



# **SNOW & ICE CONTROL PLAN**

## **CITY OF LAWRENCE**

**2016-2017**

(Revised 9/20/2016)

## **FORWARD**

This document will generally outline the Level of Service Policy and Operational Procedures, and Community Outreach efforts to be utilized by the City of Lawrence, Department of Public Works in its effort to control snow and ice on the city road network and inform the public.

It is recognized each storm has particular characteristics that may require adjustments in operational measures to combat that storm. Therefore, this document is to be utilized as a guideline with specific deviation to be made as warranted by the Storm Operations Team.

The department's attitude toward winter storms shall be that snow and/or ice on roadway surfaces is an emergency condition and our posture shall be to actively combat any storm in lieu of reacting to its effects. It shall be the department's policy to maintain the roadway surface conditions as described in the Level of Service Policy as resources, capabilities and weather conditions permit.

The City will utilize several methods to keep the public informed before and during winter events. The city web page will be updated to reflect changing weather and street conditions, along with near real time looks at truck location through a interactive GIS layer that shows plow locations. In the December water bills, an informational flyer will be sent giving a brief description of the snow plan operations, and tips for the public.

## SNOW & ICE CONTROL LEVEL OF SERVICE POLICY

The Roadway System is divided into three classifications for snow and ice control as shown on the “*City Snow and Ice Control Classifications*” maps (see Figure 1 with some adjustment for route continuity. Classifications are:

- ***Priority Routes*** – Multi-lane arterials, hospital routes, bus routes and two-lane roadways with traffic volumes over 3000 Annual Average Daily Traffic (AADT).
- ***Collector Routes*** – Collector routes, roadways with traffic volumes from 1000 to 3000 AADT.
- ***Residential Routes*** – Low volume roadways/Residential streets.

The category descriptions, level of service, and priorities for each classification are outlined in the following “Snow and Ice Control Policy/Level of Service Chart”.

SNOW AND ICE CONTROL – POLICY/LEVEL OF SERVICE		
CLASSIFICATION	LEVEL OF SERVICE	PRIORITIES
<u><b><i>Priority Routes</i></b></u> Multi-lane arterial roadways, hospital routes, designated bus routes and two-lane roadways with traffic volumes over 3000 Annual Average Daily Traffic (AADT).	All through lanes on multi-lane roadways and both lanes on two-lane roads will have bare/wet wheel paths with mostly bare pavement.	1. Aid for emergency vehicles responding to calls (if requested) 2. Known problem areas (hills, curves, bridges, stop signs, etc...) 3. Higher AADT roadways, or as storm conditions dictate
<u><b><i>Collector Routes</i></b></u> Collector routes, roadways with moderate traffic volumes from 1,000 to 3000 AADT and residential areas.	Two bare/wet wheel paths in each lane with intermittent bare pavement.	1. Aid for emergency vehicles responding to calls (if requested) 2. Known problem areas (hills, curves, bridges, stop signs, etc...) 3. Higher AADT roadways, or as storm conditions dictate
<u><b><i>Residential Routes</i></b></u> Low volume City routes / Residential streets.	Driving lanes will have intermittent bare/wet wheel paths.	1. Aid for emergency vehicles responding to calls (if requested) 2. Known problem areas (hills, curves, bridges, stop signs, etc...) 3. Higher AADT roadways, or as storm conditions dictate.

Activities should, where possible, be directed to anticipate storm impacts and proactively maintain the indicated level of service.

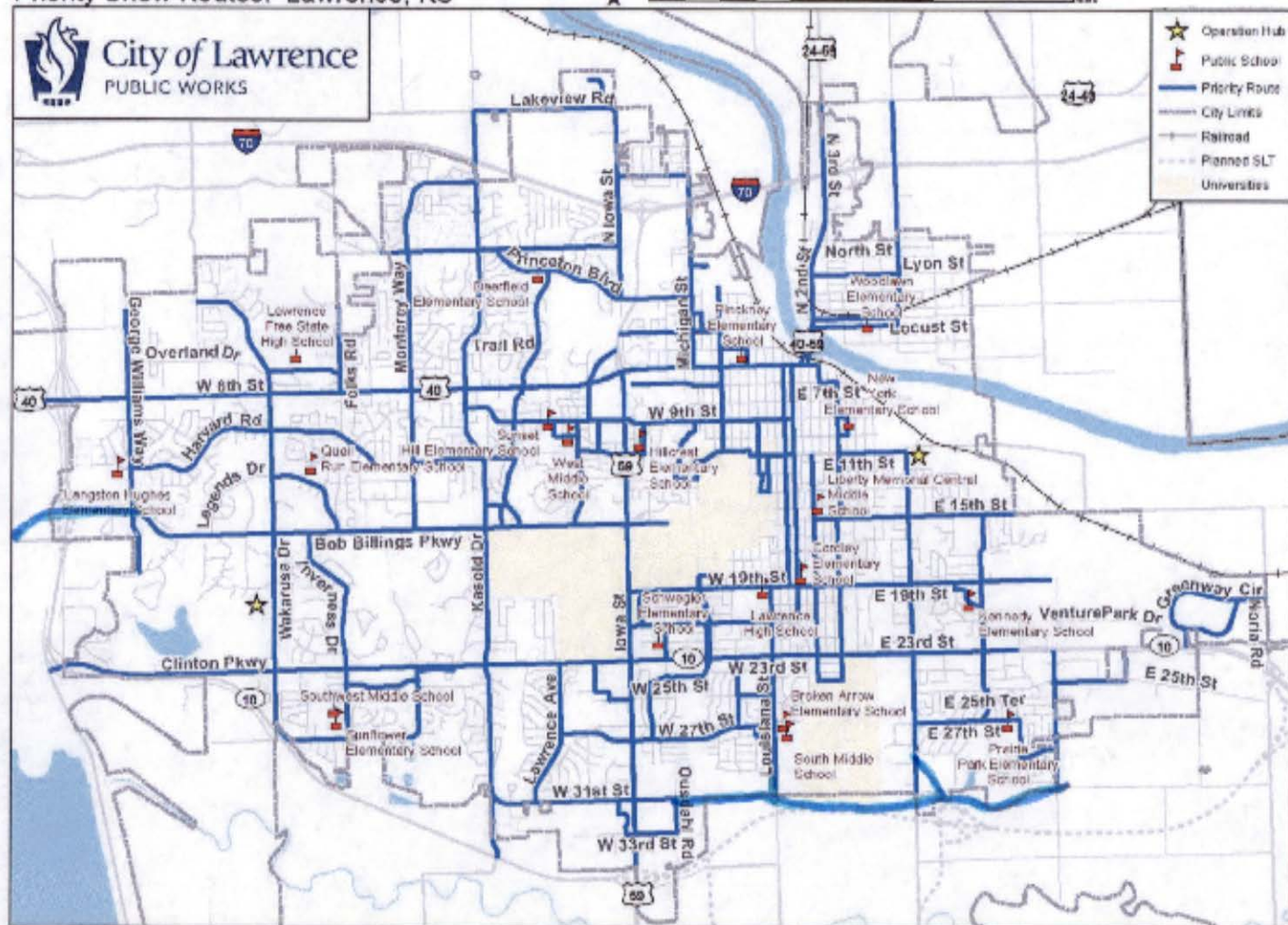
Widening and intersections shall have the same level of service as the accompanying traveled way.

Once the level of service for a given route has been achieved and is likely to sustain itself, equipment and resources may be reassigned to assist on other routes.

Clean-up operations will begin once all routes have reached sustainable levels of service.. During clean up, snow will be removed from city responsible sidewalks, parking areas, and in front of longitudinal barriers (bridge hub guard, guard fence, bridge walkways).

Clearing storage space for later snowfall or to keep drifting snow off the roadway should be done during regular business hours, unless more immediate action is needed for the level of service.

The City will not be responsible for removing windrowed snow from private entrances, sidewalks or driveways which may result from winter operations. Reasonable efforts will be made to minimize the effects of snow removal efforts on sidewalks, driveways, and entrances.





## **GENERAL SNOW AND ICE OPERATION PROCEDURE**

There are 18 specific snow routes (Figure 2) that are assigned specific pieces of equipment. Other pieces of equipment are assigned to support the 18 routes. Each snow route follows a priority order from the most traveled to the least traveled. Criteria used to establish the priorities are traffic counts, bus routes, schools and major employment centers. These routes shall be covered in accordance with Level of Service Policy.

To improve efficiency during snow and ice operations, the patrol routes shall be serviced from two stockpile locations. Both locations are stocked with liquid and granular de-icing materials.

1. Street Division Yard 11<sup>th</sup> and Haskell Ave
2. Wakarusa Drive North of the City Water Treatment Plant

Prior to predicted winter weather events anti-icing applications of salt brine solutions shall be applied to bridges, Priority I routes, known problem areas, and Priority II routes when possible. When precipitation is falling and temperatures are such that hazardous conditions are imminent or apparent, an appropriate application of de-icing mixture should be applied.

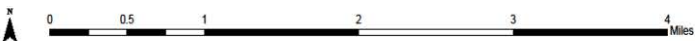
When snow has fallen in sufficient quantities, plowing operations shall begin and continue until the roadway network has met the described Level of Service. The first priority for plowing shall be to open traffic lanes on Priority designated routes. The second priority for plowing shall be to open traffic lanes on residential designated routes.

After traffic lanes have been opened, de-icing materials shall be applied as needed where slick or snow packed conditions exist.

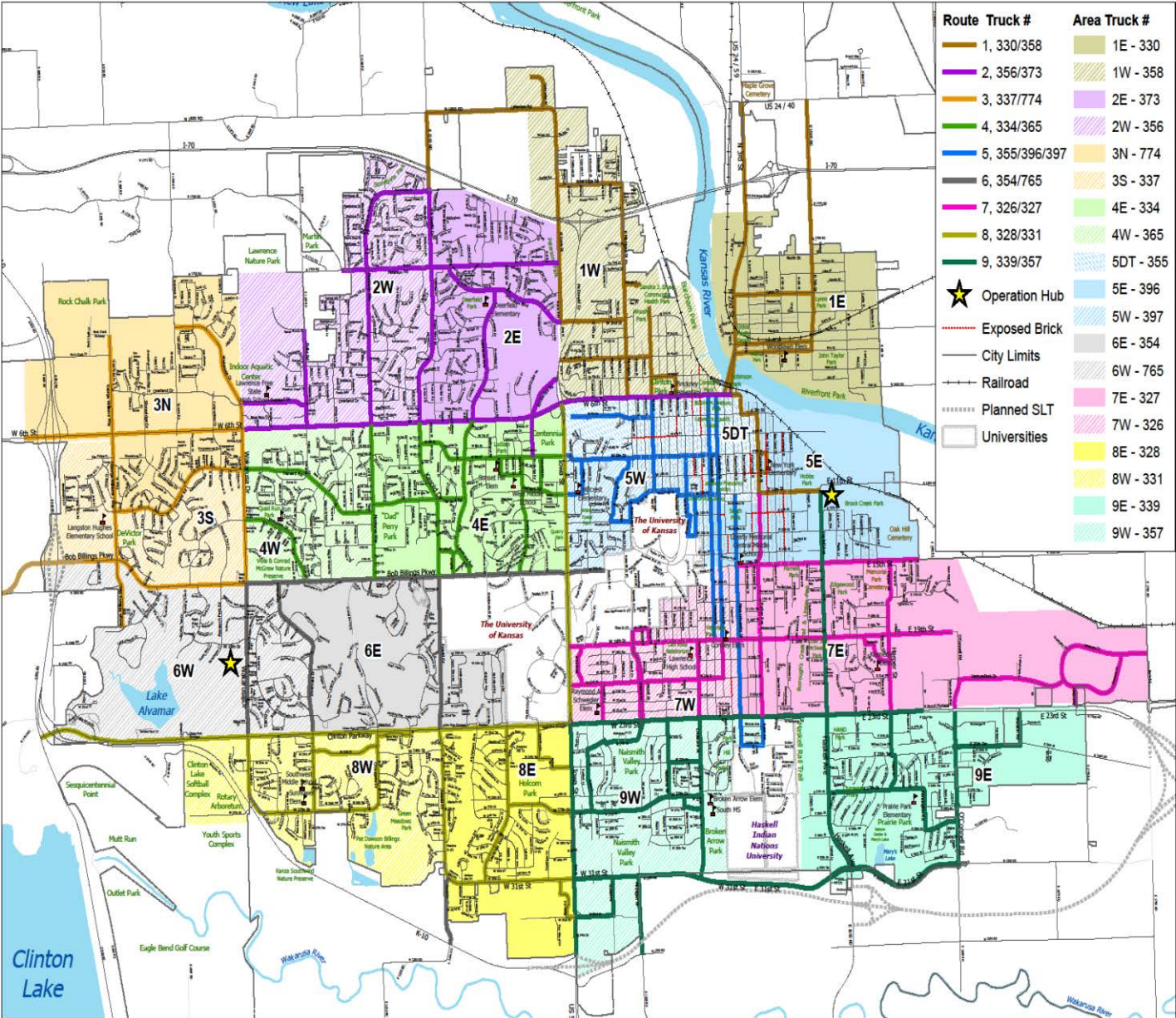
"Plowing back" shall proceed in an orderly manner as the last operation following a snowstorm. An exception to this procedure is locations where drifting is a problem. Plowing back may be part of regular plowing operations in these locations at the discretion of the Storm Operations Manager.

Each operator shall report his progress on his assigned route as requested by radio or cell phone. Additionally, he shall also insure a record is made of the number of loads de-icing material, and liquids used on his route.

Lawrence Snow Response Map



Map Date: 10/29/2015



## Clearing Driveways and Sidewalks

Clearing driveways and sidewalks including windrows along the edge of roadways shall be the responsibility of the property owners. The exception will be the sidewalk locations described in Phase 6 of the snow operations plan.

## Safety

**The departments number one priority is the safety of the public and our employee's to that end ,under no conditions, shall an operator leave the route he is designated to patrol without contacting the field supervisors or Storm Operations Manager.**

The operator of an incapacitated vehicle should stay with that unit until assistance arrives.

## Cleanup

The hard surfaced pavement may require continued application of de-icing materials and plowing to combat freezing of snow melt. This operation shall continue as needed.

## Emergency Situations

Department resources are available to aid emergency vehicles responding to calls in The City of Lawrence during a snow and ice control operation if requested.

## Property Damage

Repair of mailboxes shall be the City's responsibility in cases when it is determined by the Storm Operations Manager or his designee that they have been struck, disturbed or damaged by road maintenance equipment or displaced snow from snowplows. Rigid and/or oversized mailbox supports will not be replaced or allowed to remain they will be reset on breakaway supports with the mailbox cantilevered toward the road. Personal property damage should be reported to the Snow Operations Center at 832-3031.



# **SNOW AND ICE OPERATIONS**

## **CALL-OUT PROCEDURE**

Notification priority for snow and ice control problems is as follows:

One of the following individuals shall be designated by the Director as the Storm Operations Manager (SOM) for a particular storm event. The SOM shall coordinate operations utilizing the input of field supervisors and shall oversee the work efforts of all field crews, assess road conditions, assess the need for changes in operational efforts, assess the need for acquisition of materials, equipment, contractors, etc.

1. - Mike Perkins, Street Division Manager
2. - Mark Thiel, Assistant Public Works Director
3. - Chuck Souls, Public Works Director
4. - Dave Kraus, Storm Water Supervisor
5. - Bryce Campbell, Levee Supervisor
6. - Tim Cast, Concrete Crew Supervisor
7. - Bill Nye, Asphalt Crew Supervisor

When inclement weather threatens, the Director or his designated SOM may place department personnel on patrol over the city road network to watch for deteriorating road conditions. The person(s) on patrol shall contact the Storm Operations Manager when conditions deteriorate. A sufficient work force will then be called to begin work in an appropriate manner.

If the SOM is notified by Law Enforcement personnel of icing conditions, he shall dispatch department personnel to assess roadway conditions, taking steps to address that particular problem, and proceed with the necessary steps to inspect the remaining roadway network for similar problems. Additional personnel may be called when warranted.

Public Works/Street Division Personnel shall be assigned to two 12-hour shifts. The Storm Operations Manager shall select one shift from which to acquire personnel for any snow and ice event. If sufficient personnel cannot be obtained to operate an event from that shift, the personnel on the second shift shall be individually contacted. When necessary, the 12-hour Shift shall be implemented by the Storm Operations Manager to ensure the best and most efficient effort is exerted in cleaning roadways.

## **12 HOUR SHIFTS**

The 12-hour shift will be implemented when weather conditions indicate a protracted effort may be necessary to properly clear the city road network. All Street Division employees will have a personal responsibility to be aware of impending winter weather and make preparations to be available to report as needed.

It will be the responsibility of the Storm Operations Manager or designee to notify personnel of the switch to 12-hour shift operation. Personnel assigned to the shift not immediately going to work shall prepare themselves to report twelve hours later or at a time designated by the Storm Operations Manager.

## **SPLITTING SHIFTS DURING NORMAL WORK HOURS**

Transition to a 12-hour shift operation may take place during normal work hours of a weekday. This may result in some individuals working split shifts.

Occasionally, apparent prolonged storm events may begin on such a timetable as to require splitting of crews and sending some individuals home during a normal workday when the 12-hour shift routine commences. Climactic conditions may change which result in no need for the individuals sent home to return to work. The result is that these workers do not have an opportunity to fulfill their minimum 8-hour day. If this situation occurs, they shall be compensated for 8 hours work.

## **ROTATION OF SUPERVISORS**

To ensure a harmonious shift transition the incoming field supervisors shall report 15 minutes prior to shift change. The out-going supervisors shall provide a shift debriefing of all necessary reports regarding route, equipment and materials status for the incoming supervisors and the Storm Operations Manager for ready reference.

## **ROTATION AND ASSIGNMENT OF PERSONNEL**

The incoming shift shall remain in the employee's room until the outgoing personnel report to their supervisor to proper order. The outgoing supervisor will turn the equipment over to the incoming supervisor who will assign personnel to the equipment (Figure 3).

## City of Lawrence

### Equipment Available for Snow and Ice Control

**2016-2017**

Equipment ID	Year	Manufacturer	Model	Description
<b>Tandem Axle Dump</b>				
<b>328</b>	2008	Freightliner	M2	Truck Tandem Axle Dump Bed
328A	2008	Warren	EAC2400	Salt/Sand Spreader 12 Ton capacity
328B	2008	Monroe		Snow Plow 10 ft.
<b>331</b>	2007	Freightliner	M2	Truck Tandem Axle Dump Bed
331A		Warren	EAC2400	Salt/Sand Spreader 12 Ton capacity
331B		Monroe		Snow Plow 10 ft.
<b>321</b>	2017	Freightliner	108SD	Truck Tandem Axle Dump Bed
321A	2017	Monroe		Snow Plow 12 ft.
321B	2017	Monroe		Salt/Sand Spreader 15 Ton capacity
321C	2017	Monroe		Side/Wing Plow
<b>356</b>	2013	Freightliner	M2	Truck Tandem Axle Dump Bed
356A				Snow Plow 10'
356B		Warren		Salt/Sand Spreader 12 Ton capacity
356C		Henke		Wing Plow 8'
<b>357</b>	2013	Freightliner	M2	Truck Tandem Axle Dump Bed
357A		Warren		Snow Plow 10'
357B		Monroe		Salt/Sand Spreader 12 Ton capacity
0357C		Henke		Wing Plow 8'
<b>707</b>	2010	Freightliner	M2112V	5th Wheel Tractor
<b>339</b>	2015	Freightliner	M2	Truck Tandem Axle Bump Bed
339A		Monroe		Snow Plow 12'
339B		Monroe		Spreader V-Box 15 Ton capacity
339C		Monroe		Side/ Wing Plow 8'
<b>348</b>	2017	Freightliner	108SD	Truck Tandem Axle Dump Bed
348A	2017	Monroe		Snow Plow 12 ft.
348B	2017	Monroe		Salt/Sand Spreader 15 Ton capacity
348C	2017	Monroe		Side/Wing Plow 8'
<b>352</b>	2017	Freightliner	108SD	Truck Tandem Dump Barrel Bed
352A	2017	Monroe		Snow Plow 12 ft.
352B	2017	Monroe		Salt/Sand Spreader 12 Ton capacity
352C	2017	Monroe		Side/Wing Plow 8'
<b>351</b>	2017	Freightliner	108SD	Truck Tandem Axle Dump Bed

351A	2017	Monroe			Snow Plow 10 ft.
351B	2017	Monroe			Salt/Sand Spreader 15 Ton Capacity
351C	2017	Monroe			Side/Wing Plow
<b>Single Axle Dump Truck</b>					
<b>358</b>	2014	International		TerraStar	Single Axle Dump Bed
358A		Boss			Snow Plow 10 ft.
358B	2014	Salty Dog			Sander Spreader 5 Ton Capacity
<b>359</b>	2015	International		TerraStar	Single Axle Dump
359A		Boss			Snow Plow 10 ft.
359B	2014	Salty Dog			Sander/ Spreader 5 Ton Capacity
<b>373</b>	2014	Freightliner		M2-108	Single Axle Dump Truck
373A		Henke			Snow Plow 10'
373B		Warren			Salt/Sand Spreader 5 Ton Capacity
373c		Henke			Snow Plow 8'
<b>765</b>	2011	International		7400	Single Axle Dump Bed
3316	1996	Warren		12EAC2420A	Salt/Sand Spreader 7 Ton Capacity
316		Monroe		MP36R10-ISCT,106A	Snow Plow 10 ft.
<b>774</b>	2014	Freightliner		M2-108	Single Axle Dump
774A	2014				Snow Plow 10'
774B		Warren			Salt/Sand Spreader
774C		Henke			Snow Plow 8'
<b>Truck 1 Ton 4x4 Flat Bed</b>					
<b>366</b>	2006	Ford		F350	Truck 1 Ton 4x4
366A	2005	Warren		AC1410A-8	Sander Spreader 1.8 yd.
366B	2005	Western		60308	Snow Plow 8' 6"
<b>397</b>	2008	Ford		F350	Truck 1 Ton 4x4
397A	2007	Western		Icebreaker	Sander Salt/Sand Spreader 8' Stainless
397B	2007	Western		60308	Snow Plow 8'6" Pro Plow
<b>396</b>	2008	Ford		F350	Truck 1 Ton 4x4
396A	2007	Western		Icebreaker	Sander Salt/Sand Spreader 8' Stainless
396B	2007	Western		60308	Snow Plow 8'6" Pro Plow
<b>355</b>	2013	Ford		F350	Truck 1 Ton 4x4
3345	1999	Warren		AC1420A-8	Salt/Sand Spreader
355B	2013	Warren			Snow Plow 8'6" Pro Plow
<b>354</b>	2013	Ford		F350	Truck 1 Ton 4x4
3343	2003	HI-Way		304SS	Salt/Sand Spreader 8'
354B	2013	Warren			Snow Plow 8'6" Pro Plow
<b>337</b>	2006	Ford		F350	Truck 1 Ton 4x4
337A	2006	Western		Icebreaker	Salt/Sand Spreader 1.8 yd.
337B	2006	Western		60308	Snow Plow 8'6"
<b>320</b>	2006	Ford		F350	8' Pickup bed 4x4



320B		2005	Western		60308		Snow Plow 8'6" Pro Blade
3348		1978	Fiberglass		85		1.8yd. Sander or Salt Brine Tank
<b>759</b>		2013	Chevrolet		3500 Silverado		Pickup Truck SRW 4x4
759B			Western				Plow
<b>Rubber Tire Front Loader</b>							
<b>394</b>		2014	John Deere		544K		Loader Rubber Tired
<b>Motor Grader</b>							
<b>310</b>		1985	Caterpillar		12G		Motor Grader 12' Blade
<b>346</b>		1987	Caterpillar		12G		Motor Grader 12' Blade
<b>Farm Tractors</b>							
<b>970</b>		2009	John Deere		6330		Farm Tractor 4x4
		2009	Land Pride		322537		10' Plow Blade
<b>971</b>		2009	John Deere		6330		Farm Tractor 4x4
		2009	Land Pride		244714		10' Plow Blade
<b>Backhoe</b>							
<b>770</b>		2012	John Deere		410J		Backhoe 4x4
<b>771</b>		2012	John Deere		410J		Backhoe 4x4
<b>342</b>		2012	John Deere		410J		Backhoe 4x4
<b>Brine Tanks</b>							
373D		2011	Varitech		AI-1035-1LB-H Spreader		HI-WAY Material Sprayer (slide in unit) 1000 gal.
774D			Varitech		AI-1035-1LB-H Spreader		HI-WAY Material Sprayer (slide in unit) 1000 gal.

## **The snow plan will be divided into 6 phases.**

The phases are as follows;

1. Pre-Event anti-ice pre-treatment
2. Spreading de-icing materials
3. Snow plowing, 1 to 3 inches / spreading De-icing materials.
4. Snow plowing 3 to 5 inches/ spreading De-icing materials
5. Snow plowing over 6 inches/ spreading De-icing materials
6. Sidewalk clearing/ Cleanup

**Note: One or more phases can be in operation at the same time.**

# **PHASE 1**

## **PRE-EVENT ANTI-ICING OPERATIONS**

### **ANTI-ICING LIQUID PRE-TREATMENT ROUTE**

1. Kansas River Bridges from Perry St to 6<sup>th</sup> St, both directions.
2. 9<sup>th</sup> St from Maine to Iowa, both directions.
3. Emery Rd from 9<sup>th</sup> St to Stratford Rd.
4. 11<sup>th</sup> St from Tennessee to West Campus Rd, both directions.
5. Bob Billings Pky from Jay Hawk Towers to Kasold Dr. both directions.
6. 19<sup>th</sup> St from Ousdahl Rd to Iowa St, both directions.
7. Iowa St from 22<sup>nd</sup> St to Bob Billings Pky north bound.
8. 23<sup>rd</sup> St bridges at HINU.
9. Kasold Dr from Clinton Pky to Bob Billings Pky, both directions.
10. Kasold Dr. from Peterson Rd to 6<sup>th</sup> St, both directions.
11. Lawrence Ave from Bob Billings Pky to Princeton Blvd.
12. Grand Vista/Monterey Way from Kasold Dr to Stetson Dr, both directions.
13. Eagle Pass Dr from Grand Vista to Kasold Dr.
14. Harvard Rd from Lawrence Ave to Kasold Dr.
15. Overland Dr from Folk's Rd to Wakarusa Dr.
16. Kings Mill Rd, both directions.
17. Inverness Dr from Clinton Pky to Wakarusa Dr, both directions.
18. Crestline Dr from 9<sup>th</sup> St to Bob Billings Pky.
19. University Dr from Crestline Dr to Stratford Rd and Stratford Rd to Crestline Dr.
20. Louisiana St from 19<sup>th</sup> St to 23<sup>rd</sup> St.
21. All of N2nd/N3rd already not covered.
22. All of 6<sup>th</sup> St.
23. All of Iowa not covered.
24. All of 31<sup>st</sup> St/Kasold not covered.
25. All of Wakarusa.
26. All of 23<sup>rd</sup> St/Clinton Pky not covered.
27. Tennessee, one way portion.
28. Kentucky, one way portion.
29. N.Iowa/Lakeview Rd.
30. N. Michigan/River Ridge Rd.
31. Massachusetts St from 11<sup>th</sup> St to 23<sup>rd</sup> St.
32. Connecticut St from 15<sup>th</sup> St to 7th St.
33. 14<sup>th</sup> St from Lawrence Ave to Apple lane.
34. Apple Lane from 14<sup>th</sup> St to Bob Billings Pky.
35. Rodger's Place.
36. Big Horn Ct.
37. Arizona and Arizona Ct west of Kasold Dr.
38. Wagon Wheel Rd from Tomahawk to Longhorn Rd. to Kasold Dr.
39. If time permits, all additional streets will be covered.

## **DE-ICING & PLOWING PHASE 2 & 3**

### **AREA 1 – PRIORITIES**

#### **EAST SECTION**

E. 11<sup>TH</sup> ST. - HASKELL AVE TO CONNECTICUT ST.  
CONNECTICUT ST- E 11<sup>TH</sup> ST. TO E 7<sup>TH</sup> ST.  
NEW YORK ST. – FROM AND INCLUDING E 9<sup>TH</sup> TO E 10<sup>TH</sup> ST. AROUND (**SCHOOL**)  
E. 7<sup>TH</sup> ST. - CONNECTICUT ST. TO NEW HAMPSHIRE ST.  
N. 2<sup>ND</sup> / N. 3<sup>RD</sup> ST. – 6<sup>TH</sup> ST. TO CITY LIMITS  
ELM ST. – N 2<sup>ND</sup> TO N 7<sup>TH</sup> ST. (**SCHOOL**)  
LOCUST ST. – N 2<sup>ND</sup> TO N 7<sup>TH</sup> ST.  
LYONS ST. - N 2<sup>ND</sup> TO N 7<sup>TH</sup> ST.  
N 7<sup>TH</sup> ST. – ELM ST. TO 24/40

#### **WEST SECTION**

MISSISSIPPI ST. – W 6<sup>TH</sup> TO W 5<sup>TH</sup> ST. (**SCHOOL**)  
W 5<sup>TH</sup> ST. – MISSISSIPPI TO MAINE ST.  
MAINE ST. – W 6<sup>TH</sup> TO W 2<sup>ND</sup> ST.  
W. 4<sup>TH</sup> ST. - MCDONALD TO MAINE ST.  
MICHIGAN ST. – W 6<sup>TH</sup> TO RIVERIDGE RD.  
GEORGE CT.  
RIVERIDGE RD – N. MICHIGAN TO N. IOWA ST.  
N. IOWA ST. – PRINCETON BLV TO LAKEVIEW RD.  
LAKEVIEW RD. – N. IOWA TO KASOLD DR.  
TIMBEREDGE RD  
KASOLD DR. – LAKEVIEW RD. TO GRAND VISTA DR.



## AREA 2 - PRIORITIES

### EAST SECTION

ROCKLEDGE RD. – W 9<sup>TH</sup> ST. TO McDONALD DR. (KTA)

LAWRENCE AVE. – W 6<sup>TH</sup> ST. TO PRINCETON BLVD. **(SCHOOL)**

PRINCETON BLVD. – N IOWA TO PETERSON RD.

PETERSON RD. – N. IOWA TO E 1130 RD

KASOLD – W.6<sup>TH</sup> TO GRAND VISTA DR.

### WEST SECTION

W. 6<sup>TH</sup> ST. – MASSACHUSETTS ST. TO E. 900 RD.

OVERLAND DR. – FOLKS TO WAKARUSA DR. **(SCHOOL)**

FOLKS RD. – W 6<sup>TH</sup> ST. TO BAUER BROOK CT.

MONTEREY WAY – W 6<sup>TH</sup> ST TO KASOLD VIA GRAND VISTA DR.

## AREA 3 - PRIORITIES

### NORTH SECTION

WAKARUSA DR. – QUEENS RD. TO CLINTON PKWY

### SOUTH SECTION

GEORGE WILLIAMS WAY – ROCK CHALK PKWY TO BOB WHITE DR. (**SCHOOL**)

HARVARD RD. – WAKARUSA DR. TO GEORGE WILLIAMS WAY

## AREA 4 - PRIORITIES

### EAST SECTION

BOB BILLINGS – IOWA TO E. 900 RD.

CRESTLINE DR. - BOB BILLINGS PKWY TO W 9<sup>TH</sup> ST.

CENTENIAL DR. – HARVARD TO W 9<sup>TH</sup> ST.

SCHWARTZ RD. – SOUTH OF W 9<sup>TH</sup> ST. TO CRESTLINE DR. (SCHOOL)

LAWRENCE AVE. – BOB BILLINGS PKWY TO W 6<sup>TH</sup> ST.

W. 14<sup>TH</sup> ST. – LAWRENCE AVE TO KASOLD DR.

APPLE LN. – W 14<sup>TH</sup> ST. TO BOB BILLINGS PKWY

HARVARD RD. – IOWA ST. TO CRESTLINE DR. (SCHOOL)

### WEST SECTION

W. 9<sup>TH</sup> ST. – IOWA ST. TO KASOLD DR.

KASOLD DR. – BOB BILLINGS PKWY TO W. 6<sup>TH</sup> ST.

HARVARD RD. – LAWRENCE AVE. TO KASOLD

HARVARD RD. – KASOLD DR. TO WAKARUSA DR.

MONTEREY WAY – W 6<sup>TH</sup> ST. TO BOB BILLINGS PKWY.

INVERNESS DR. – WAKARUSA DR. TO BOB BILLINGS PKWY. (SCHOOL)

## AREA 5 – PRIORITIES

### WEST / KU SECTION

W 11<sup>TH</sup> ST. – KENTUCKY ST. TO WEST CAMPUS RD.  
WEST CAMPUS RD. – W 11<sup>TH</sup> TO STRATFORD RD.  
STRATFORD RD – WEST CAMPUS RD TO EMERY RD.  
EMERY RD. – STRATFORD TO W 9<sup>TH</sup> ST.  
HILLTOP DR. – W 9<sup>TH</sup> ST. TO HARVARD RD.  
HARVARD RD. – HILLTOP DR. TO IOWA ST. **(SCHOOL)**  
INDIANA ST. – W 9<sup>TH</sup> TO W 13<sup>TH</sup> VIA OREAD AVE  
W 13<sup>TH</sup> ST. – OREAD AVE TO LOUISIANA ST.  
LOUISIANA ST. – W 13<sup>TH</sup> TO W 11<sup>TH</sup> ST.  
W15TH – IOWA TO KU LIMITS  
ALL REMAINING HILLS IN AREA

### EAST SECTION

W 9<sup>TH</sup> ST. – KENTUCKY TO IOWA ST.  
TENNESSEE ST. - W 6<sup>TH</sup> ST. TO W 19<sup>TH</sup> ST.  
KENTUCKY ST. – W 6<sup>TH</sup> ST. TO W 19<sup>TH</sup> ST.  
MAINE ST. – W 6<sup>TH</sup> TO FAMBROUGH DR.  
W 7<sup>TH</sup> ST. – MAINE ST. TO HIGH POINT APT. DEAD END

### DOWNTOWN SECTION

MASSACHUSETTS ST. – W 11<sup>TH</sup> ST. TO INDIAN AVE.  
RIVER BRIDGE OVER KAW  
INDIAN AVE. - MASSACHUSETTS ST. TO BARKER AVE.  
BARKER AVE. – INDIAN AVE. TO E 23<sup>RD</sup> ST.  
E 14<sup>TH</sup> ST. - MASSACHUSETTS ST. TO CONECTICUT ST. **(SCHOOL)**  
**SALT ONLY AREA “NO SAND”- 6<sup>TH</sup> ST. TO NORTH PARK ST. / NEWHAMPSHIRE ST. TO VERMONT ST.**



## AREA 6 – PRIORITIES

### EAST SECTION

INVERNESS DR. – BOB BILLINGS PKWY. TO CLINTON PKWY.

### WEST SECTION

KASOLD DR. – BOB BILLINGS DR. TO IOWA VIA 31ST  
E 1200 RD – KASOLD DR. TO BY PASS

## AREA 7 – PRIORITIES

### EAST SECTION

19<sup>TH</sup> ST. – CITY LIMITS TO IOWA ST.

STEWART AVE. – WEST 19<sup>TH</sup> ST. TO WEST 21<sup>ST</sup> ST.

E 15<sup>th</sup> – MASSACHUSETTS ST. EAST TO CITY LIMITS

HARPER ST. – EAST 15<sup>TH</sup> ST. TO 23<sup>RD</sup> ST.

DAVIS RD. – EAST 19<sup>TH</sup> ST. TO HARPER ST. **(SCHOOL)**

VENTURE PRK. DR. – K-10 TO GREENWAY CIR.

EAST HILLS BUSINESS PARK – GREENWAY CIRCLE / GREENWAY DR.

### WEST SECTION

BARKER / CONNECTICUT – E.23<sup>RD</sup> TO E 11TH

LOUISIANA ST. – EAST 19<sup>TH</sup> ST. TO WEST 23<sup>RD</sup> ST. **(SCHOOL)**

WEST 21<sup>ST</sup> ST. – IOWA ST. KENTUCKY ST.

KENTUCKY ST. – WEST 21<sup>ST</sup> ST. TO EAST 19<sup>TH</sup> ST.

NAISMITH DR. – WEST 23<sup>RD</sup> ST. TO WEST 18<sup>TH</sup> ST.

WEST 18<sup>TH</sup> ST. – NAISMITH DR. TO MISSOURI ST.

MISSOURI ST. – WEST 18<sup>TH</sup> ST. TO WEST 19<sup>TH</sup> ST.

OUSDAHL RD.- WEST 21<sup>ST</sup> ST. TO WEST 23<sup>RD</sup> ST.

## AREA 8 – PRIORITIES

### EAST SECTION

IOWA ST. –WEST 6<sup>TH</sup> ST. to K-10

CRESTLINE DR. – CLINTON PKWY. TO WEST 24<sup>TH</sup> TERR. VIA MELROSE LN.

WEST 24<sup>TH</sup> ST. – MELROSE LN. TO IOWA ST.

LAWRENCE AVE. – CLINTON PKWY. TO WEST 31<sup>ST</sup> ST.

WEST 27<sup>TH</sup> ST. – LAWRENCE AVE. TO IOWA ST.

NEIDER RD. - W 31ST TO W 33<sup>RD</sup> ST. TO IOWA ST.

### WEST SECTION

CLINTON PKWY. –IOWA ST. TO DAM RD. / E. 900 RD.

CROSSGATE DR. – CLINTON PKWY. TO WEST 27<sup>TH</sup> ST.

WEST 27<sup>TH</sup> ST. – CROSSGATE TO WAKARUSA DR.

WAKARUSA DR. – W. 27<sup>TH</sup> ST. TO CLINTON PKWY.

INVERNESS DR. – CLINTON PKWY. TO W. 27<sup>TH</sup> ST. (SCHOOL)

WEST 24<sup>TH</sup> ST. – INVERNESS TO CROSSGATE DR.

CLINTON PKWY FRONTAGE – CROSSGATE DR. TO HAWTHORN DR.

## AREA 9 – PRIORITIES

### EAST SECTION

23<sup>RD</sup> ST. – IOWA ST. TO K-10

HASKELL AVE. – EAST 11<sup>TH</sup> ST. TO 31<sup>ST</sup> ST. (CITY LIMITS)

HARPER ST. – E. 23<sup>RD</sup> TO E. 27<sup>TH</sup> ST.

E 27<sup>TH</sup> ST. – HASKELL AVE. TO KENSINGTON RD.

KENSINGTON RD. – EAST 27<sup>TH</sup> ST. TO EAST 29<sup>TH</sup> ST. **(SCHOOL)**

EAST 29<sup>TH</sup> ST. – KENSINGTON RD. TO O'CONNELL RD.

O'CONNELL RD. – EAST 23<sup>RD</sup> ST. TO NORTH 1300 RD.

EAST 25<sup>TH</sup> TERR. – O'CONNELL RD. TO FRANKLIN RD.

FRANKLIN RD. – E. 25<sup>TH</sup> TERR. TO E 23<sup>RD</sup> ST.

### WEST SECTION

W 33<sup>RD</sup> ST. – IOWA TO OUSDAHL RD.

31<sup>ST</sup> ST. – IOWA TO O'CONNELL RD.

S. MICHIGAN – 31<sup>ST</sup> TO BY-PASS BRIDGE

OUSDAHL RD. – WEST 33<sup>RD</sup> ST. TO WEST 31<sup>ST</sup> ST.

WEST 27<sup>TH</sup> ST. – IOWA ST. TO LOUISIANA ST.

LOUISIANA ST. – W 31<sup>ST</sup> ST. TO W 23<sup>RD</sup> ST. **(SCHOOL)**

RIDGE CT. – WEST 27<sup>TH</sup> ST. TO WEST 24<sup>TH</sup> ST.

WEST 24<sup>TH</sup> ST. – RIDGE CT. TO W 23<sup>RD</sup> ST. VIA NAISMITH DR.

ALABAMA ST. – W 23<sup>RD</sup> ST. TO W 27<sup>TH</sup> ST.

W 25<sup>TH</sup> ST. – ALABAMA ST. TO LOUISIANA ST.

BELLE HAVEN DR. – W 27<sup>TH</sup> ST. TO W 27<sup>TH</sup> TERR.

WEST 27<sup>TH</sup> TERR. – BELLE HAVEN DR. TO LOUISIANA ST.

## **STREETS TO BE PLOWED TO THE LEFT**

### **AREA 2**

WRENCE AVE – 6<sup>TH</sup> ST. TO PRINCETON BLV.  
PRINCETON BLV. – N. IOWA ST. TO PETERSON RD.

### **AREA 4**

KASOLD DR. – BOB BILLINGS BLV. TO 6<sup>TH</sup> ST.

### **AREA 5**

TENNESSEE - 6<sup>TH</sup> ST. TO 19<sup>TH</sup> ST.  
KENTUCKY ST. – 19<sup>TH</sup> ST. TO 6<sup>TH</sup> ST.  
UNIVERSITY DR. – IOWA ST. TO WEST CAMPUS  
STRATFORD DR. - IOWA ST. TO WEST CAMPUS  
WEST HILLS TER. AND WEST HILLS PKWY.  
RHODE ISLAND – E. 8<sup>TH</sup> ST. TO E. 7<sup>TH</sup> ST.

### **AREA 7**

NAISMITH DR. – W. 18<sup>TH</sup> ST. TO W. 23<sup>RD</sup> ST.

## **PHASE 4**

### **MODERATE TO HEAVY SNOW ACCUMALATIONS GREATER THAN 3 INCHES**

After 3" and up to 6" of snow, contractor rental equipment and operators will be hired. In most cases, 2 Motor Graders and operators will be hired to supplement city forces.

1. Grader #1 will be assigned first to the area west of Iowa and north of Clinton Pky and will work west to Inverness.
2. Grader #2 will be assigned first to the area west of McDonald Dr. and north of 6th St and work west to Monterey Way.
3. The Street Division's 2 graders and 2 farm tractors with rear blades will be used to plow neighborhood streets after priority 1 & 2 routes are plowed. (This phase of the plan requires removing operators from trucks, and replacing them with support personnel.)



## PHASE 5

### HEAVY SNOW ACCUMILATIONS GREATER THAN 6 INCHES

When snow depths reach at least 5" and there is a prediction of 7" or greater, Phase 5 will be put into effect. The Utilities and Parks and recreation Departments will be directed to perform critical snow removal around the water and waste water plants and public buildings that will remain open during a large winter storm. Once that is completed, Utilities will supply 2 back-hoes and 2 large dump trucks, all with operators, in 12 hours shifts to the Street division for assignment. Park and recreation will first help with the clearing of the downtown area and then supply 3 operators for assignment to Street Division equipment and one large truck with operator in 12 hour shifts for assignment. Additional rented equipment will be ordered as necessary.

1. Equipment rented during phase 4 will continue to work in neighborhoods as directed.
2. Additional contractor equipment and operators will be hired to assist in the clearing and removing snow in the Downtown District. Parks and Recreation crews will clear intersections and crosswalks.
  - a) When snow levels reach Phase 5 a Downtown Operations Plan will be put into effect. Snow that has accumulated outside of the travel way will be cleared from parking areas, and plowed into the center of the roadway to be loaded and hauled away, this operation will impact traffic flow intermittently. De-icing chemicals will be applied as need to combat snow pack and re-freezing.
3. 2 Dump trucks from Utilities and 1 Dump truck from Parks and Recreation will plow all of North Lawrence, the area east of Connecticut between 7th St and 19th St and Old West Lawrence.
4. 2 Back-hoes from Utilities will clear intersections on priority 1 plow route for trucks 326, 327, 707, 329 and 334.
5. 3 Street Division staff will continue to operate the Divisions 2 graders and farm tractor and Park and Recreation operators will be assigned Street division small trucks to follow and assist them.
6. In case of a water break or other Utility emergency, Utility crews will be re-assigned back to Utilities. Care will be taken to protect Utilities employee's hours of service during water emergencies.
7. During Phase 5 operations, the sanitation wheel loader and employee will be assigned to clearing and maintaining the Public Works complex on 11th St (fueling station, maintenance shops and parking areas).
8. After all streets are cleared, Street employees will work with Park and Recreation staff in clearing areas put off while Park and Recreation employees were working for the Street Division.

## **PHASE 6**

### **SIDEWALK CLEARING/CLEANUP**

1. South side of 9<sup>th</sup> St from Emery Rd to Sunset Dr.
2. East side of Iowa from the Zarrco Station to University Dr.
3. West of Iowa from Terrace Rd to Bob Billings Pkwy.
4. South side of Iowa St from 19<sup>th</sup> to 22<sup>nd</sup> St.
5. The traffic islands at 23<sup>rd</sup> and Iowa St.
6. North side of 6<sup>th</sup> St from Bluffs Dr to Garber Automotive.
7. South side of 6<sup>th</sup> St from Arizona to Schwartz Rd.
8. North side of 6<sup>th</sup> St from #3 Fire Station to Monterey Way.
9. West side of Wakarusa Dr from the Wakarusa Service Center to Fire Station #4.