



**CITY OF SPRINGFIELD  
SNOW AND ICE  
REMOVAL PLAN  
WINTER 2017–2018**



# Working to make all city streets as safe and accessible as possible during the winter season

The responsibility for providing snow and ice control for the City of Springfield’s infrastructure, including 2,000 lane miles of streets and cul-de-sacs, rests with the Office of Public Works (Public Works). In addition to Public Works, the Office of City Water, Light and Power (CWLP) and its Lake Services Division (Lake Services), employees are also involved in the cities snow removal operation in the areas around Lake Springfield.

The city has committed to following the American Public Works Association’s best practices and procedures for snow and ice removal. To address each weather event with the most effective and efficient methods Public Works has enhanced and expanded its commitment to ongoing training and education. Weather monitoring, pre-treatment of pavement, reassessment of routes, materials and equipment is ongoing year-round in an effort to better serve the public.

The goal of Public Works is to make all city streets as safe and accessible as possible during the winter season. City streets have been divided into four priorities, which

determine the level of service. Overall efforts for snow removal are based on the following priority list:

### Priority Streets by Category

<b>1</b>	Trouble Spots (Hospitals/Hazards): 27 miles
<b>2</b>	Main Routes: 167 miles
<b>3</b>	Subdivision/Neighborhood Mains: 62 miles
<b>4</b>	Subdivision/Neighborhood Streets and Cul-de-sacs: 369 miles

### EMERGENCY ROUTES (HOSPITALS/HAZARDS)

Public Works places these areas as top priority for extreme weather events. They are the areas where emergency first responder access is critical. They also include the areas of known “hazards” when we have extreme weather events. Such hazards are typically created due to the “slope” or type of pavement that can quickly create treacherous driving conditions during winter weather.

A list of Snow Emergency Routes can be found in Appendix A.

To better inform and advise the public on the hazardous conditions of roads during the winter months the Office of Public Works provides updates that can be viewed on the city website at [www.springfield.il.us](http://www.springfield.il.us). This is in place to provide the public with real time updates on street conditions. However, at no time does this take the place of all motorist responsibility to recognize the need to drive for conditions. An online video on safe driving tips can also be found on the city website or on Access Channel 18.

## MAIN ROUTES

Public Works then focuses on the Main Routes throughout the city. These are the thoroughfares with the highest Average Daily Traffic (ADT) counts that move traffic throughout the commercial districts and residential neighborhoods city-wide. Public Works attempts to clear all Main Routes to bare pavement to maintain a clear driving track throughout the city.

## SUBDIVISION/NEIGHBORHOOD MAINS

Public Works will move into these streets once all Emergency and Main Routes are determined to be adequately cleared. These Subdivision/Neighborhood Mains are the streets that conduct traffic through and into subdivisions or the primary street in an older neighborhood. They are cleared to a passable condition prior to moving to side streets and cul-de-sacs.

## SUBDIVISION/NEIGHBORHOOD STREETS AND CUL-DE-SACS

Public Works ability to clear the residential streets varies based on the event. Typically during a limited winter storm that includes accumulation of 2 to 3 inches or less, plowing of these streets will not be necessary. That approach will vary depending on the type of storm and the conditions and will be based on Public Works assessment of the streets.

During larger accumulation events of several inches Public Works will make one immediate pass through every street to provide immediate access. Upon the completion of the one pass, crews will begin moving again through subdivisions to more completely clear all subdivision and residential streets. This approach is in response to the public's need to recover and reengage in their normal activities of work, school, and access to other needs.

## SIDEWALKS

Public Works is responsible for clearing sidewalks near the Sangamon Mass Transit District Transfer station. The transfer station is located on Capital Avenue between Fourth and Fifth Streets. Keeping these clear is a priority to provide access for bus passengers. A crew is assigned to clear those walks as well as the Old State Capital and sidewalks within the Central Business District.

The vast majority of sidewalks through the cities commercial business and residential neighborhoods is the responsibility of the property owners. All city residents are responsible for clearing their own sidewalk under

city code. City code citation for sidewalk clearing can be found in Appendix B.

## SNOW FENCES

Public Works installs snow fences each winter to assist with drifting in identified locations. These fences are typically installed in mid-November and left in place until late March.

A list of snow fence locations can be found in Appendix C.

## PERSONNEL

The number of people involved in the snow and ice removal operations varies based on the severity of the event and the availability of additional personnel. It is the primary responsibility of Public Works and Lake Services employees and as necessary or as available additional personnel may assist in severe storms.

All Public Works personnel who are involved with snow and ice operations abide by special work scheduling rules during the snow and ice season (mid-November through April 1). Employees are expected to be available for overtime callout during their shift.

<b>Public Works</b>	111 employees (split between two 12-hour shifts)
<b>Lake Services</b>	20 employees (16-hour shifts)
<b>CWLP</b>	3 to 5 employees (as available)
<b>Contractors</b>	Varies



## EQUIPMENT

As with personnel, Public Works and Lake Services equipment is what is primarily used for the snow and ice control operation. The city is continuing to upgrade and appropriate additional and more sophisticated equipment as budgetary constraints allow. More effective applications of salt and more efficient assignment of the appropriate equipment for street conditions are an ongoing priority.

The following type of equipment is used by the Office of Public Works and Lake Services:

### Public Works

- |    |  |
|----|--|
| 23 | Tandem dump trucks, trucks with plows and salt spreaders |
| 4  | One-ton dump trucks with plows and V-box spreaders       |
| 14 | Pieces of heavy equipment (grader, backhoe, and loaders) |
| 24 | Pickup trucks  |

### Lake Services

- |   |   |
|---|---|
| 4 | Dump trucks with plows and salt spreaders |
|---|---|

### Water Department

- |   |   |
|---|---|
| 4 | Dump trucks for hauling out snow from the downtown area |
| 1 | Loader  |

### Contractors

Varies based on need

## REMOVAL OPERATIONS

Snow personnel and equipment are assigned to particular snow districts. Within each snow district there are specific routes that are to be followed for proper snow and ice removal. The routes are designed to ensure that snow personnel and equipment are equally divided among the seven (7) snow districts and a lake area district. Snow personnel are instructed to start at different routes within their snow district after each snow or ice accumulation. This will ensure that snow and ice removal is done equally and fairly for all secondary routes.

## WEATHER MONITORING

A key element in implementing an efficient snow and ice control program is receiving timely weather information. Accurate weather forecasting is imperative in deciding

which of the various operational procedures will be followed. Public Works uses Weather Sentry to provide daily weather reports to the dispatch office during the course of the day, 365 days a year. These reports are monitored by trained and experienced Public Works personnel.

During winter months Public Works has on-call staff assigned to monitoring conditions 24-hours a day. When pending weather is approaching staff will monitor conditions utilizing our weather reports as well as checking conditions on the ground throughout the city. Based on that monitoring and assessment a plan on addressing the weather event is formulated, implemented and adjusted as conditions warrant.

## SNOW EMERGENCY

When a major weather event is in the forecast, the city may initiate a snow emergency to insure that all routes are clear of vehicles. When announced parking is prohibited on the designated snow routes. Snow routes may be viewed on the city website or view Appendix A in this document. Times and duration of the snow emergency may vary and are subject to change. Declarations of emergency are done through city and non-city media outlets and venues with as much notice as possible.

## ROAD SALT

The primary material used by the city to remove snow and ice from the pavement is standard road salt. Use of the material varies based on the severity of the winter and the types of weather and may vary from 3,000 to 9,000 tons in recent years.

Time is crucial in applying salt to the streets. Initial application should be applied as soon as snow or ice begins to accumulate on the pavement. The salt will quickly produce "brine," a protective area between the street surface and snow or ice, thus preventing a bonding to the pavement. The melting action of salt applied early in a storm works from the pavement surface up so ice does not stick.

Should temperatures drop below 15 degrees the use of salt becomes ineffective. Liquid calcium chloride may be applied to salt when temperatures reach below that level. The limited equipment and access to calcium chloride makes its widespread use very restricted for these type of events.

### **PRE-TREATMENT**

Public Works pre-treats areas when pending weather is in the forecast. By pre-treating with pre-wet salt, bridge decks and hazardous areas can produce a brine that improves traction for motorists once the winter weather arrives. Timing here is also of utmost importance and is often subject to unpredictability of quickly changing weather conditions.

### **PROPERTY DAMAGE**

During the course of operations throughout any given winter, a certain amount of damage to city and private property may be incurred by snow removal forces. In the event that parkway damage is sustained due to a plow riding over a curb, Public Works will repair said damage as soon as weather conditions permit. If the parkway sod is damaged beyond repair, Public Works will restore the area at the earliest availability of material. Any damage sustained due to salt inadvertently splashed onto the parkway during the course of the winter will not be treated or repaired by the city.

### **MAILBOX DAMAGE**

If a city plow or truck damages a mailbox either through direct contact or due to the force of the snow rolling off the plow, the mailbox may be repaired or replaced with a standard type mailbox that the city will reimburse with receipt up to \$100. The city will not replace decorative mailboxes. The set amount of \$100 may be reimbursed based on the cost of the standard mailbox replacement for that season. A property owner who installs decorative material on the parkway does so at his or her own risk.

### **PLOWING IN DRIVEWAY**

It can be expected that snow will be plowed into driveways as a normal part of snow removal operations. Attempts will be made to keep excessive amounts from accumulating; however, each driveway will receive a certain amount of snow.

### **PLOWING IN CUL-DE-SACS**

Because of the large amount of cul-de-sacs city-wide, and the amount of time needed to clean each one, residents in these areas can expect a nominal amount of snow in their driveways as well. Public Works will do their best not to pile snow in front of driveways in cul-de-sacs.

### **ASSISTING WITH TOWING OR PLOWING ON OR OF PRIVATE PROPERTY**

Under no circumstance will a city employee be allowed

to use a city-owned vehicle to push, pull or tow a stranded vehicle from a roadway or parking lot. The employee may, if a hazard exists, use his or her radio to notify the 911 dispatcher of the hazardous condition. Likewise, under no circumstance will a city employee use a city-owned vehicle to perform any snow removal or ice control operation on private or commercial property and the employee will not be allowed to use personal equipment during working hours.

### **BUDGETING**

The Office of Public Works budgets for snow and ice removal based on a five-year average. City expenditures to address winter weather conditions can range from a \$200,000+ to over \$1 million for the season. In recent years mild winters have limited necessary expenditures on snow and ice removal but the Office of Public Works must always be prepared for the typical Midwest winter. Further, it is always possible that additional funds may be necessary during an extreme winter.

A five-year budget average for winter snow and ice control operations can be found in Appendix F.

### **DEPARTURE FROM POLICY**

The city recognizes that conditions may be so unusual or unexpected that a departure from these general policies could be authorized. Therefore when conditions warrant, the Director of Public Works, in consultation with the Mayor or his/her designated representative, may order a departure from these general rules if in the opinion of the Director, the conditions require such action and are subject to change.

### **NO GUARANTEED DUTY OR RIGHT CREATED**

The purpose of this policy is to explain the plans and related issues for the City of Springfield regarding snow and ice control. It's not to be construed to create any duty to any individual, person or entity. This policy does not provide any special protection or service to any particular individual or group of individuals. No additional rights shall be granted to any individual or entity simply by adoption and enforcement of this policy. This policy may be affected in total or in part, as a result of acts of nature, strikes, equipment breakdown, weather conditions, inadequacy of equipment, state or federal regulations, shortage of personnel and any other unforeseen, uncontrolled or unanticipated acts.

## APPENDIX A

# Snow Emergency Routes

STREET	FROM	TO
1st Street	North Grand	Adams
1st Street	Highland	Ash
2nd Street	North Grand	Laurel
5th Street	Sangamon	Stanford
6th Street	Bryn Mawr	5th Street
7th Street	Carpenter	Madison
9th Street	Peoria Road	Myrtle
9th Street	Ash	Oberlin
11th Street	Ridgely	Stevenson
16th Street	Carpenter	Clear Lake
19th Street	Sangamon	Carpenter
Adams	2nd Street	Lewis
Ash	MacArthur	Dirksen Parkway
Bruns Lane	North Grand	Washington
Capitol	9th Street	Martin Luther King
Carpenter	Walnut	19th Street
Chatham Road	Washington	Wabash
Clear Lake	16th Street	24th Street
College	Monroe	Edwards
Cook	Dirksen	Pasfield
Edwards	MacArthur	2nd
Factory	Ridgely	Griffiths
Glenwood	South Grand	Laurel
Griffiths	Factory	19th Street
Henely Road	Sangamon Avenue	Griffiths Street
Iles	I.C.G. RR	6th Street
Iles Avenue	Koke Mill Road	Chatham Road
Jefferson	16th Street	Amos
Koke Mill Road	Washington Street	Wabash Avenue

STREET	FROM	TO
Laurel	MacArthur	Taylor Avenue
Lawrence	Monroe	9th Street
Lewis	Monroe	Madison
MacArthur	North Grand	Iles
Madison	Walnut	16th Street
Martin Luther King	Clear Lake	Ash
Mayden Street	Dirksen Parkway	Piper Road
Monroe	Veterans	2nd Street
Myrtle	6th Street	9th Street
North Grand	Bruns Lane	Wheeler
Oberlin	6th Street	11th Street
Old J'ville Road	Monroe	Chatham Road
Outer Park Drive	Bates	1st Street
Peoria Road	9th Street	Sangamon
Piper Road	Sangamon Avenue	Mayden Street
Rutledge	North Grand	Carpenter
Sangamon	5th Street	Peoria Road
Shepherd Road	West Lake Drive	Toronto Drive
South Grand	MacArthur	Taylor Avenue
Spring	South Grand	Edwards
Spruce	9th Street	5th Street
Stanford Avenue	MacArthur Boulevard	11th Street
Stevenson Drive	6th Street	Dirksen Parkway
Taylor Avenue	South Grand	Stevenson
Toronto Road	East I 55 Exit/ Entrance Ramp	Shepherd Road
Walnut	North Grand	South Grand
Washington	Veterans	2nd Street
West Lake Drive	Stevenson	Shepherd Road

## APPENDIX B

# City Code Citation for Sidewalk Clearing

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### § 99.03. – SIDEWALKS TO BE KEPT FREE FROM SNOW, ETC.

Every owner or occupant of any premises, and every person having the charge or control thereof shall, during the winter season, whenever there is a fall of snow, and by 10:00 a.m. on every morning thereafter, clear the sidewalks in front of or adjoining such premises, from snow and ice, and keep the same conveniently free therefrom, or shall, **in case the snow and ice are so congealed as not to be removed without difficulty or injury to the pavement, strew the same with ashes, sand, or sawdust.**

(Ord. No. 206-3-96, § 3(Exh. A), 3-20-96)

State Law reference – Power to city to provide for cleaning of streets, 65 ILCS 5/11-13.

### § 99.11. – STREET AND SIDEWALK OBSTRUCTION

(a) **No contractor, builder, or other person shall encumber or obstruct any street, alley, sidewalk, or other public ground or portion thereof in the city with barricades, parking meter covers, temporary structures, tool sheds, office or tool trailers or shanties, building materials, or any other foreign materials which may impede or obstruct traffic or public use of a public way unless such contractor, builder, or other person shall have filed with the city clerk an application setting forth, among other things, the purpose, the period, and extent of the use desired to be made of the public way and shall have obtained a permit**

**signed by the city clerk and properly endorsed by the city traffic engineer, and shall have paid the proper fees. Anyone who obtains such a permit and encumbers or obstructs any street, alley, sidewalk, or other public ground or portion thereof, shall install barricades, flashing lights, lanterns, channelizing devices, and warning signs as specified by the city traffic engineer.** Should the permit also authorize blockade of curb parking, the permittee shall obtain from the city traffic engineer appropriate materials to mount on the parking meters giving notice to the public that such meters have been taken out of service and stating the duration thereof.

(b) **This section shall not apply during emergency situations involving health and safety. In such cases representatives of public utilities, and public works or any bonded contractor authorized by the office of public works may proceed to correct the emergency situation: but in such case, all persons, including city employees, shall give notice to the police department, fire department, and office of public works of the city prior to making such obstruction, which notice shall specify the location and purpose thereof, and all persons including city employees shall thereafter, on the next business day, comply with the provisions of sections 99.11, 99.12, 99.13, 99.27, and 99.28 and such other provisions of this Code as may be applicable.**

(Ord. No. 206-3-96, § 3(Exh. A), 3-20-96)

## APPENDIX C

# Snow Fence Locations

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1. Kennedy Park
2. Stuart Park
3. Rotary Park
4. Archer Elevator Road
5. Cockrell Lane and Fox Hall
6. Fox Hall
7. Prairie Crossing and Chatham Road
8. Toronto Road and 11th Street
9. Cockrell Lane and Constitution Drive
10. Lenhart Road

## APPENDIX D

# Budget for Snow and Ice Removal Operations

FISCAL YEAR	ROCK SALT	OVERTIME	CONTRACTUAL	SUPPLIES*	TOTALS
2013	\$224,350	\$123,342	\$6,320	\$25,000	\$379,012
2014	\$314,149	\$390,504	\$91,108	\$25,000	\$820,761
2015	\$185,093	\$154,069	\$32,373	\$25,000	\$396,535
2016	\$184,223	\$119,831	\$38,747	\$25,000	\$367,801
2017	\$202,625	\$126,717	\$1,296	\$25,000	\$355,638
<b>FIVE-YEAR AVERAGE</b>	<b>\$222,088</b>	<b>\$182,893</b>	<b>\$33,969</b>	<b>\$25,000</b>	<b>\$463,950</b>

*\*Miscellaneous plow parts, rubber blade guards, and spreader parts*