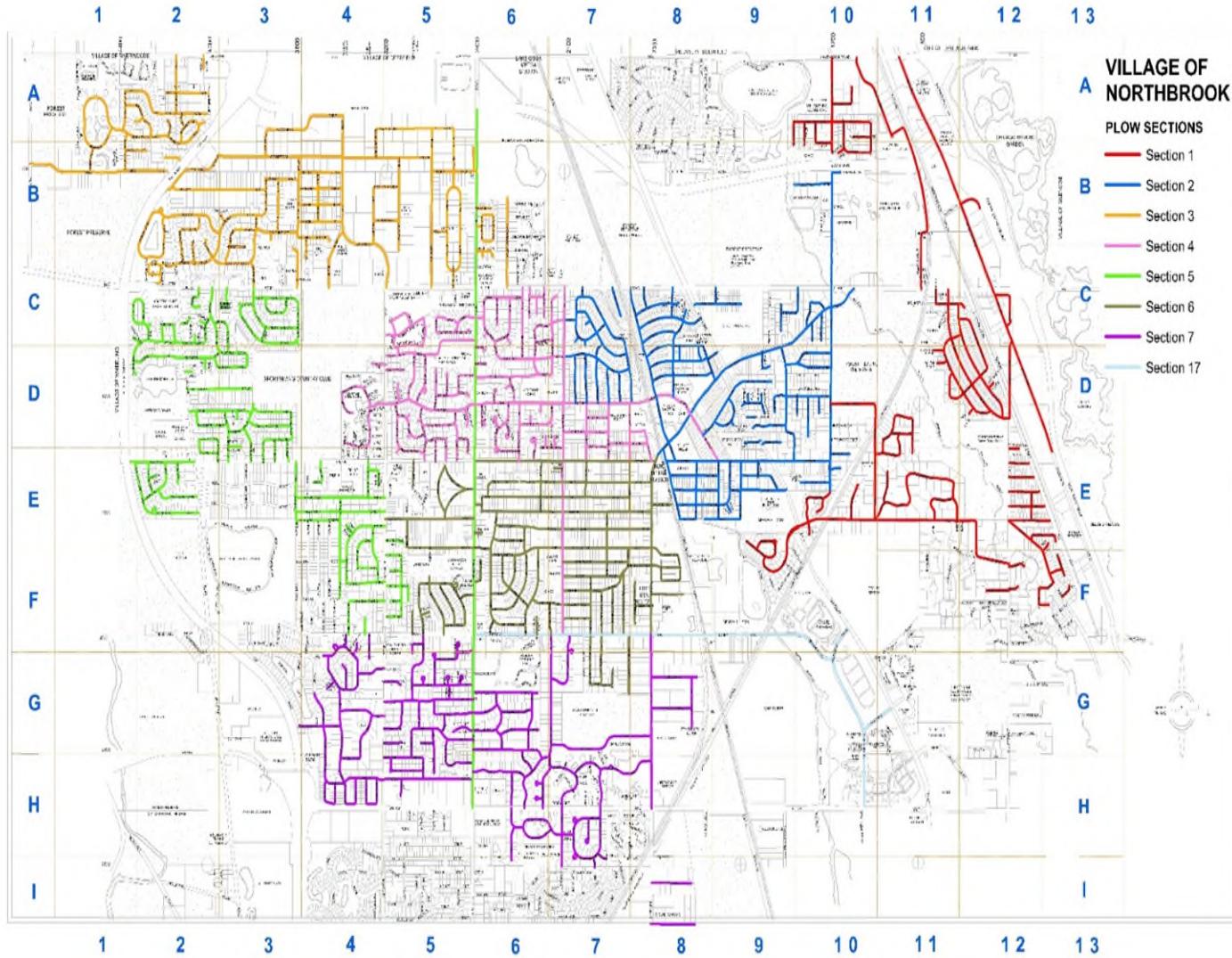
The GIS material is made available as a public service. Maps and data are to be used for reference purposes only and Northbrook, Illinois, is not responsible for any inaccuracies herein contained. No responsibility is assumed for damages or other liabilities due to the accuracy, availability, use or misuse of the information herein provided. Any errors should be reported to the Information Technology Department.



**GIS**  
Consortium

10/27/2021





# Personnel

- ▶ A typical plowing event requires approximately 30 staff members, including drivers, supervisors, mechanics and office staff.
- ▶ Prolonged events require additional drivers, including Public Works supervisors and other non-union personnel.
- ▶ Following a 12 or 16-hour maximum working shift, an 8-hour rest break is permitted to allow proper rest for staff.

# Snow Plowing Assignments

- ▶ **Section 1** - Units 221 and 229
- ▶ **Section 2** - Units 227 and 226
- ▶ **Section 3** - Units 241 and 223
- ▶ **Section 4** - Units 220 and 228
- ▶ **Section 5** - Units 243 and 225
- ▶ **Section 6** - Units 401 and 222
- ▶ **Section 7** - Units 403 and 402
- ▶ **Section 8** - Unit 408
- ▶ **Section 9** - Unit 421
- ▶ **Section 16** - Unit 242 and Bobcat or Pick-Up Truck

# Snow Plowing Assignments

- ▶ **Section 16** - Unit 242 and Bobcat or Pick-Up Truck
- ▶ **Section 17** - Unit 417 and 224
- ▶ **Section 18** - Units: Toolcat 1/Toolcat 2/Bobcat 276
- ▶ **Facilities** - Units: Toro Sidewalk Plow/Unit 300/Unit 412
- ▶ **Reminder** - Village shovels and salts the Metra Station bike shelter

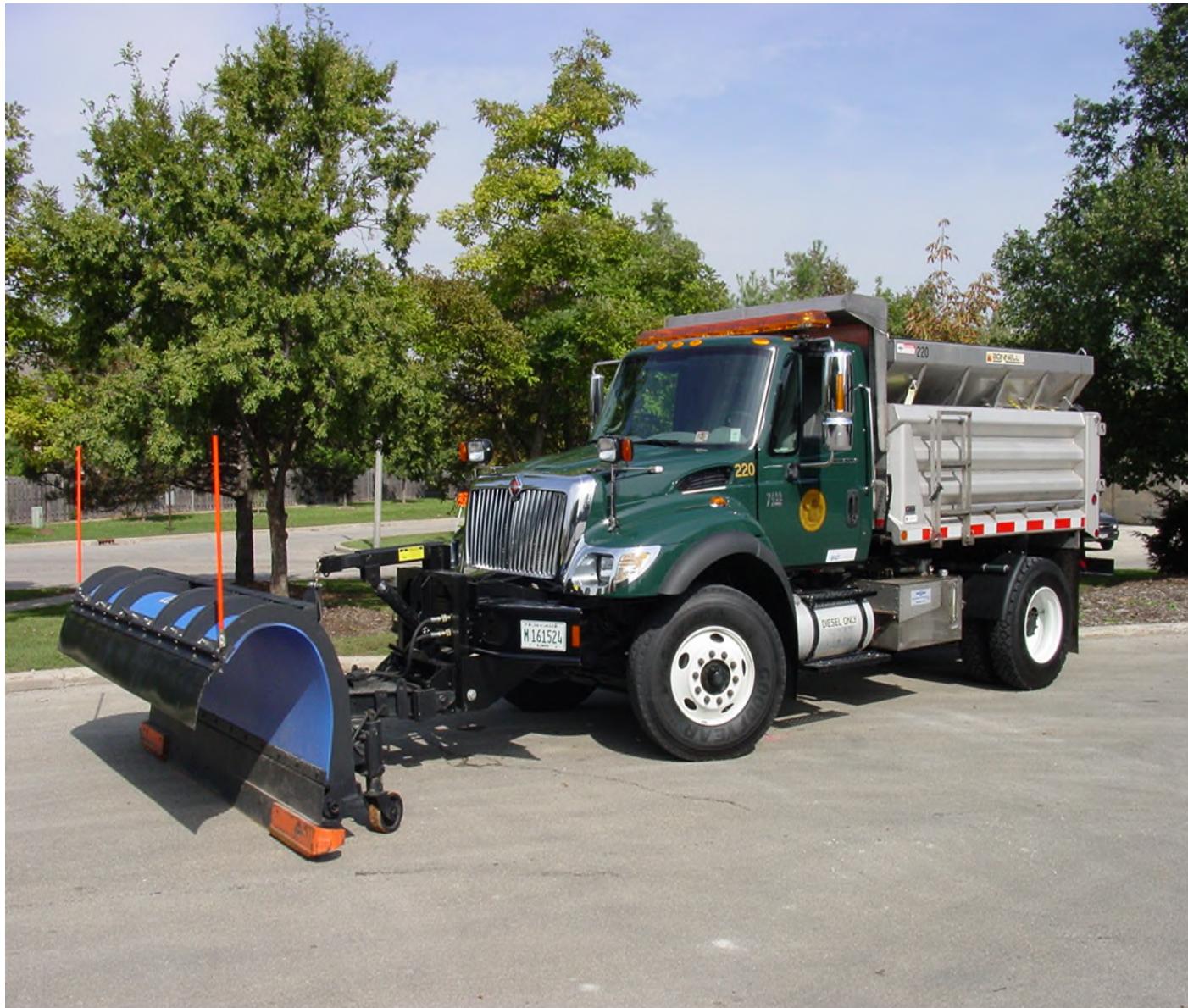
| Personnel Needed for Typical Plowing Event |           |
|--|-----------|
| Position                                   | Personnel |
| Plow Truck Drivers                         | 25        |
| Mechanics                                  | 2         |
| Supervisors                                | 2         |
| Office Staff                               | 1         |
| <b>Total</b>                               | <b>30</b> |

# Equipment

- ▶ A total of 30 pieces of equipment are used for a typical full scale plowing event.
- ▶ Supplemental equipment includes walk behind blowers/spreaders and a large diesel snow blower attached to the front-end loader.
- ▶ Public Works is fortunate to have high quality equipment and mechanics to keep the equipment up and running.
- ▶ Pre & post trip inspections of PW snow & ice equipment are completed by staff. These inspections include checking the oil, snowplow, cutting edge, lights, washer fluid level, etc.

| Number of Vehicles By Task        |                    |   |
|-----------------------------------|--------------------|---|
| Task                              | Number of Vehicles | Types of Vehicle                                    |
| Primary Plow Sections             | 18                 | Dump Trucks/ Front End Loaders                      |
| Cul-de-sacs, Alleys and Dead-ends | 2                  | Pick-up Trucks                                      |
| Parking Lots                      | 1                  | Front End Loaders                                   |
| Sidewalks/ Facilities             | 5                  | Pick-up Truck, Tractor, ToolCats, Skid Steer Loader |
| Support <sup>1</sup>              | 4                  | Pick-up Trucks, Front End Loader                    |
| <b>Total</b>                      | <b>30</b>          |   |

1. Support includes vehicles required for supervision and loading salt trucks.















# Materials

- ▶ On average, 2,587 tons of salt is used annually.
- ▶ Salt is ordered through the state bid process (via Morton Salt for FY 2025/2026)
- ▶ Liquid calcium chloride is used to lower the working temperature of the rock salt, which begins to lose its effectiveness at colder temperatures.
- ▶ Pre-treatment with “BIO-MELT” S-7 is used for better salt adhesion to roads. It accelerates the melting process, helps to prevent bonding and is more environmentally friendly.
- ▶ The Village continues to proactively work to use less rock salt for both economic and environmental reasons. When appropriate, staff rely on next-day rising temperatures and natural sunlight to help complete the snow-melting process, especially on secondary roads.

# Snowfall & Salt Usage by Fiscal Year (FY)

| FY                | 16/17 | 17/18 | 18/19 | 19/20 | 20/21 | 21/22 | 22/23 | 23/24 | 24/25 |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Inches of Snow    | 27    | 34.5  | 49.5  | 27.75 | 46.55 | 34.2  | 24.9  | 18.74 | 17.6  |
| Tons of Salt used | 1,650 | 2,939 | 3,100 | 1,942 | 3,392 | 3,200 | 2,700 | 2,580 | 2,366 |

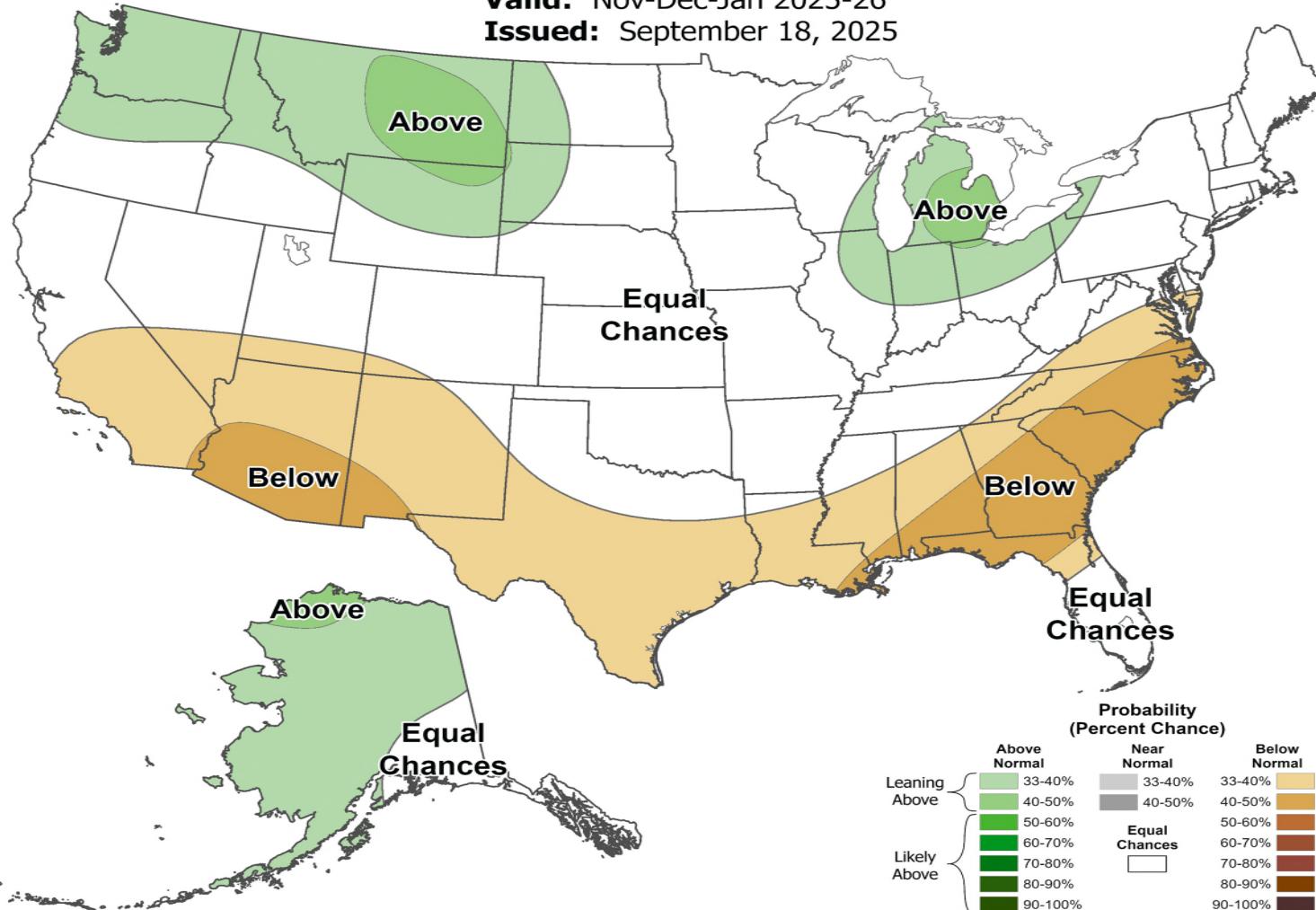
(NOAA) National Oceanic and  
Atmospheric Administration



# Seasonal Precipitation Outlook

**Valid:** Nov-Dec-Jan 2025-26

**Issued:** September 18, 2025



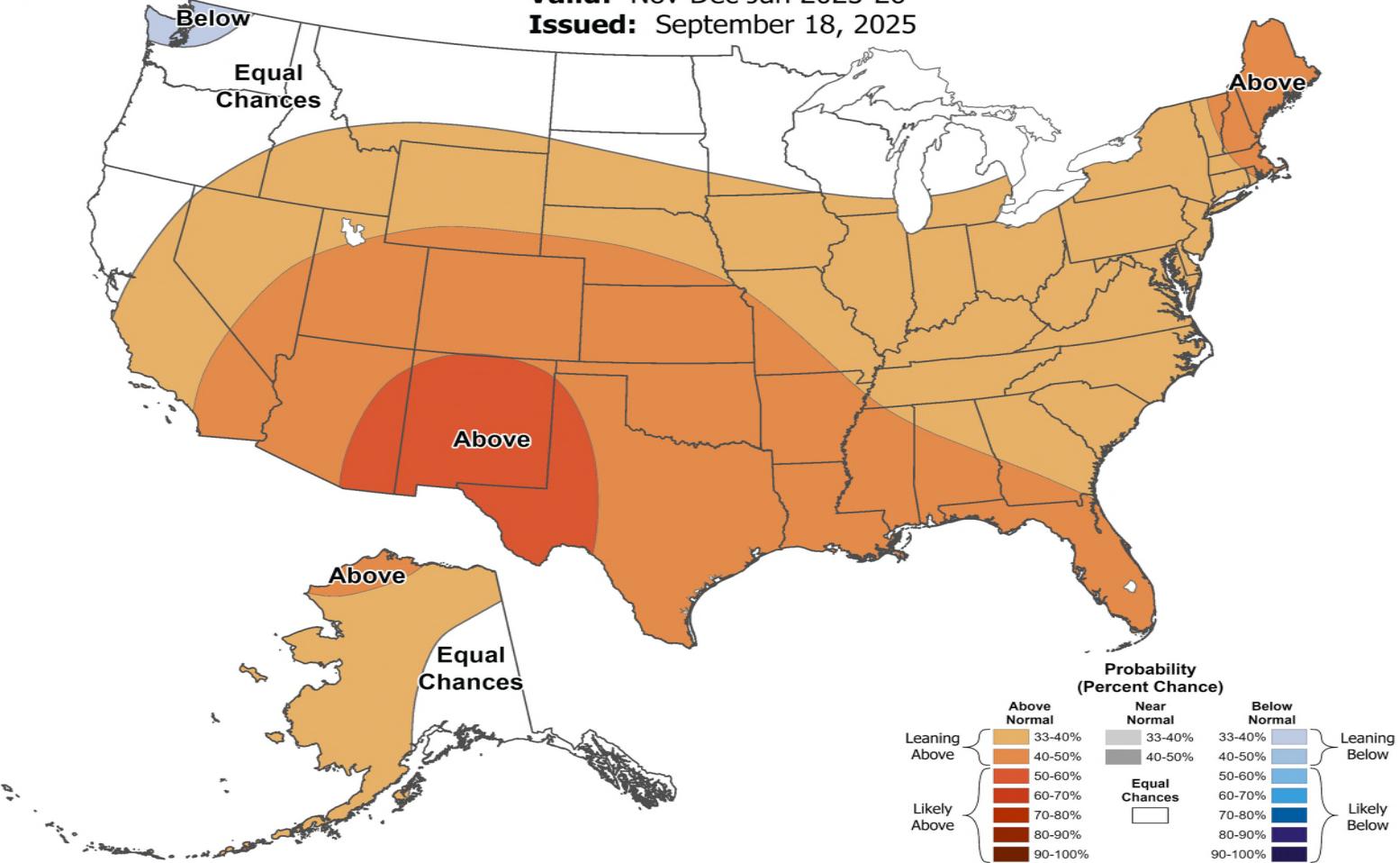


# Seasonal Temperature Outlook

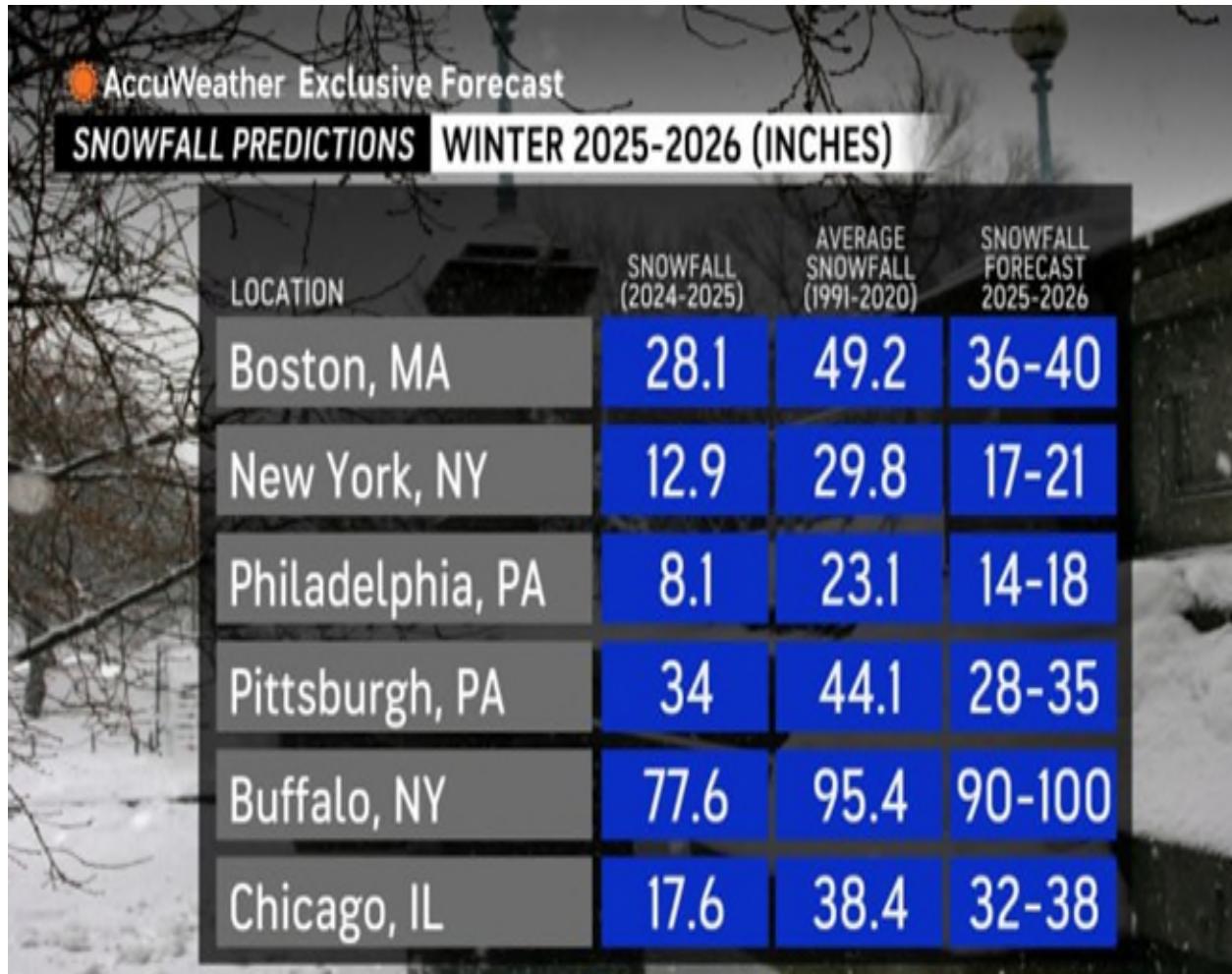


Valid: Nov-Dec-Jan 2025-26

Issued: September 18, 2025



# AccuWeather Prediction for FY 25/26



**AccuWeather Exclusive Forecast**

**SNOWFALL PREDICTIONS | WINTER 2025-2026 (INCHES)**

| LOCATION         | SNOWFALL<br>(2024-2025) | AVERAGE<br>SNOWFALL<br>(1991-2020) | SNOWFALL<br>FORECAST<br>2025-2026 |
|------------------|-------------------------|------------------------------------|-----------------------------------|
| Boston, MA       | 28.1                    | 49.2                               | 36-40                             |
| New York, NY     | 12.9                    | 29.8                               | 17-21                             |
| Philadelphia, PA | 8.1                     | 23.1                               | 14-18                             |
| Pittsburgh, PA   | 34                      | 44.1                               | 28-35                             |
| Buffalo, NY      | 77.6                    | 95.4                               | 90-100                            |
| Chicago, IL      | 17.6                    | 38.4                               | 32-38                             |

# Challenges

- ▶ Every storm is different and presents unique challenges (e.g., time of day, day of week, rush hour, rate of accumulation, rising or falling temperatures, sunshine/overcast, additional snowfall in forecast, etc.)
- ▶ Scheduled absence, illness, injury and other emergency events such as water main breaks, reduce the number of available personnel for snow and ice control operations.
- ▶ Staff continue to assess our operations and make the necessary changes to prevent diminishing service levels.

# Common Inquiries

- ▶ Driveway complaints are the most common, with many from residents who live in a cul-de-sacs.
  - ▶ **Driveway Policy**: supervisor determines if excessive snow is dumped on individual driveways.
- ▶ Condition of roads that are not under our jurisdiction.
  - ▶ For example, Dundee Road and Waukegan Road are under the jurisdiction of the Illinois Department of Transportation (IDOT).
- ▶ Private plow services may create sight line problems and deposit snow on public roads.

# Conclusion

Snow and ice control is a critical component of maintaining public safety and protecting property. The Village is committed to upholding high standards and ensuring effective snow removal operations.