



City of Leavenworth
100 N. 5th Street
Leavenworth, Kansas 66048

CITY COMMISSION STUDY SESSION
COMMISSION CHAMBERS
TUESDAY, OCTOBER 4, 2022 6:00 P.M.

Welcome to your City Commission Study Session – Please turn off or silence all cell phones during the meeting
Meetings are televised everyday on Channel 2 at 6 p.m. and midnight and available for viewing on YouTube

Study Session:

1. Saint John Hospital Update (pg. 02)
2. Snow and Ice Control Operation Plan Review (pg. 03)
3. Pavement Management Plan Update (pg. 45)
4. Solid Waste Operations Discussion – Poly-cart Program (pg. 46)

Policy Report
Saint John Hospital Update
October 4, 2022

Prepared by:

A handwritten signature in black ink, appearing to read 'Paul Kramer', written over a horizontal line.

Paul Kramer
City Manager

Issue:

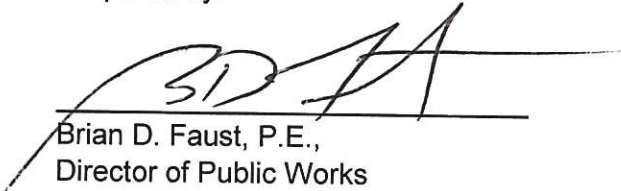
Richard (Wes) Hoyt, CEO of Saint John Hospital, will provide a briefing to the City Commission.

POLICY REPORT PWD NO. 22-47
STUDY SESSION - SNOW AND ICE CONTROL OPERATION PLAN

October 4, 2022

Prepared by:

Reviewed by:



Brian D. Faust, P.E.,
Director of Public Works



Paul Kramer,
City Manager

ISSUE:

Review of the Snow & Ice Control Operation Plan.

BACKGROUND:

The City Commission reviews the Snow and Ice Control Operation Plan annually. The plan was first written in October 1993 and is reviewed annually and updated as needed. The current version of the plan is dated October 4, 2022.

Snow Control meetings are scheduled for October 13, 2022 with City staff, school district, City of Lansing, Leavenworth County and Fort Leavenworth to discuss and coordinate areas of responsibility as well as with our independent contractors. Staff is prepping the equipment for winter usage and will continue training with equipment and driving routes to familiarize themselves with both.

The main changes for the 2022-2023 season are:

- 1) The City will be applying salt brine on hills, bridges and emergency snow routes prior to storm events. The salt brine helps prevent the snow/ice from bonding to the road surface so it's easier to remove.
- 2) In the past, the City did not drop our plows until 2" of snow had accumulated. As traffic packs the snow onto the road surface, it is more difficult to remove. In the 2022/2023 season, we will begin plowing when the snow begins to stick to the pavement.

The City will coordinate with internal resources and local media to distribute this information. This includes *The Leavenworth Times*, and Fort Leavenworth Public Affairs Office. The emergency snow routes will also be broadcast on Channel 2 (local cable access channel) and social media as appropriate. A complete copy of the Snow and Ice Control Operation Plan will be available at the Municipal Service Center and on the City webpage prior to the first winter event.

STAFF RECOMMENDATION:

Staff recommends that the City Commission review the current Snow and Ice Control Operation Plan.

ATTACHMENT:

2022-2023 Snow and Ice Operation Plan

City of Leavenworth Snow & Ice Control Policy Manual

2022-2023 Winter Season



Department of Public Works

Street Division

www.lvks.org

**CITY OF LEAVENWORTH
SNOW AND ICE REMOVAL OPERATION PLAN**

TABLE OF CONTENTS

- A. INTRODUCTION1
- B. SNOW AND ICE CONTROL POLICY1
- C. STORM CLASSIFICATION(S)3
- D. IMPLEMENTATION PROCEDURES.....4
 - 1. Weather/Storm Decision.....4
 - 2. Personnel Notification/Recall4
 - 3. Declaration of Traffic Emergency4
- E. SNOW ROUTES, AREAS, PRIORITIES AND RESPONSIBILITIES.....5
 - 1. City Personnel.....5
 - 2. Contractor Personnel.....5
 - 3. Other Agencies (Lansing, State and County)6
 - 4. Leavenworth Public Schools Inclement Weather Procedures6
- F. SNOW/ICE REMOVAL POLICIES AND PROCEDURES6
 - 1. Snow Emergency Route Ticket Towing Procedures6
 - 2. De-Icer and Abrasive Application Guidelines.....6
 - 3. Snow/Ice Command and Control Center (SNICCC).....6
 - 4. Media Interface7
 - 5. Accidents.....7
- G. MANPOWER AND EQUIPMENT ASSIGNMENTS8
- H. SAFETY8
- I. PRE-WINTER SEASON PREPARATION9
- J. POST-OPERATION PROCEDURES.....10
- K. INDEX

CITY OF LEAVENWORTH
SNOW AND ICE REMOVAL OPERATION PLAN

APPENDICES

I.	Public Works Division Recall Rosters – (Published Separately from Plan)	I-1
II.	Snow/Ice Routes and Priorities, City Operations Division.....	II-1
	Emergency Snow Routes (Map)	II-2
	Snow and Ice Routes (Map).....	II-3
	Downtown Snow Removal (Map)	II-4
	Parking Lots West of 4 th Street (Map)	II-5
	Parking Lots East of 4 th Street (Map)	II-6
	Parking Lots at LV Public Library (Map).....	II-7
	Parking Lot Table	II-8
	School Zones.....	II-9
III.	Water Pollution Control Division	III-1
IV.	Parks Maintenance Division	IV-1
V.	Solid Waste Management & Maintenance Operations.....	V-1
VI.	Contractor Support to Snow/Ice Removal Operations.....	VI-1
	Contractor’s Areas of Responsibility.....	VI-2
	Residential Zone Plowing/De-Ice (Map)	VI-3
VII.	Matrix of Snow/De-icing Treatment Procedures.....	VII-1
VIII.	Work Management Forms and Logs	VIII-1
	Snow/Ice Control Operator Worksheet.....	VIII-2
	Dispatch Sheet	VIII-3
	Snow/Ice Storm Data	VIII-4
IX.	State, County, Leavenworth and Lansing’s Areas of Responsibility	IX-1
X.	Leavenworth Public Schools Inclement Weather Procedure.....	X-1
	Fort Leavenworth Weather Procedures	X-2

A. INTRODUCTION

The purpose of the Snow and Ice Removal Operation Plan is to provide personnel involved in snow and ice removal a single source document which defines the City of Leavenworth's policies and procedures in snow and ice operations.

All snow and ice control operations are considered emergency in nature due to public safety and the economic impact to the community. Regardless of the time of day, snow and ice operations will be accomplished as expeditiously as possible in conjunction with the priorities outlined in this plan.

The snow and ice season in Kansas (Leavenworth) can begin as early as October and terminate as late as mid-April. Accumulation of snowfall or ice is affected by atmospheric temperature, pavement temperature, moisture content, wind direction and velocity, and intervals between storms. While this plan tries to cover the major operations during a snow or ice storm, each storm event is unique and flexibility within the plan is needed to address changing conditions.

This plan supersedes all other plans and policies previously published by the City of Leavenworth for snow and ice control.

B. SNOW AND ICE CONTROL POLICY

1. The policy of the City of Leavenworth is to clear snow and ice in the following order:

- Emergency Snow Routes
- Public Safety Facilities
- School Loading Zones on City Right of Way
- Leavenworth Central Business District
- Residential Streets

Pavement pretreatment and snow removal and de-icing will be conducted as expeditiously as possible before, during and after the storm event. Pretreatment of emergency snow routes, hills and hot spots with salt brine will occur before the storm and plowing and the use of salt, as necessary, will occur during and after the conclusion of the event. The City does not have a bare pavement policy.

2. Snow and ice control operations on all City streets will be prioritized based on what is of immediate need for public safety and economic impact to the community. Priorities and standards of service for snow and ice removal operations are as follows:

(Priority 1): All designated Emergency Snow Routes, which are the main arterial and collector roads, will be given the first priority for plowing and de-icing. Signage designating Emergency Snow Routes is posted on these routes. A complete list of all Emergency Snow Routes are on the city's website. As resources become available, City personnel will plow and de-ice public safety facilities (Police, Fire Stations, Emergency Medical Services and School Loading Zones).

Priority 2: Snow removal and de-icing operations at the conclusion of the storm event will shift to the Central Business District (downtown) and the residential streets within the City limits. Snow will be plowed in residential areas if the accumulation exceeds 3 inches. Residential collector streets will be plowed first with cul-de-sacs plowed last. Contract personnel may be used to plow residential streets depending on availability of city crews. This determination will be made by the Director of Public Works. If an icing storm occurs, City Personnel will treat residential streets with salt as required. Alleys will not be plowed or de-iced during snow and ice removal operations unless verified emergency requirements so dictate that selected alley(s) be plowed or de-iced.

3. Snow will be plowed in a manner which minimizes traffic obstructions. Snow will be plowed from the center line to the right shoulder. Initial plow will be two passes, one each direction. Additional plowing closer to the edge of the street will be done as weather and time allow.
4. A snow "Traffic Emergency" will be announced in the local press, radio, and other media. A "Traffic Emergency" can only be declared by the City Manager or in his absence the Chief of Police.¹ In the event of a declaration of a "Traffic Emergency", residents who have vehicles parked on Emergency Snow Routes will have two hours to move their vehicles after the declaration. Vehicles parked on Emergency Snow Routes after this time will be towed. The City will ticket and/or tow vehicles that become immobilized if they do not have snow tires or chains. Vehicles will be towed to the nearest garage or place of safety and the vehicle may not be recovered until towing and storage charges are paid.²
5. Plowing of streets will result in snow being plowed into driveways and on sidewalks. City personnel will not clear plowed-in driveways or sidewalks. Shoveling of snow back into the street is not permitted and will likely result in snow being plowed back on the driveway and on sidewalks during the next pass.
6. Citizens are required to clear snow and ice from the sidewalks and sidewalk ramps adjacent to their property within 24 hours after the snowfall or ice storm has stopped.³
7. In the event that the storms' severity and intensity causes unsafe conditions for City personnel clearing and/or de-icing streets, operations will cease pending acceptable weather conditions that do not pose a severe threat to personnel.
8. The following streets will be closed during inclement weather. The grade of these streets is such that it presents a safety issue for snow and ice control as well as safe public travel.
 - Shawnee Street (Hill) from 21st Street to 22nd. Residents will use alternate access via Ottawa Street and 22nd Street.

¹ Code of Ordinances, City of Leavenworth, Kansas, Chapter 44, Article V, Section 44-186

² Code of Ordinances, City of Leavenworth, Kansas, Chapter 44, Article V, Section 44-188

³ Code of Ordinances, City of Leavenworth, Kansas, Chapter 42, Article 1, Section 42-6

- Dickson Street will also be closed between Santa Fe and Sheridan.
9. The City Snow/Ice Command and Control Center (SNICCC) located at the Municipal Service Center will provide snow/ice removal updates as required during storm operations. The telephone number at the Municipal Service Center is 682-0650 for citizen questions and requests for service.
 10. If snow plowing damage occurs to private property, it should be reported to the Municipal Service Center as soon as possible at 682-0650.

C. STORM CLASSIFICATIONS

1. Each snow or ice storm will be unique and vary in intensity, duration and total precipitation. This section will identify a basic classification system to assist in the establishment of priorities of equipment, material and manpower. The storm classification system will utilize the estimated total expected snowfall for snow and total ice glazing for ice storms.

2. Classes of Storms

a) SNOWSTORMS

- 1) **Class A** is defined as a storm of extremely heavy snowfall of 8 inches or more occurring in a period of 24 hours or less. This type of storm will cause life-threatening conditions and potentially cause significant adverse economic impacts. When weather forecasts indicate that a Class A storm is imminent, the SNICCC will be activated by direction of the Director of Public Works. All City assets will be mobilized as required. The City Manager, or in his absence the Chief of Police, based on the best available staff counsel and weather reports will declare a Traffic Emergency. The Public Information Officer will make all media notifications (radio, local newspapers and social media).
- 2) **Class B** is defined as a storm of moderate to heavy snowfall within the estimated range of 3 - 8 inches. This type of storm can pose the same threats to public safety and the local economy (as a Class A), but its intensity should allow the City Public Works Department to keep the Emergency Snow Routes open during the storm. Class B storms will normally not require the declaration of a snow emergency; however, as the storm progresses it could be upgraded to a Class A, necessitating the declaration of a snow emergency. The Snow/Ice Command and Control Center will be activated in the same fashion as with the Class A storm.
- 3) **Class C** is defined as a storm with an accumulation of 1 to 2 inches. The Snow/Ice Command and Control Center will not be fully activated. All control and reporting operations will be managed by the City Operations Division.

b) ICE STORMS*

All ice storms will be rated as a Class A type storm. Ice storms will cause immediate threats to the public safety and the local economy. If an ice storm is imminent or occurs, the

Snow/Ice Command and Control Center will be activated by the Director of Public Works.

c) FREEZING FOG*

Any freezing fog conditions will be rated as a Class B type storm. Fog storms can cause immediate threats to public safety and the local economy (as Class A), but its intensity should allow the City Public Works Department to keep the Emergency Snow Routes open during the storm. If enough freezing fog exists and conditions worsen, the storm could be upgraded to a Class A type storm and rated as an ice storm.

*North facing hills with a history of freezing groundwater will have hot spot status.

D. IMPLEMENTATION PROCEDURES

1. WEATHER/STORM DECISION

- a) Key personnel (Director/Deputy Director of Public Works and Superintendent of City Operations) will monitor forecasted storms utilizing the NOAA weather service and other sources. If a Class A or B storm is predicted, the Director of Public Works or the Superintendent of City Operations will activate the SNICCC. For Class C storms, no formal activation of the SNICCC will be required.

2. PERSONNEL NOTIFICATION/RECALL

- a) It is imperative that each Division within the Public Works Department and other City Departments maintain a current and validated recall roster during the snow and ice season. Every City employee is eligible to be assigned snow and ice control duties by the City Manager dependent on the storm conditions. Quick and pro-active response is the key to the successful implementation of this plan. The Superintendents of City Operations, Water Pollution Control, and the City's Parks Division will prepare, no later than the first working day of November each year, a division recall roster (**See APPENDIX I**). Rosters will be updated by the Superintendents as required.
- b) Upon activation of the (SNICCC) (Class A and B storms) the recall roster for the City Operations, Parks and Water Pollution Control will be activated as required.

3. DECLARATION OF TRAFFIC EMERGENCY

- a) Only the City Manager can declare a Traffic Emergency. Based on known weather forecasts/observations/classifications of the storm and staff recommendations, the City Manager, or in his/her absence the Chief of Police, will declare a Traffic Emergency.
- b) Any declaration of a Traffic Emergency will be coordinated with the following agencies; Fort Leavenworth, City of Lansing and Leavenworth County. A declaration of a Traffic Emergency should ensure all area agencies concur and implement and terminate the

emergency at the same time.

- c) When a Traffic Emergency is declared, the Public Information Officer will contact the media and announce that a Traffic Emergency is declared and vehicles not removed from snow emergency routes are subject to ticketing and towing.
- d) Ticketing and towing operations will be conducted by the City of Leavenworth Police Department. Section F.1. of this plan covers specifics for these procedures.

E. SNOW ROUTES, AREAS, PRIORITIES AND RESPONSIBILITIES

1. CITY PERSONNEL

- a) The priorities for snow and ice removal by City resources (manpower and equipment) will be in the following priorities: (Note: Priorities may be adjusted due to specific storm conditions.)

Priority 1: Major arterial and collector routes designated as emergency snow routes and public safety facilities (Police, Fire Stations, Emergency Medical Services and School Loading Zones).

Priority 2: Downtown Central Business District, residential streets and city parking lots.

- b) **APPENDIX II** outlines the specific priorities to be plowed and/or de-iced for the emergency snow routes, emergency services and Central Business District for City Operations Division.
- c) **APPENDIX III** outlines the specific actions required by the Water Pollution Control Division for snow and ice removal.
- d) **APPENDIX IV** outlines the specific actions required by the Parks Maintenance Division for snow and ice removal.
- e) **APPENDIX V** outlines specific actions required by the Solid Waste and Maintenance Operations section for snow and ice removal.

2. CONTRACTOR PERSONNEL

- a) The Department of Public Works will contract on an annual basis with local contractor(s) for snow removal to augment city staff. Contractor personnel will normally be assigned residential zones and may assist with post storm removal of snow from the Central Business District.
- b) Contractor personnel will be incorporated into this plan (**APPENDIX VI**). This appendix will be updated annually and a copy will be provided to each contractor. The appendix will be specific and detail performance standards for each area of responsibility.

3. OTHER AGENCIES - STATE, COUNTY AND CITY OF LANSING (See Appendix IX)
4. LEAVENWORTH PUBLIC SCHOOLS INCLEMENT WEATHER PROCEDURE/FORT LEAVENWORTH
(See Appendix X)

F. SNOW/ICE REMOVAL POLICIES AND PROCEDURES

1. EMERGENCY SNOW ROUTE TICKET-TOWING

Chapter 44, Article V, Section 44-186 to 44-188, City Code.

- a) Whenever snow has accumulated or there is a possibility that snow will accumulate to such a depth that snow removal operations will be required, the City Manager or in the absence of the City Manager, the Chief of Police, may declare a Traffic Emergency and until such Traffic Emergency is **terminated** it shall be **unlawful** two (2) hours after the formal declaration:
 - i. To park a vehicle on any street designated as an Emergency Snow Route in Section 44-186.
 - ii. To operate a motor vehicle on any Emergency Snow Route in such a manner or condition that such motor vehicle stalls and is unable to proceed by reason of the fact that the driving wheels are not equipped with tire chains or snow tires.
- b) The Chief of Police, during a Traffic Emergency, is empowered to waive or suspend enforcement of parking regulations not specifically designated within this article.

2. DE-ICER AND ABRASIVE GUIDELINES

- a) The primary chemical de-icer utilized by the City of Leavenworth will be salt (sodium chloride) and salt brine (mixture of salt and water). Salt will be the primary de-icer of choice when temperatures remain above 20 degrees F. When the temperature falls below 20 degrees F the salt will be pre-wetted with salt brine.
- b) In extreme conditions, the City may apply sand at various locations to help improve traction.
- c) **APPENDIX VII** details in matrix format de-icer applications.

3. SNOW/ICE COMMAND AND CONTROL CENTER (SNICCC)

- a) Upon the determination of a Class A or B storm the SNICCC will be activated at the Service Center.
- b) The Director of Public Works is the senior City staff member who will direct and coordinate all snow and ice removal operations. In his absence the Deputy Director of Public Works or his designee will assume this position. This function will be normally

delegated to the Operations Superintendent.

- c) The Superintendent of City Operations will be responsible to either the Director or Deputy Director of Public Works for the initiation of all snow and ice removal operations delineated in the snow and ice removal plan. The Superintendent of City Operations will be the major coordinator and is the lead supervisor of the SNICCC and will develop supporting plans to execute the Snow and Ice Plan and Operation of the SNICCC.
- d) The following City departments will provide representatives to the SNICCC who will provide liaison and/or support to the Superintendent of City Operations as required. Conflict resolution will be at the Department Director level.
 - 1) Police - one representative to act as liaison between the SNICCC and Police Department. Individual will come with his/her separate communication (radio).
 - 2) Parks and Water Pollution Control - assignment of liaison will be dependent on severity of storms and the Director of Public Works decision.

4. MEDIA INTERFACE

- a) It is imperative that the general public be informed on a regular basis during Class A and B storms of the City's efforts in all aspects of snow and ice removal operations.
- b) All media releases will be made by either the Assistant City Manager or the Director of Public Works. Prior to any release, concurrence and approval of the media up-date will be obtained from the City Manager.

5. ACCIDENTS

- a) All accidents involving City vehicles occurring during snow and ice removal operations will be reported immediately by radio or cell phone to the supervisor on duty. The supervisor will contact PD as appropriate.
- b) Accidents are to be reported as follows:
 - 1) Vehicular Damage - An accident report will be filled out at the scene of occurrence, in addition to the radio report. Standard City accident procedures and forms will be utilized. Additionally, a law enforcement official will investigate the accident at the scene prior to the continuing of snow and ice removal operations by the City vehicle involved.
 - 2) Private Property Damage – If the snow plow operator observes the damage of either mail boxes or fences, he will immediately report this type of damage by radio or cell phone to the supervisor on duty. The radio report will include the time of the incident and address. The driver is not required to fill out an accident report; a radio or cell

phone report will suffice. All complaints of damage received by residential phone calls will be recorded and investigated to substantiate the subject claim. All damage resulting from the snow removal operations and/or equipment will be treated as normal protocol for accident reporting.

G. MANPOWER AND EQUIPMENT ASSIGNMENTS

1. During a Class A or B storm the City Operations Division will commence a two (2) shift operation. Each shift will be twelve (12) hours in duration.
2. Shift times will vary dependent on time of storm prediction. Every attempt will be made to balance shift over time hours equally among snow/ice removal operators.
3. The City Operations Division will be the primary manpower and equipment resource for all snow and ice removal operations. However, during sustained snow and ice removal operations, the Water Pollution Control and Parks Divisions can be tasked by the Director/Deputy Director of Public Works to provide both manpower and equipment resources to support the City Operations Division in snow and ice removal operations. Consequently, the Superintendents of both Water Pollution Control and Parks will provide, through the Director of Public Works to the City Operations Division, a listing of qualified heavy and light equipment operators and the equipment they are qualified to operate. This listing will be forwarded no later than the first working day of November of each year. Additionally, equipment available to support snow and ice removal will be included with the required operator listing above.

H. SAFETY

1. All operators will operate snow/ice control equipment in a safe manner. Speeds will be kept to a safe minimum sufficient to plow and windrow snow to the shoulder. Operators will not plow at excessive speed causing snow to "fly" at a high speed and distance from the street shoulder.
2. Operators will not run red lights or stop signs at intersections.
3. Operators will plow from the street centerline to the right street shoulder. This includes tandem plowing. At no time will a plow cross the centerline in the lane of oncoming traffic.
4. Operators will ensure their assigned vehicle and plow is operational to include emergency vehicle lighting. Any deficiencies will be reported immediately to the Street Foreman or the Operations Superintendent.
5. Operators on 12-hour shifts will take appropriate breaks as required during their shift. Breaks will be at the discretion of the individual operator. Breaks will be reported to the SNICCC.
6. Meal times will be scheduled and coordinated by the SNICCC.

7. Authority to exceed 12 hours in a shift will be determined by the Operations Superintendent or Street Foreman.
8. If the intensity of a storm is of such an intensity to cause danger to snow/ice control operators, operations will be terminated pending weather improvement.
9. Operators and snow personnel will wear appropriate winter clothing to help ensure cold weather injuries are not received.

I. PRE-WINTER SEASON PREPARATION

1. Commencing in October and continuing through the fall and winter season, the Superintendent of City Operations will schedule recurring training that will focus on snow and ice control issues to include cold weather risks to operators. Additionally:
 - a) All operators and mechanics will attend pre-winter workshop as offered and required. Selected personnel will attend and participate in the annual APWA (American Public Works Association) "Snow Plow Rodeo."
 - b) City Operations Division personnel will hold group meetings to discuss known strengths and weaknesses in preparation to the snow and ice season. These meetings will be conducted as required and chaired by the Superintendent of City Operations.
 - c) Route "dry runs" will be conducted by all operators prior to mid-November to ensure all are familiar with the Emergency Snow Routes.
 - d) New operators will be assigned to an experienced operator (mentor) to receive training on all phases of snow and ice control. New operators will receive this training in pre-season and during the actual snow and ice control season. The mentor of the new operator will at the time of new operator proficiency, certify to the Superintendent of City Operations that the new operator is cleared for individual (solo) operation.
 - e) Commencing in October the City Operations Division will prepare and ensure all snow and ice removal equipment is prepared and operational for mounting to its assigned prime mover.
 - f) All salt spreaders will be calibrated by a qualified contractor or City staff. The Superintendent of City Operations and Foreman will ensure maximum efficiency.
 - g) Salt spreaders will be mounted on the prime movers (tandem and single axle dump trucks and 1 ton trucks) prior to storm events. At least one truck will have a spreader on at all times after construction season.
 - h) Inspect the disposal site for snow at 2nd and Chestnut. Backing will be permissible at the disposal site, but the driver must get out and check the surroundings before backing.
 - i) Tanks for storage of salt brine pre-treatment solution will be filled.

J. POST-OPERATION PROCEDURES

1. During storm, at each shift change the "oncoming" shift operator will report one half hour prior to shift change. The "outgoing" operator will perform the required maintenance and services of his assigned equipment prior to relief from shift. These services include the following:
 - Fuel top-off
 - Fluid checks
 - Windshield washer fluid replacement
 - Tire pressure
 - Fill salt spreader with material being used, to include pre-wetting with salt brine as needed
 - Check snow plow cutting edges and snow deflectors
 - Check emergency lighting

2. After storm, all equipment will receive a thorough inspection to include all operator-required services. Salt spreaders will be lubricated and/or de-salted as required. All known maintenance deficiencies will be reported to the Superintendent of City Operations and/or Street Foreman for immediate correction.

PUBLIC WORKS DIVISION RECALL ROSTERS

(Published Separately from Plan)

CITY OF LEAVENWORTH EMERGENCY SNOW ROUTES

The following routes have been designated "Emergency Snow Routes" under Chapter 44, Traffic and Vehicles, Article V, Emergency Snow Routes, Section 44-189 Establishment of Routes; Posting of Signs by the Leavenworth City Commission on November 24, 2020.

Two hours after the declaration of a "Snow Emergency" by the City Manager, all vehicles must be removed from the streets shown below. Failure to move your vehicle subjects it to being towed, and the fee for the towing will be assessed against you. Your cooperation in this important civic matter is appreciated. (Section 44-188 Removal of vehicles.)

East-West Streets:

- | | |
|---------------------------|--|
| • Cherokee Street | 3 rd Street to 20 th Street |
| • County Road 5 | 15 th Street to Michals Road |
| • Eisenhower Road | 4 th Street to 20 th Street Trafficway |
| • Home Place | Wilson Avenue to Limit Street |
| • Kiowa Street | 3 rd Street to 4 th Street |
| • Limit Street | Homeplace to 20 th Street Trafficway |
| • Marion Street | 4 th Street to Wilson Avenue |
| • McDonald Road | Hughes Road to Shrine Park Road |
| • Michals Road | Tonganoxie Road to Richmond Drive |
| • Muncie Road | 4 th Street to 10 th Avenue |
| • Ohio and LeCompton Road | 10 th Avenue to City Limits |
| • Ottawa Street | 3 rd Street to 20 th Street |
| • Pennsylvania Avenue | 4 th Street to 10 th Avenue |
| • Shawnee Street | 3 rd Street to 20 th Street |
| • Spruce Street | 3 rd Street to 15 th Street |
| • Thornton Street | 4 th Street to 10 th Avenue |
| • Thornton Street | 17 th Street to 19 th Street Terrace |
| • Vilas Street | 10 th Avenue to 25 th Street |

North-South Streets:

- | | |
|--------------------------------------|---|
| • 2 nd Avenue | Spruce Street to Limit Street |
| • 3 rd Street | Kiowa Street to Spruce Street |
| • 4 th Street | Metropolitan Avenue to Limit Street |
| • 5 th Avenue | Spruce Street to Thornton Street |
| • 5 th Street | Metropolitan Avenue to Spruce Street |
| • 7 th Street | Metropolitan Avenue to Spruce Street |
| • 10 th Avenue | Spruce Street to Eisenhower Road |
| • 10 th Street | Metropolitan Avenue to Spruce Street |
| • 13 th Street | Metropolitan Avenue to Cherokee Street |
| • 15 th Street | Vilas Street to Limit Street |
| • 17 th Street | Vilas Street to Thornton Street |
| • 18 th Street | Dakota Street to Spruce Street |
| • 18 th Street | LeCompton Road to Thornton Street |
| • 19 th Street Terrace | 20 th Street Trafficway to Thornton Street |
| • 20 th Street | Metropolitan Avenue to Spruce Street |
| • 20 th Street Trafficway | Spruce Street to Eisenhower Road |
| • Broadway | Metropolitan Street to Thornton Street |
| • Hughes Road | Eisenhower Road to Limit Street |
| • Lawrence Avenue | Spruce Street to Cherokee Street |
| • Maple Avenue | Thornton Street to Limit Street |
| • Santa Fe Trail | Metropolitan Avenue to Hancock Avenue |
| • Shrine Park Road | Eisenhower Road to Limit Street |
| • Washington Street | Spruce Street to Ohio Street |
| • Wilson Avenue | Marion to Home Place |

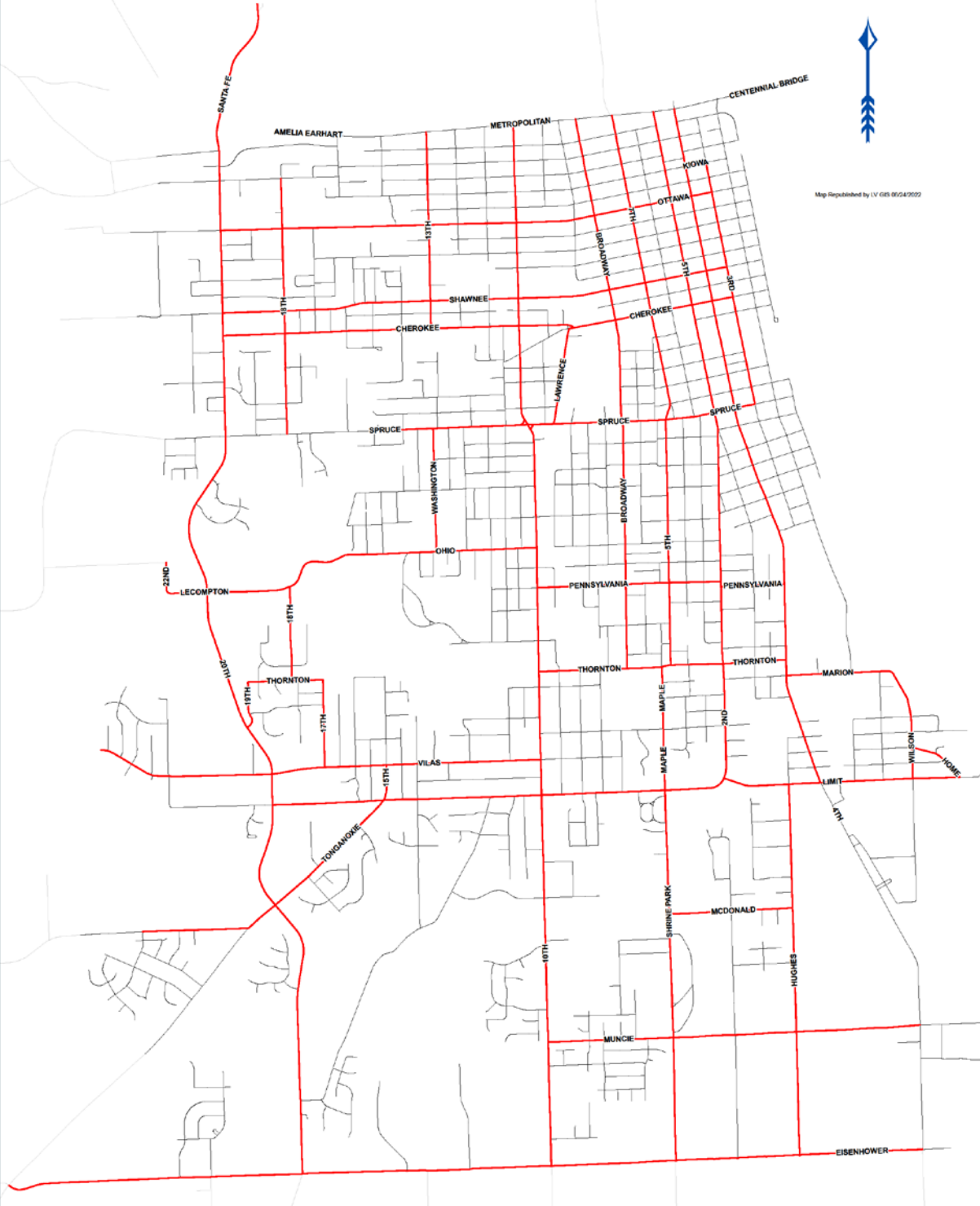
APPROVED NOVEMBER 24, 2020 – ORDINANCE NO. 8155

City of Leavenworth Emergency Snow Routes 2022-2023

Emergency Snow Routes



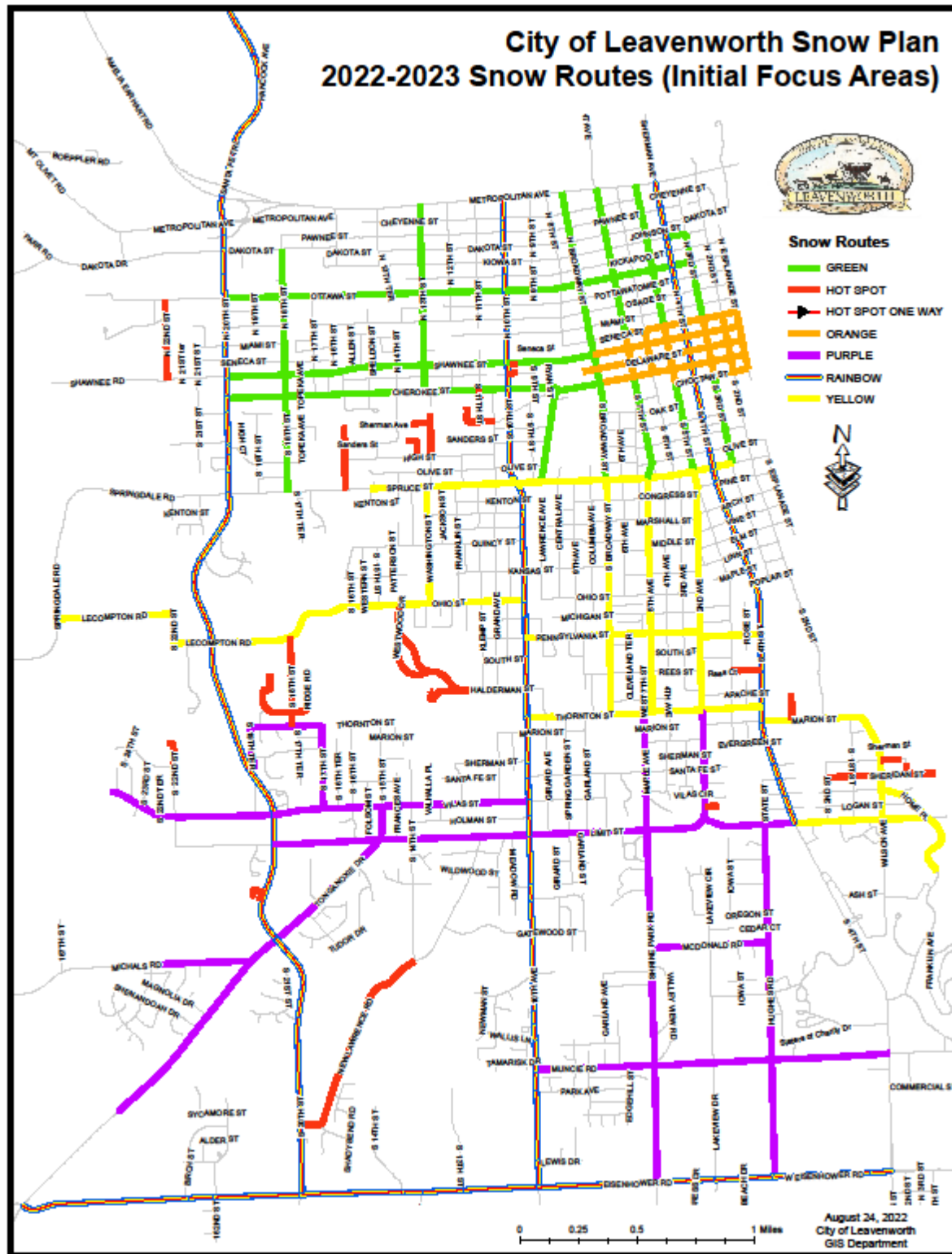
Map Republished by IV GIS 05/24/2022



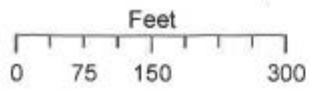
City of Leavenworth Snow Plan 2022-2023 Snow Routes (Initial Focus Areas)



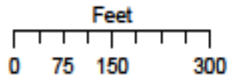
- Snow Routes**
- GREEN
 - HOT SPOT
 - ▶ HOT SPOT ONE WAY
 - ORANGE
 - PURPLE
 - RAINBOW
 - YELLOW



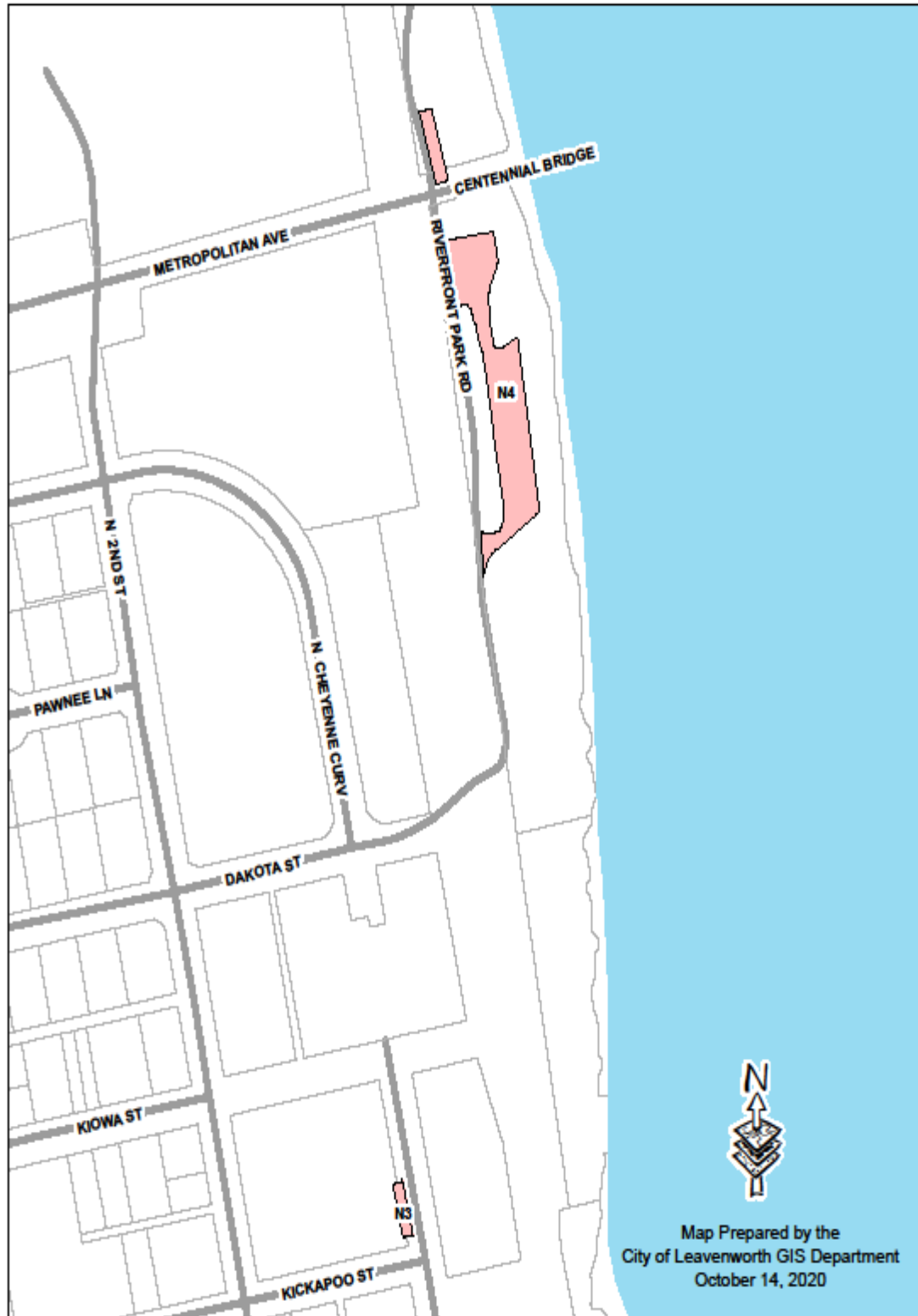
Downtown Municipal Parking Lots WEST of 4th Street



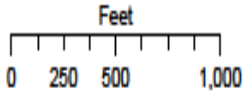
Map Prepared by the
City of Leavenworth GIS Department
October 12, 2017



Municipal Parking Lots - Riverfront N Esplanade & Kickapoo



Map Prepared by the
City of Leavenworth GIS Department
October 14, 2020

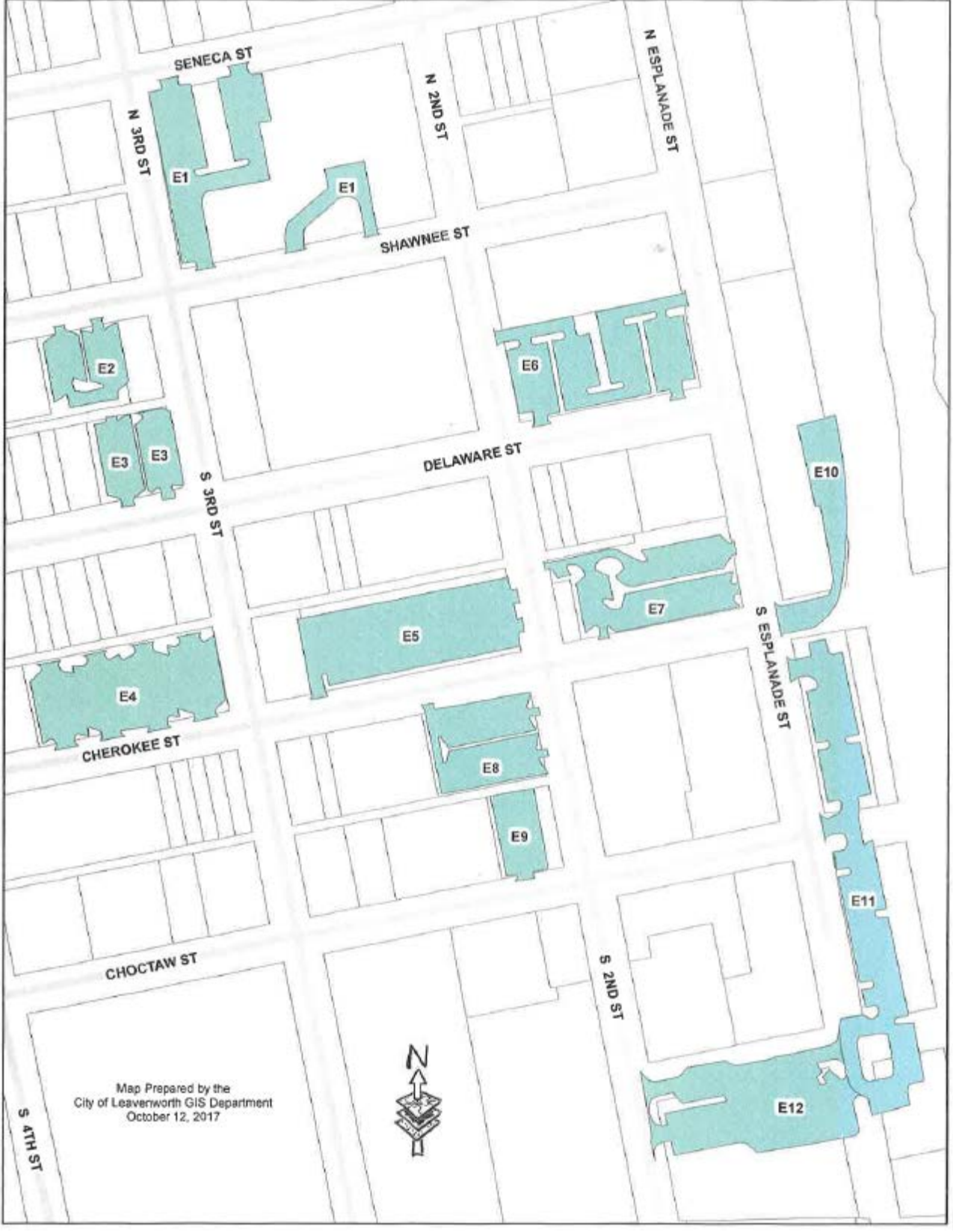
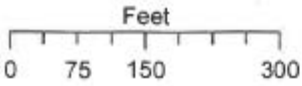


Municipal Parking Lots - Springfield Wollman Park

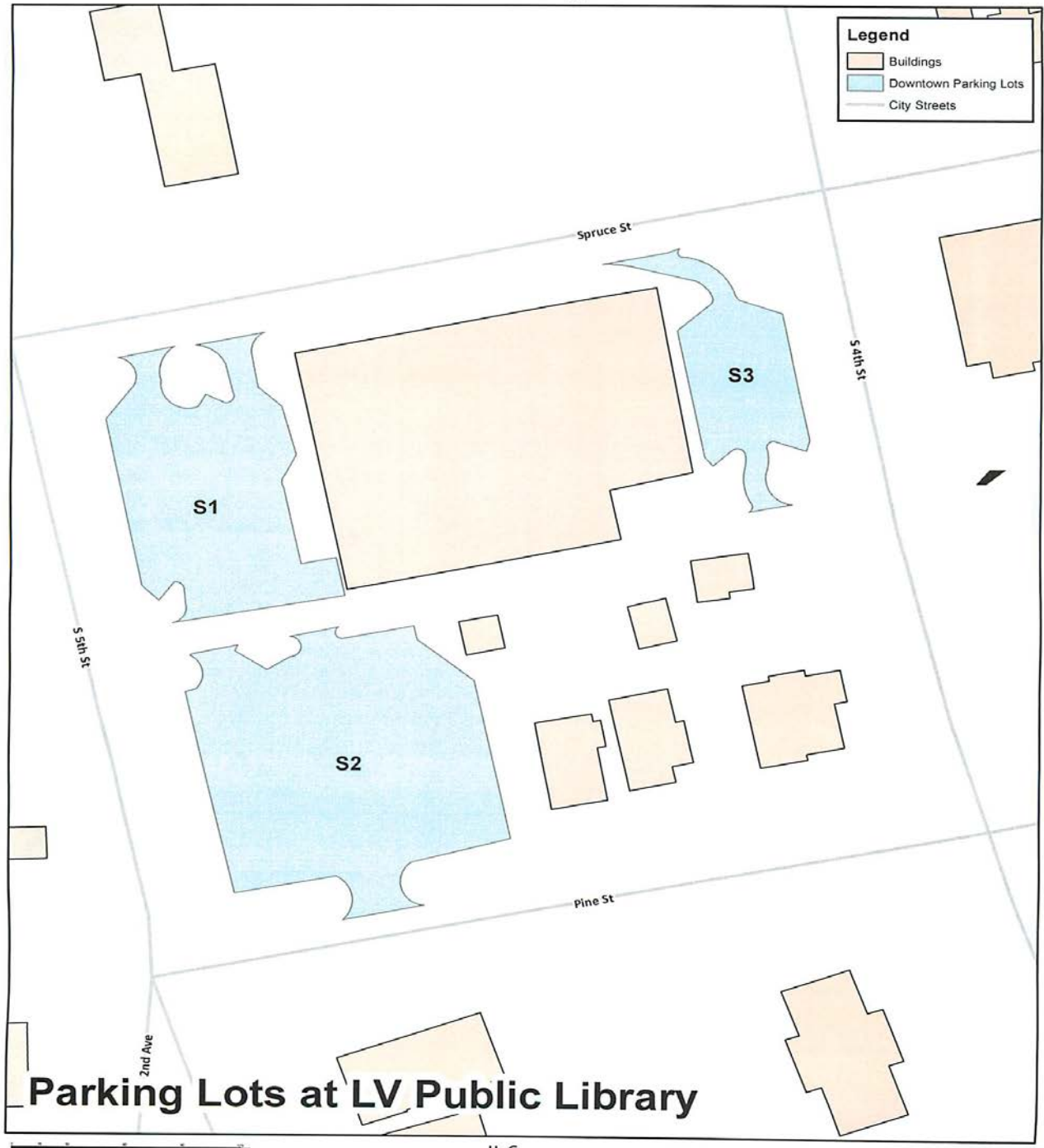


Map Prepared by the
City of Leavenworth GIS Department
October 14, 2020

Downtown Municipal Parking Lots EAST of 4th Street



City of Leavenworth Snow Plan
Downtown Parking Lots



Parking Lots at LV Public Library

PARKING LOT TABLE

PARKING LOT NUMBER	LOCATION
E1	Planters II - East Parking Lot & Entrance Drive
E10	Riverfront Community Center - East Parking Lot
E11	Riverfront Community Center - South Parking Lot
E12	Abernathy Lot
E2	300 Block of Shawnee Street - South Side
E3	3rd Street & Delaware Street - Northwest Corner
E4	300 Block of Cherokee Street - North Side
E5	200 Block of Cherokee Street - North Side
E6	100 Block of Delaware Street - North Side
E7	100 Block of Cherokee Street - North Side
E8	2nd Street & Cherokee Street - Southwest Corner
E9	High Noon Saloon - East Parking Lot
N1	Sportsfield - Parking Lots
N2	Wollman Park - Parking Lots
N3	N Esplanade St & Kickapoo St - Northwest Corner
N4	Riverfront Park - North Parking Lots
S1	Public Library - South Parking Lot
S2	Public Library - South Parking Lot
S3	Public Library - East Parking Lot
W1	City Hall - East Parking Lot
W2	5th Street & Seneca Street - Southwest Corner
W3	Immaculata High School - North Side
W4	500 Block Shawnee Street - South Side
W5	400 Block Cherokee Street - North Side
W6	6th Street & Cherokee Street - Northeast Corner
W7	400 Block Cherokee Street - South Side
W8	5th Street & Choctaw Street - Northeast Corner
W9	Haymarket Square

SCHOOL ZONES

Listed below are the locations of all school zones, which will be plowed and treated in conjunction with the school district's maintenance and supervisory personnel:

GRID 1

David Brewer School
401 N. 17th Street

- N 18th, Osage to Ottawa
- Ottawa, N 18th to N 17th
- N 17th, Ottawa to Osage

GRID 2

Lawson School
820 N. 5th Street

- N 4th, Johnson to Pawnee
- Pawnee, N 4th to N 5th
- N 5th, Johnson to Pawnee
- Johnson, N 5th to N 4th

St. Paul Lutheran School
320 N. 7th Street

- N 7th, Miami to Osage
- Osage, N 7th to N 6th

GRID 6

Xavier Catholic Pre-School
1409 2nd Avenue

- 2nd Ave, Ohio to Prospect

GRID 7

Leavenworth High School
2012 10th Avenue

- 10th, Marion to Halderman
- Halderman, 10th to Grand
- Grand, Halderman to Marion
- Marion, Grand to 10th

Henry Leavenworth School
1925 Vilas

- 20th, Vilas to Limit
- Vilas, 20th to 22nd
- 22nd, Vilas to Limit
- Limit, 22nd to 20th

GRID 8

Anthony School
570 Evergreen

- 2nd, Evergreen to Thornton
- Thornton, 2nd Ave to 4th Ave
- 4th Ave, Thornton to Evergreen
- Evergreen, 4th Ave to 2nd Ave

GRID 9

Warren Middle School
3501 New Lawrence Road

- 10th, Gatewood to Limit
- Limit, 10th to New Lawrence
- New Lawrence, Limit to Gatewood
- Gatewood, New Lawrence to 10th

GRID 10

Xavier Muncie Campus
541 Muncie Road

- Muncie, Lakeview Dr to Hughes
- Hughes, Muncie to Eisenhower
- Eisenhower, Hughes to Lakeview Dr
- Lakeview Dr, Eisenhower to Muncie

WATER POLLUTION CONTROL DIVISION

- A. The Water Pollution Control Division will provide manpower and equipment as required in the support for snow and ice removal. Manpower will be qualified and trained to operate the equipment being used. The Superintendent of City Operations will coordinate required training with the Superintendent of Water Pollution Control.

- B. To the maximum extent possible, there will be no change in operation of the Water Pollution Control facility during storms.

- C. Plowing and de-icing of the interior Water Pollution Control facility (WPC) will be conducted by City personnel.

PARKS MAINTENANCE DIVISION

- A. The Parks Maintenance Division will provide manpower and equipment as required in support of the City Operations Division for snow and ice removal. Detailed manpower will be qualified and trained to operate the equipment being used. The Superintendent of the City Operations will coordinate with the Superintendent of Parks Maintenance.
- B. The primary focus for snow and ice operations for the Parks Maintenance Division will be:
- ❖ Clear and de-ice City Hall sidewalks.
 - ❖ Clear and de-ice Riverfront Community Center Sidewalks.
 - ❖ Clear and de-ice Leavenworth Public Library Sidewalks.
 - ❖ Clear and de-ice all sidewalks adjacent to all City parking lots.
 - ❖ Clear and de-ice Municipal Service Center Sidewalks.
 - ❖ Clean and de-ice selected Parks and Facilities as required.

SOLID WASTE/REFUSE AND MAINTENANCE OPERATIONS

A. Solid Waste/Refuse Pick-Up

- 1) To the maximum extent possible, refuse pick-up will be conducted at its normal schedule. Four-wheel drive vehicle augmentation will be provided to the Solid Waste Foreman to assist in the areas of poor or limited access.
- 2) In the event that the severity of the storm delays the normal schedule, the Solid Waste/Refuse Section will work overtime and be augmented with personnel in order to get back into the normal schedule as quickly as possible.

B. Maintenance Section: Maintenance personnel will be assigned to shift operations as directed by this plan.

C. Brush Disposal Site and Recycling: Will open only after the storm has ceased, clearing areas for brush will be accomplished as required by City personnel.

CONTRACTORS SUPPORT
TO SNOW AND ICE CONTROL

- A. The Superintendent of City Operations will solicit price quotes and availability of equipment from local contractors before the start of snow and ice season each year. A City and Contractor meeting will occur before each snow season. At this meeting, areas will be assigned and plowing coordination standards established.

- B. Contractor Support Areas:
 - 1. Residential streets, by grid
 - 2. Downtown Central Business District
 - 3. Other, as defined by the Director of Public Works

- C. Contractor Quality Control: The Director of Public Works will appoint staff personnel to serve as contractor quality control inspectors. The duties of these individuals will be to function as SNICCC contractor coordinator and ensure the quality control of snow removal operations by the contractor. Staff assigned to these duties will report directly to the Superintendent of City Operations.

- D. Communications with Contractors: In the event the contractor cannot furnish a viable communication link with the SNICCC and contractor representative, the SNICCC will provide receipted handheld radios for the contractors use from City-wide radio resources if available.

CONTRACTOR'S AREAS OF RESPONSIBILITY

CONTRACTOR AREAS

- ❖ Grids 1, 3, 5, 7 and 9
- ❖ Grids 2, 4, 6, 8 and 10

Plowing operations will start as directed by the Director of Public Works. The Director of Public Works will make decision for plowing, based on snow accumulation and the weather forecast.

CONTRACTOR STANDARDS

- ❖ Report when work commences by grid
- ❖ Report when finished with grid(s), plus periodic status
- ❖ Snow will be winged back as close to curb as parked cars allow – 2 passes (up/down).
- ❖ Intersections will be kept clear
- ❖ Be responsive to assigned City Inspector
- ❖ After operations report and invoice will include:
 - Date
 - Start time
 - Completion time
 - Equipment utilized and hours
 - Problems encountered and recommendations for improvement

CITY “QUALITY CONTROL” INSPECTORS

- ❖ Engineer Tech 1
- ❖ Engineer Tech 2

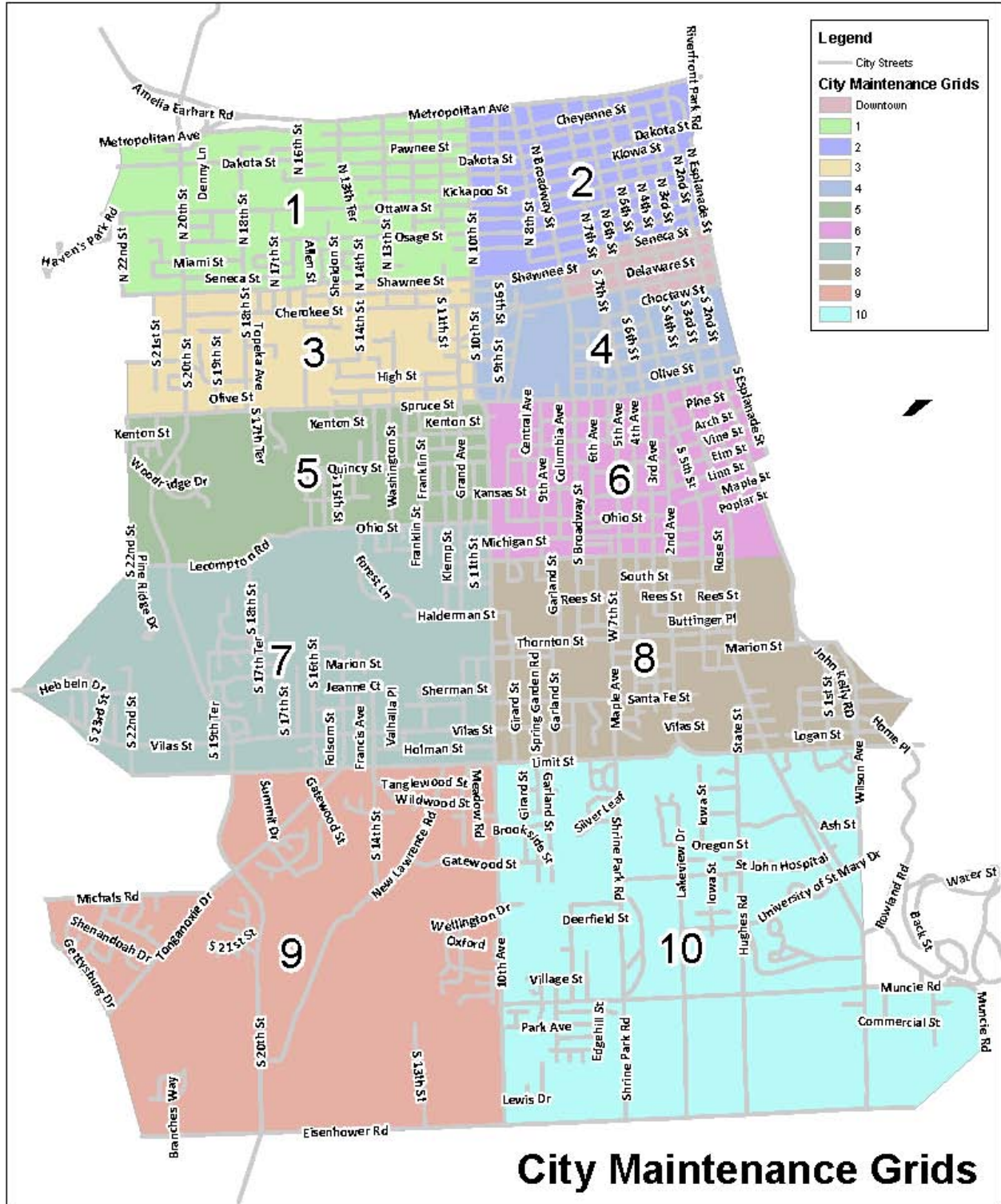
DOWNTOWN CLEAN-UP

Operations will commence the evening after storm at 9:00 p.m. unless directed differently by the Director of Public Works.

REQUIRED DOCUMENTATION:

- ❖ Current certificate of insurance (listing City of Leavenworth as additional insured)
- ❖ Points of contact
- ❖ Equipment availability with and without operator including costs

City of Leavenworth Snow Plan Maintenance Grids



September 30, 2009

**MATRIX OF SNOW/DE-ICING
TREATMENT PROCEDURES**

		RECOMMENDED TREATMENT (STORM)			
°F	PREC.	ACTIVITY	BEGINNING	DURING	AFTER
0-20	SNOW (DRY)	PLOW	IMMEDIATELY	CONTINUOUSLY	WING BACK TO SHOULDERS CLEAN-UP
		SALT/BRINE	AFTER PLOWING EMERGENCY ROUTES & OTHER KEY AREAS	AS NECESSARY AFTER PLOWING	ICY SPOTS ONLY
20-30	SNOW DRY/ WET	PLOW	IMMEDIATELY	CONTINUOUSLY	WING BACK TO SHOULDERS CLEAN-UP
		SALT	AFTER PLOWING EMERGENCY ROUTES & OTHER KEY AREAS	AS NECESSARY AFTER PLOWING	ICY SPOTS ONLY
0-30	ICE	PLOW	NO	NO	NO
		SALT *	KEY AREAS & EMERGENCY ROUTES	CONTINUOUSLY	ICY SPOTS ONLY
		SALT *	RESIDENTIAL STREETS	ONCE EMERGENCY ROUTES TREATED	ICY SPOTS ONLY

NOTE: *DURING ICE STORMS WHEN TEMPERATURE IS 20° F AND LOWER, ALL SALT WILL BE MIXED WITH SALT BRINE.

WORK MANAGEMENT FORMS AND LOGS

1. This appendix prescribes the Work Management forms and logs, which will ensure the accurate record and utilization of resources (man hours, equipment and material) as well as call in and out problems.
2. Specific forms and their function are as follows:
 - a. Snow/Ice Control Worksheet

This form is the shift operator's primary log of manpower equipment hours and de-icing resources used during a shift. Each operator per shift is responsible for the accurate completion of this form. It will be turned into the Work Management Technician after each shift.
 - b. Dispatch Log

This form will be maintained for each shift (continuation pages will be used as required). The purpose of this form is to accurately log and document all call in requests for assistance from citizens and/or City officials. The shift supervisor will review his/her log sheets and provide a copy to his/her shift relief with unresolved actions and/or requirements. The Dispatcher will be responsible by shift for this log.
 - c. Snow/Ice After Action Report

This form will be used to record and document the total resources expended for each storm. Storms will be numbered by year consecutively. The Superintendent of City Operations is responsible for the execution of this form in conjunction with Work Management.

SNOW/ICE CONTROL OPERATOR WORKSHEET



Snow/Ice Control Operator Worksheet

Date: _____

Starting Mileage <small>(from truck odometer)</small>

Ending Mileage <small>(from truck odometer)</small>

Total Mileage <small>(Ending - Starting)</small>
--

Operator: _____

Truck #: _____

Shift:
(Circle One)

Day

Night

Start Time

End Time

Hours Worked

<u>Spreader Controller</u>	
Dry Distance Material - A _____	miles
Pre-Wet Distance Material - A _____	miles
Total Material - A _____	miles ²
Dry Material-A _____	lbs
Pre-Wetted Material - A _____	lbs
Total Material - A _____	lbs ²
Prewet Liq Materail - A _____	gallons
ALWAYS clear "Current Data" at the end of your shift.	

<u>To Be Calculated by Street Clerk</u>
Lbs/Lane Mile _____ <small>(2/1)</small>
Total Tons Salt/Sand _____ <small>(2 /2,000)</small>
<small>Round to 2 decimal points.</small>

<u>Plowing Miles</u>
Total Plowed Miles <small>(Note odometer when plow is dropped)</small> _____
miles

REMEMBER!

Always complete a pre- and post-inspection sheet for your vehicle for each shift.

Always call in to dispatch when starting and ending a route.

If treating Hot Spots, call dispatch as each spot is treated.

Operator
Signature: _____

Date: _____

DISPATCH LOG

DATE: _____

DISPATCHER: _____

SHIFT: _____

ITEM #	TRUCK #	OPERATOR	TIME	BEGINNING MILEAGE	ENDING MILEAGE	NOTES

DISPATCH SHEET

TITLE	DATE:			TIME:		TO		
	TRUCK #	EQUIPMENT HOURS	REGULAR HOURS	OVERTIME HOURS	TONS OF SALT/SAND	POUNDS PER LANE MILE	TREATING MILEAGE	PLOWING MILEAGE
	SUBTOTAL	0	0	0	0	#DIV/0!	0	0
	DATE:				TIME:	TO		
	SUBTOTAL	0	0	0	0	#DIV/0!	0	0
	DATE:				TIME:	TO		
	SUBTOTAL	0	0	0	0	#DIV/0!	0	0
	TOTAL	0	0	0	0	#DIV/0!	0	0

STATE, COUNTY, LEAVENWORTH AND LANSING'S
AREAS OF RESPONSIBILITY

STATE:

- Metropolitan from Bridge to 73 West
- Spruce Street from 15th Street to West
- 4th Street from Limit South

COUNTY:

- 18th Street/Santa Fe Trail North of Metropolitan

CITY OF LEAVENWORTH:

- All streets within City limits

In addition, the following streets are included:

- Metropolitan from 16th St. to 20th St./16th St. from Metropolitan to Highway 7/73
- 20th Street from Eisenhower Road to Fort Leavenworth rear entrance
- Ottawa Street from 22nd Street to Dead End
- Shawnee from 22nd Street to Dead End
- County Road 12 from 22nd Street to Highway 92
- New Lawrence Road from Limit to 20th Street Trafficway
- County Road 5 from Limit to Michals Road
- Eisenhower from 4th Street to Tonganoxie Road

CITY OF LANSING:

- Eisenhower Road from 4th Street East

MUTUAL ASSISTANCE IN EMERGENCY

- Product/Material
- Parts
- Weather Up-Dates Leavenworth/Post

LEAVENWORTH PUBLIC SCHOOLS

Inclement Weather Procedure

ALL INCLEMENT WEATHER DECISIONS ARE BASED ON CONCERNS FOR STUDENT, PARENT, AND STAFF SAFETY.

IN THE EVENT SCHOOLS ARE CLOSED FOR THE DAY, USD #453 WILL:

- Make the decision to close no later than 6:00 am
- Provide notice to the major television stations in the Kansas City area (FOX 4, KSHB 41, KCTV 5, KMBC 9); conduct the district autodialer, and post the closing on district social media channels of communication.

PARENTS NEED TO:

- Listen to news broadcasts on stormy mornings, or check the district website
- Decide whether or not to send their child(ren) to school. When the decision is made that schools will be open, some parents may choose to keep their child(ren) home because weather conditions may be considered marginal. Such absences will be excused, and work missed may be made up without penalty.

IN THE EVENT A STORM DEVELOPS OR THE WEATHER CHANGES UNEXPECTEDLY DURING THE DAY, USD #453 WILL:

- Remain open; schools will not dismiss early
- If parents feel their child(ren) should come home, they may pick them up from school; such absences will be excused and work missed may be made up without penalty.

FORT LEAVENWORTH

- Will coordinate with Fort Leavenworth to modify our schedule to plow to allow for early release.

PLEASE SAVE THIS INFORMATION FOR FUTURE WEATHER SITUATIONS

**CITY OF LEAVENWORTH
SNOW AND ICE REMOVAL OPERATION PLAN**

INDEX

Accident Procedures	8	Parking Lots East of 4 th Street (Map)	II-6
Storm/Ice Storm Data Report	VIII-4	Parking Lots Public Library (Map).....	II-7
Dispatch Sheet	VIII-3	Parking Lots West of 4 th Street (Map)	II-5
City Personnel.....	6	Parks Division Operations	IV-1
Command & Control Center (SNICCC).....	7	Personnel Notification/Recall	4
Contractor’s Areas of Responsibility.....	VI-2	Pre-Winter Season Preparation	10
Contractor Personnel	6	Post-Operation Procedures.....	11
Contractor Support.....	VI-1	Public Works Recall Rosters	I-1
County Areas of Responsibility.....	IX-1	Residential Zone (Map)	VI-3
De-Icer & Abrasive Application.....	7	Routes & Priorities.....	II-1
Declaration of Traffic Emergency	5	Safety	9
Downtown Snow Removal (Map)	II-4	School Zones.....	II-9
Emergency Snow Route (Map)	II-2	Snow & Ice Control Policy	1
Implementation Procedures	4	Snow & Ice Routes (Maps).....	II-3
Introduction.....	1	Snow Removal Policies & Procedures	7
Lansing Area of Responsibility	IX-1	Snow Route Responsibilities	6
Leavenworth Area of Responsibility	IX-1	Solid Waste Operations.....	V-1
LV Public Schools Weather Procedures .	X-1	State Areas of Responsibility.....	IX-1
Fort Leavenworth Weather Procedures...X-2		Storm Classification.....	3
Manpower & Equipment Assignments.....	9	Ticket/Towing Procedures	7
Matrix of Treatment Procedures	VII-1	WPC Operations	III
Media Interface	8	Weather/Storm Decision.....	4
Operator Work Sheet	VIII-2	Work Management Forms and Logs.....	VIII
Parking Lot Table	II-8		


NOTES

POLICY REPORT PWD NO. 22-48
STUDY SESSION – PAVEMENT MANAGEMENT PLAN

City Project No. 2022-990

October 4, 2022

Prepared By:


Brian Faust, P.E.,
Director of Public Works

Reviewed By:


Paul Kramer,
City Manager

ITEMS:

Representatives from the City's pavement consultant, Alfred Benesch, will be updating the Commission on the following items:

- Update and discussion on the 2023 Pavement Management Plan (PMP).
- Update on the development of the Level of Service (LOS) Prioritization Model that will be used starting in 2024 to determine which streets and what treatments to use moving forward.
- Discussion of the various forms/differences in surface treatments (micro-surfacing, slurry seal, pressure pave, chip/seal, etc.)

COMMISSION GOAL:

4. Roadways and Infrastructure

a. Roadways

i. Create a long-term Pavement Management Plan for all City streets.

BACKGROUND:

A Pavement Management Plan is an asset management process used to allocate resources effectively and to maximize the service life of pavements. The information collected as part of the process is used to identify appropriate maintenance strategies for each street based on pavement condition, expected service life, desired level of service and street classification.

The 2023 streets are in the process of being finalized with bidding tentatively scheduled by the end of February.

PRESENTATIONS:

A presentation on Pavement Management will be done by representatives from Alfred Benesch.

Policy Report
Solid Waste Operations Discussion – Poly-cart Program
October 4, 2022

Prepared by:



Paul Kramer
City Manager

Background:

At the September 6 City Commission Study Session, the Commission provided consensus on a process related to proposed modification to the solid waste collection system. In brief, that process included addressing the following issues in the order in which they are noted:

- 1) Collection approach: Hybrid poly-carts and new regulations.
- 2) Bulky item pickup: Frequency and new regulations
- 3) Enforcement approach: Warnings and citations
- 4) Trash bags

This policy report and the Commission and staff discussion will focus in item #1, "Collection approach: Hybrid poly-carts and new regulations."

Issue: Collection approach: Hybrid poly-carts and new regulations.

1. Does the City move forward with a poly-cart program?

Based on Commission feedback, staff recommends City Commission adopt a hybrid poly-cart program where residents will receive a poly-cart unless they 'opt out' of the program. The city will continue to pick up trash bags for residents that opt out.

2. Communication and rollout.

Communication regarding the poly-cart program would be through the various social media platforms, direct mailers and the city's website. Staff recommends the program start in the spring/summer of 2023. The supplier of the carts would be required to notify residents by mail that they would be receiving a poly-cart unless they opt out of the program. Opt out would be:

- By checking the opt out box on the mailer and returning it, or;
- By going to the website and completing the opt out form

3. Poly-cart election periods

With the proposed initial startup of spring/summer of 2023, residents would automatically receive a poly-cart unless they opt out of the program. Those who initially opt out, but later decide they would like a cart could do so on a quarterly or semi-annual basis. The City would

keep extra carts in stock (recommended 1% (100) to 2% (200)), these are typically used to replace damaged carts, to switch out carts for those wanting a larger or smaller size and for new residents. Manufacturing time is roughly 2 months once an order is placed – so the quarterly or semi-annual timeframe allows time for the order to be placed and carts to be manufactured and delivered.

4. Purchase, cost and delivery of poly-carts and truck retro-fits

The number of carts purchased would be on the order of 10,000 unless there is a significant number of residents that opt out of the program. Purchasing 10,000 the costs will be as shown below:

▪ 65 Gallon - \$50/cart (assuming 2500)	=	<i>\$125,000</i>
▪ 95 Gallon - \$55/cart (assuming 7500)	=	<u><i>\$412,500</i></u>
▪ Cost for carts	=	<i>\$537,500</i>

- The 65-gallon size is typical for 2 to 3 people.
- The 95-gallon size is typically used by larger families.
- Staff recommends no decrease in monthly fee for those using the smaller cart.
- Manufacturers can:
 - Deliver carts to the city for staff to distribute
 - Deliver carts to the city for residents to pick up
 - Deliver carts directly to the residents. Staff recommends this option
- Cost for assembly and distribution at \$4.5/cart = *\$45,000 (this includes recording cart serial number to customer address)*
- Truck retrofits are approximately \$12,000/truck x 6 trucks = *\$72,000*

5. Replacement and repair

Manufacturer defects will be addressed by the company supplying the carts. While the warranty will ultimately depend on the selected manufacturer and the terms of the sale agreement, the typical industry standard is 10 years.

For other types of damage – i.e. broken wheels or lids, carts hit by a vehicle, etc. – staff would propose:

- Staff would replace lids and wheels
- Fee will be charged for repairs or replacement due to owner or occupant abuse, misuse, or neglect.

The items above and Commission discussion will inform the public information and Commission approved practices governing a poly-cart program.