

**2005-2006
Snow & Ice
Removal
Policy**

Snow and Ice Removal Policy

The City of Delaware's Snow and Ice Removal Policy describes snow removal priorities and the level of service that will be provided by City Forces.

1) First priority is given to the State Highways, Emergency Routes, Arterial Roads, Streets with dangerous hills or curves, and any road or lane which is blocked.

2) Second priority is given to Designated Collector Roads, School Zones, and the Airport.

3) Third priority is given to residential roads. Generally residential roads are cleared on a rotating basis, with crews starting in a different location in the city after each snowfall. Initial priority will be given to the next falling refuse collection day when the starting point is determined.

Plowing does not occur until an accumulation of 3" of material is on the roadway surface. Salting is done up to this point in time.

Note that windrows left by City snow removal efforts are not cleared from private driveways or sidewalks.

Following a heavy snowfall, snow clearing equipment concentrate on plowing snow throughout the City, with the following areas as a general rule, receiving higher priorities.

SNOW PLOWING

Priority I

- All on and off ramps
- Any blocked roads and lanes
- Cheshire Rd (23 to Gregory Rd)
- Clear Run Rd (1st 300' west of U S 23 North)
- Elizabeth St
- Glenn Rd (36/37 to railroad tracks)
- Grand Circuit Blvd (between Warrensburg Rd and Hanover Ct)
- Hawthorn Blvd (East and West end)
- Hills Miller Rd (1st 300' west of U S 23 North)
- Houk Rd and N. Houk Rd (W William St to Merrick Blvd)
- Lake St (to Horseshoe Rd)
- Lantern Chase Dr (between St Rt 37 West and Lantern Chase Ct)
- Liberty Rd (to Hawthorn Blvd South)
- Liberty St
- London Rd (turn around at Jeg's)
- Nutter Farms Blvd
- Pennsylvania Ave
- Pinecrest Dr from 23 to Woodhaul Dr
- Sandusky St
- St Rt 36 (East to Davidson Ln, West to Springer Woods Blvd)
- St Rt 37 (East to Davidson Ln, West to 203/Section Line Rd)
- St Rt 42 (partial on new interchange)
- St Rt 521 (to JVS)
- Stratford Rd
- Troy Rd (north to first entrance to Smith Park)
- U S 23 (Pennsylvania on ramp to north, Stratford Rd/315 to south)
- Warrensburg Rd (Between St Rt 37 West and Grand Circuit Blvd)
- West Hull Dr (East and West ends)
- Winter St

Wind direction and traffic volumes generally determine which roadways or areas receive highest priorities. Initial plowing operations usually permit restricted traffic movements until snow loading and clean up can be completed.

Snow removal is required most frequently in the Downtown Business District due to high traffic and pedestrian volumes and the lack of adequate snow storage areas.

Snow in the Downtown Business District is plowed to the center lane of Sandusky Street (between Court Street and Bernard Avenue), center lane of Winter Street (between Union Street and Franklin Street), and center lane of William Street (between Henry Street and Washington Street). This method is utilized to prevent restricted access to businesses and allow them to operate as normally as possible.

Generally, snow cleaning of the Downtown Business District area is initiated at the discretion of the Superintendent of Public Works or Designee approximately 48 hours following a major snowfall to permit the businesses to clear the snow from the sidewalks onto the road. If the snowfall occurs on a weekend, and is not too severe, clearing may be delayed in the area until Tuesday morning.

Snow is removed from these areas when windrows become excessive.

Snow clearing in the Downtown Business District area is performed during early morning shifts to avoid traffic conflicts.

Salting is performed following plowing operations.

Priority II

- Airport Rd
- Applegate Ln
- Belle Ave
- Channing St
- Chatham Ln
- Cheshire St
- Colomet Dr
- Cottswold Dr
- Curtis St
- Euclid Ave
- Executive Blvd (Pennsylvania Ave to Woodhaul Dr)
- Fern Dr
- Grandview Ave (between W Central Ave and Barrett St)
- Harrison St
- Hayes Dr
- Hayes St
- Heffner St
- Henderson Ct
- Henry St
- Heritage Blvd (Pennsylvania Ave to Rutherford Ave)
- Johnson Dr
- King Ave
- Lexington Blvd (between St Rt 37 W and Buehler Dr at St Rt 37 W)
- Lincoln Ave
- North St
- North Union St
- Orchard Hts
- Park Ave
- River Street
- Pittsburgh Dr
- Somerset Rd (Liberty Rd to Cottswold Dr)
- South Houk Rd (W William St to Pittsburgh Dr or dead end)
- South Washington (between Spring & Rowland)
- Spring St
- Stover Dr
- Sunnyview Loop (Rockcreek Dr to New Market Dr)
- Vernon Ave

Schools

- Carlisle Elementary
- Conger Elementary
- Delaware Christian
- Dempsey Middle School
- Hayes High School
- Schultz Elementary
- Smith Elementary
- St Mary's
- Willis Intermediate
- Woodward Elementary

Snow clearing in the Priority II Area is initiated following completion of the Priority I Areas. Snow is removed from these areas when curbside windrows become excessive.

Salting is performed following plowing operations.

Airport

Snow clearing at the airport is considered a high priority due to the accident potential at this facility.

The Airport Operations Supervisor, Superintendent of Public Works or Designee (with input from the local Flight Service Operator) are responsible for initiating snow clearing at the airport.

The Airport will have two 2 ton dump trucks to start snow clearing at the airport as soon as possible after the weather clears. These dump trucks will be manned by airport personnel. ¾ ton /1 ton trucks will be utilized to remove snow from t-hanger areas. The Public Works Street Maintenance crew will assist if needed *after* finishing Priority II task. (Pilots generally would not expect the runway clear during a storm).

A NOTAM (Notice to Airmen) will be issued with the Flight Service Station, located in Dayton and operated by the FAA , each morning after the airport inspection if, in the opinion of the person authorized to conduct daily inspections, snow accumulation on the runway could present danger to aircraft. A NOTAM will also be issued prior to each snow clearing operation or prior to any other maintenance activity which will require operation of equipment on the airport runway for an extended period.

The airport runway, taxiway, and the apron adjacent to the terminal building will be cleared as a first priority. If a heavy snowfall results in a shortage of equipment, the clearing of the hanger area may be delayed.

Snow clearing at the Airport generally requires the use of one grader and two trucks for approximately three hours.

If ice develops on the runway, Airport personnel will issue a NOTAM which will include this information. Urea will be applied to the runway areas as an alternative ice control measure. *Salt will not to be used due to its potentially corrosive nature.*

Priority III

Main Subdivision Roadways & Local Residential Roadways

Snow plowing of residential roads is initiated at the discretion of the Superintendent of Public Works, or Designee, as soon as all higher priorities are completed.

Residential areas are cleared on a rotating basis throughout the winter so no one area consistently receives a higher priority. This practice is predicated to a large extent by wind direction and drifting conditions.

Normally residential roads are plowed with trucks. If snow is unusually deep, roads may be cleared with a loader and grader.

Residential roads are generally plowed to each curb leaving a windrow on the curbs.

Residential roads with combination curb and sidewalk create a problem for snow clearing as a windrow deposited at the curb would cover the sidewalk. Attempts are made to level the snow in these areas. This minimizes the height of the windrows and minimizes additional driveway and sidewalk clearing by the public.

All public road intersections are cleared during plowing operations. Windrows left at private driveways or sidewalks are not cleared. Operators will use good snow management practices to minimize windrows where possible.

Roads are usually plowed to the curb on the right side of the snow removal equipment, unless parking is completely prohibited on one side, in which case snow is plowed to the side with the parking ban.

Salting is also done after initial snow plowing at intersections with stop and yield signs.

Priority III (Main Subdivision Roadways)

- **Acme Rd**
- **Ashburn Dr**
- **Beech Dr**
- **Boulder Dr**
- **Bowtown Rd**
- **Carson Farms Blvd**
- **Castleton Way**
- **Cheshire Crossing Dr**
- **Cobblestone Dr off S Houk Rd**
- **Fieldcrest Dr**
- **Firestone Dr**
- **Grand Circuit Blvd @ 36**
- **Hawthorn Blvd**
- **Holly Rd**
- **Indigo Blue St**
- **Lantern Chase Blvd**
- **Lehner Woods Blvd**
- **Locust Curve Dr**
- **Merrick Blvd**
- **Oakhurst Dr**
- **Penick Ave**
- **Rockmill St**
- **Slack Rd**
- **Springer Woods Blvd**
- **Stonhope Dr**
- **Tara Glen Dr**
- **Weiser Ave**
- **W Hull Dr**
- **Wilmer St**
- **Wootring St**

SALTING

Salting operations are initiated as soon as warranted at the discretion of either the Superintendent of Public Works or Designee based on conditions and with input from Delaware Police Department.

Under normal conditions, Priority I and Priority II areas are salted in one 8 hour shift. Another day is required to salt Priority III intersections.

Local residential roads do not usually get salted except under special conditions determined by the Department of Public Works management.

PUBLIC ROADS CLEANING

Where snow is stored on roadways, some stone and silt will be deposited as residual in the spring when the snow melts. The volume of stone and silt depends on the amount of salting in the area.

In the spring the City will sweep the curb line on Priority I and II roadways where significant accumulations of stone and silt have been deposited.

Priority III roadways will be swept once the annual street cleaning service resumes.

SNOW EMERGENCIES

At anytime a snow emergency is declared by the Delaware County Sheriff's Department, regardless of the level issued, notification of such declaration shall be made to the Public Works Director and/or the Public Works Superintendent.

PARKING LOTS

The Grounds and Facilities Department is responsible for snow clearing from Public and City parking lots. Clearing of parking lots is scheduled around other snow cleaning operations. They will be cleaned with a front end loader as time permits and does not interfere with or delay road clearing operations.

The following parking lots (listed in normal priority order) are cleared by Grounds and Facilities crews:

1. Public Lot on East William Street
2. Public Lot on North Franklin Street
3. Public Lot on East Winter Street
4. City Hall
5. Justice Center
6. Main Fire Station
7. Fire Sub Station
8. Water Treatment Facility
9. Waste Water Treatment Facility
10. Grounds and Facilities Complex – Ross Street
11. Mingo Complex
12. Leased City Lot on South Franklin Street

Generally all public parking lots can be cleared in one 8 hour shift. Public lots are usually scheduled before 8:00 a.m. to avoid conflict with Public vehicles.

SIDEWALKS

Sidewalk Clearing Policy

The Grounds and Facilities Department is responsible for clearing specified sidewalks and walkways as listed below.

Generally, property owners are responsible for clearing snow from sidewalks adjacent to their property.

The sidewalks listed in this document are generally cleaned by City crews within 48 hours following a storm.

- Sidewalks abutting City owned Facilities.
- Sidewalks abutting City controlled Public Parking Lots.
- Sidewalks on public road bridges
- Sidewalks abutting City Park areas, however some sidewalks adjacent to City Park areas may not be cleaned if in the opinion of the Superintendent of Grounds and Facilities the sidewalk is:
 - (a) in a remote area, or
 - (b) is in an area where it would not be used, or
 - (c) is in an area where there would be little use, and there is an alternate walkway readily available or
 - (d) the walkway leads to an open field which is not cleared of snow.

GENERAL

There are approximately 300 road miles for which the City is responsible for snow and ice removal.

Approximately 1600 tons of mixed salt (mixed 66% salt, 33% grit) is used for winter salting operations annually. Salt acts as a de-icer when temperatures are above 20. Additional grit is used when temperatures fall below 20 degrees

We have the capability to store approximately 1400 tons of piled salt and 500 tons of grit in our storage facilities, as well as storing 8600 gallons of salt-brine, used for pre-treating streets and activating salt/grit being applied from our dump trucks prior to it hitting the driving surface.

The traffic signals at various locations are set in "Flash Mode" at the discretion of either the Superintendent of Public Works or Designee, or City Police members to reduce stopping on the steep grades under icy conditions. The use of the flash mode is minimized as pedestrians are not protected in this mode of signal operations. These intersections include, but are not limited to, West William Street & Elizabeth Street, South Sandusky Street & Spring Street, and South Sandusky Street & OWU Jaywalk (Rowland Avenue).

The City maintains snow dump sites for use in City snow clearing operations. Private contractors are not allowed to use City sites. The City has also received authorization from the Delaware County Fairgrounds (via Steve Vaughn) to use their facility as dump site should a need arise. This location would be used only after all City facilities have been exhausted.

Note that Department responsibility and equipment assignments listed in this policy may change with availability of labor and/or equipment during any particular snow clearing operation.

Despite what some of our residents think there has been no method of avoiding putting snow in driveways yet devised. In most storms our first priority is to open all streets. We later come back and plow back. This means we again push the fresh snow as far back as possible. We do this for four reasons:

1. The snow is as far back as possible before it freezes. Thus, giving us more roadway width.
2. If the snow is left on the pavement, it acts like an insulation blanket, and we get differential frost heave. This causes cracking in the pavement. During some storms we have time to plow in tandem, thus eliminating the necessity to plow back.
3. Exposes storm water inlets for proper draining during periods of melt.
4. Allows for easier garbage pick-up and mail delivery.

During the course of plowing and salting activities, should negligence (that is-plowing past the curb line) cause damage to a mailbox the City would assume the responsibility for repair or replacement. However, we do not permanently repair mailboxes that are not sturdy enough to withstand a heavy snow being plowed against it or ones that are damaged because they protrude over the curb line.

When the snow is heavy (wet), the trucks must go faster to provide the momentum to remove the heavy snow, especially if plowing uphill. This causes some of the snow to get on sidewalks. Our plow operators try not to get snow on the sidewalks, but in some areas of the City the area between the sidewalk and curb is small or nonexistent.

CITY EQUIPMENT

Department

Activity to be Performed

Public Works Department

- | | |
|-----------------------------------------|-----------------------------|
| - 1988 Champion Grader (0065) | Plowing |
| - 1995 International Tandem Dump (0223) | Plowing, salting & hauling |
| - 2000 International 2 ton Dump (0297) | Plowing, salting & hauling |
| - 2000 International 2 ton Dump (0298) | Plowing, salting & hauling |
| - 2000 International 2 ton Dump (0299) | Plowing, salting & hauling |
| - 2000 International 2 ton Dump (0300) | Plowing, salting & hauling |
| - 2000 Chevy 4 x 4 Pick Up (0310) | Plowing |
| - 2000 Chevy 4 x 4 Pick Up (0311) | Plowing |
| - 2000 Chevy 4 x 4 Pick Up (0316) | Plowing |
| - 2000 Ford 1 ton Dump (0345) | Plowing |
| - 2000 Ford 1 ton Dump (0346) | Plowing |
| - 2001 International 2 ton Dump (0374) | Plowing, salting & hauling |
| - 2001 Case Front End Loader (0375) | Loading of snow for hauling |
| - 2002 International Tandem Dump (0397) | Pre-treating & Plowing |
| - 2002 Case Backhoe (0400) | Loading of snow for hauling |
| - 2005 International 2 ton Dump (0430) | Plowing, salting & hauling |
| - 2006 International Tandem Dump (0451) | Plowing & Salting |

Grounds and Facilities Department

- | | |
|--------------------------------------------|-------------------|
| - 2 Snow Blowers | Snow Removal |
| - 1996 Case Skid Loader w/ 6' Blade (0230) | Plowing |
| - 2000 Chevy 4 x 4 Pick Up (0337) | Plowing & salting |
| - 2000 Chevy 4 x 4 Pick Up (0304) | Plowing |
| - Small tractor w/blade | Plowing |

Public Utility Department

- | | |
|-------------------------------------------|-----------------------------|
| - 1991 Case Backhoe (0001) | Loading of snow for hauling |
| - 2001 International 2 ton Dump (0339) | Snow hauling |
| - 1995 Peterbuilt Truck w/Roll Off (0227) | Snow hauling |
| - 2004 Case Backhoe (0424) | Loading of snow for hauling |
| - John Deere Skid Steer (0344) | Loading of snow for hauling |
| - John Deere Backhoe/Loader (0372) | Loading of snow for hauling |
| - 1998 Chevy Pick Up w/plow (0264) | Plowing |
| - 2006 International 2 ton Dump (453) | Snow Hauling |
| - 2006 International 2 ton Dump (446) | Snow Hauling |

Fire Department

- | | |
|-----------------------------------------|----------------|
| - Snow Blower | Snow Removal |
| - 1979 GMC 4 WD Pick Up Truck (0026) | Transportation |
| - John Deere Lawn Tractor w/plow (0016) | Plowing |

Airport

- | | |
|----------------------------------|----------------------------|
| - 1991 Chevy 2 Ton Dump (0133) | Plowing |
| - 1995 International Dump (0222) | Plowing, salting & hauling |
| - Fertilizer Spreader | Spreading of Urea |

AVAILABLE STAFFING

The following are available, by department, for 24 hour around the clock plowing in shifts. These drivers possess Commercial Driver's Licenses.

<i>Street Maintenance and Repair Division of Public Works</i>	9 available drivers
<i>Traffic Division of Public Works</i>	4 available drivers
<i>Fleet Maintenance Division of Public Works</i>	3 available drivers
<i>Administrative Division of Public Works</i>	4 available drivers
<i>Refuse/Recycling Division of Public Works</i>	12 available drivers
<i>Underground Utilities</i>	13 available drivers
<i>Grounds and Facilities</i>	4 available drivers
<i>Wastewater Treatment Plant</i>	7 available drivers
<i>Airport</i>	1 available driver

LOCAL GOVERNMENT AGREEMENTS

The City of Delaware has discussed and enacted Snow and Ice Removal Policies with the Ohio Department of Transportation, Delaware County, Concord Township, Troy Township and Delaware Township for the 2005-2006 snow season. These agreements will be reviewed and updated accordingly on a yearly basis.



SNOW AND ICE REMOVAL AGREEMENT BETWEEN
THE CITY OF DELAWARE OHIO AND THE OHIO DEPARTMENT
OF TRANSPORTATION 2005-2006 SEASON

US 42 SOUTH

ODOT snow and ice begins at the intersection of 42 and 23 ODOT will maintain the 42 portion of the intersection south of the Sandusky connector

US 42 NORTH

ODOT snow and ice begins at Horseshoe Road

US 36 WEST

ODOT snow and ice begins at Springer Woods Blvd

US 36/37 East

ODOT will maintain Davidson Dr. East, the turn around will be the Kroger entrance with ODOT maintaining west bound turn lane

SR 37 WEST

ODOT snow and ice begins at South Section Line Road

US 23 NORTH

ODOT snow and ice begins at Pennsylvania Avenue

US 23 South

ODOT snow and ice begins at SR 315. ODOT does intersection

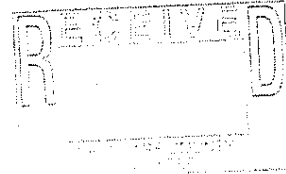
SR 521

ODOT snow and ice begins at J V S

Based on ease of turn around, safety convenience, and common sense, we agree, for this snow and ice season to begin and end maintenance as listed above

City of Delaware Representative *J. Bellis* Date *10/5/05*

ODOT Representative *Robert Hoq* Date *10/5/05*



The City of Delaware and Delaware County
Snow and Ice Control Maintenance Agreement
2005-2006 Season

Houk Rd.

Delaware City will maintain all portions of Houk Rd

Liberty Road

Delaware County will maintain all roadway South of Hawthorn Blvd.

Bowtown Road

Delaware County will maintain all roadway east of St Rt 521

Curve Road

Delaware County will maintain all roadway South of Armstrong Rd.

South Section Line Road

Delaware County will maintain all of Section Line Rd. Delaware City will inspect roadway at the completion of Pittsburgh Dr

Warrensburg Road

Delaware County will maintain all roadway west of Grand Circuit Blvd.

Stratford Road

Delaware City will maintain all of Stratford Rd in its entirety.

Troy Rd.

Delaware City will maintain all roadway to the South of Smith Parks Southern entrance

Cheshire Road

Delaware City will maintain all of Cheshire Road west of Gregory Rd.

Based on ease of turn around, safety, convenience, and common sense, we agree that the above maintenance agreement be adopted for the 2005-2006 snow and ice season.

Delaware City Representative: Joe Bellin Date: 10/4/05

Delaware County Representative: John S. [Signature] Date: 10-7-05



October 3 2005

Ernie Maschmann
Concord Township
7250 Dublin Road
Delaware, Ohio 43015

Dear Mr. Maschmann:

This is the Snow and Ice Control Maintenance Agreement between the City of Delaware and Concord Township for the 2005- 2006 season. Please review the agreement, and if it is acceptable, please sign and return to the Public Works Administrative Office at 241 Cherry Street.

Per our previous conversation the City of Delaware and Concord Township have agreed to the following:

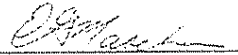
- a) Concord Township will maintain all of Owen Fraley Road and the City of Delaware will supply all necessary materials

We appreciate the opportunity to work cooperatively with the other governmental agencies throughout Delaware County as we strive to provide the best service possible to the citizens of the community

If you have any questions or concerns relative to the agreement, please feel free to contact me at 368-1630

Sincerely, 
Joe Bullis
Public Works Superintendent

Cc: Charles Dukes, Street Maintenance Crew Leader
Tim Browning, Public Works Director
2005-2006 Snow and Ice Removal Agreement

Concord Township Representative:  Date: 10-15-05



The City of Delaware and Delaware Township
Snow and Ice Control Maintenance Agreement
2005-2006 Season

Curtis St

The City of Delaware will maintain all Delaware Townships portions of Curtis St.

Vernon Avenue

The City of Delaware will maintain all Delaware Townships portions of Vernon Ave

Pollock Road

Delaware Township will maintain all City of Delaware portions of Pollock Rd

Brauniller

Delaware Township will maintain all City of Delaware portions of Brauniller Rd

Armstrong

Delaware Township will maintain all City of Delaware portions of Armstrong Rd.

Based on ease of turn around, safety, convenience and common sense, we agree that the above maintenance agreement be adopted for the 2005-2006 snow and ice season.

City of Delaware Representative: *J. Bullis* Date: *10/4/05*
Delaware Township Representative: *J. Donaway* Date: *10-17-05*
John Maito Chairman



The City of Delaware and Troy Township
Snow and Ice Control Maintenance Agreement
2005-2006 Season

Clear Run

The City of Delaware will maintain Clear Run hill.

Hills Miller Road

The City of Delaware will maintain Hills Miller Rd. to Oakhurst Dr

Clear Run

Troy Township will maintain Clear Run From T.S.C. to the end

Hills Miller Road

Troy Township will maintain Hills Miller Road from Oakhurst Rd. to the west.

Based on ease of turn around, safety, convenience and common sense, we agree that the above-mentioned agreement will be adopted for the 2005-2006 snow and ice season

City of Delaware Representative: *Joe Bullis* Date: *10/4/05*

Troy Township Representative: *Larry Stealing* Date: *10-10-05*

ANNUAL POLICY REVIEW

Each year, prior to the snow season, a review will be made of the currently existing Snow Removal Policy and appropriate changes be made based on any new conditions or information that will warrant such changes. Those to be included when this review is conducted are:

- Public Works Department
- Police Department
- Fire Department
- Grounds and Facilities Department
- Ohio Department of Transportation
- Delaware County
- Concord Township
- Troy Township
- Delaware Township
- Berlin Township

Policy was reviewed and updated November 22, 2005