National Snow Standards and how they affect slip and fall liability

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Introduction

1. Owner, Snowmen, Inc.
2. Larger snow and ice removal company in Midwest.
3. Service 500+ commercial grade “A” properties within 75 mile area in Kansas City.
4. Service around 4,000,000 sq. ft of sidewalk walking area in any given year.
5. In snow operations for 15 years, mainly snow only focus.
6. Work with attorneys in slip and fall cases – plaintiff and defense
Snow Standards – What's the bid deal?

1. Snow standards were drafted around 2013-2014
2. Attorneys are finding them and using them in lawsuits regarding snow contractors and who is liable in slip and fall’s.
3. They are becoming more and more widely recognized across the US and Canada, and are becoming an important part of the legal landscape in regards to snow contractors, building owners, and the snow and ice removal services that they are providing.
What are the standards?

1. There are three main “standards” or “best practices” as they are also called
   4. #3 – SIMA Best Practices
   5. BOMA has recommendations for snow and ice removal practices as well as many of the major insurance companies. It is a good idea to ask your insurance company that insures you if they have any recommendations for snow removal.
Typical Accusations in a slip and fall lawsuit

1. Negligence – Failure to provide proper snow and ice removal services – This is where the snow standards can either help you or hurt you.

2. Failure to warn – Didn’t post signs, cones or any type of warning system to prevent the accident.

3. Who is responsible for these items? Is it you, your customer or the building owner?
ANSI/ASCA A1000-2014 Standard

1. Developed by the Accredited Snow Contractors Association, adopted by ANSI – “American National Standards Institute”
2. Very comprehensive, lots of components to the standards.
3. If you are a member of the ASCA you need to know what is in these standards and if your company is complying with these standards.
AN ADOPTED INDUSTRY STANDARD: HOW LEAD MANAGEMENT

The central component of the ASCA is the publication and maintenance of the System-Requirement for Snow and Ice Management (SRRS-NSI/ASC31), commonly known as the Industry Standards.

The Industry Standards for the snow and ice management industry were created to provide companies with procedures to reduce risk. These standards give you the proper documentation and procedures in defense of a potential action (for example, a lawsuit).

What is included in the Industry Standards?

The Industry Standards for the snow and ice management industry cover many topics, including:

1. Scope and Purpose
2. Education and Training
3. Pre-season site risk assessments
4. In-season documentation
5. Post-season standards
6. Environmental standards
7. Weather service standards

Where to purchase the Industry Standards

These Standards are available to ASCA member companies at no charge. If you are interested in learning more about ASCA membership, click here.

Non-members can find a current listing of the Standard with purchase information in our online bookstore.

How the Industry Standards are developed

CENTRAL SALT

CASCADE

ARCTIC

CASE

MEMBERSHIP

leadership in the Accredited Snow Contractors Association’s central office, assisting industries in areas of education, publications, initiation. By ensuring standards, manuals, etc. are accurate and up-to-date, we have set ourselves apart from other organizations. The ASCA does provide the information we need to make our association successful. Together, we can change the industry.
System Requirements for
Snow and Ice Management Services
American National Standard
System Requirements for
Snow and Ice Management Services

Sponsor
Accredited Snow Contractors Association
4020 Kinross Lakes Parkway, Suite 201
Richfield, Ohio 44286

Approved January 27, 2014
American National Standards Institute, Inc.
Approval of an American National Standard requires review by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgement of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made towards their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

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Foreword  (This foreword is not part of American National Standard ANSI/ASCA A1000:2014)

The project initiation of this standard was set in motion after a Ballot of the ANSI Executive Standards Council (ExSC) accredited the ASCA as an American National Standards Developer on September 20, 2013. Following this action was registration of the PINS whereby public comment and notice were solicited. When the public notice expired on November 17, 2013 without comment, the project was officially launched by ASCA as sponsor. ASCA balloted a balanced consensus group and solicited public comment per ANSI procedures. This standard was approved by ANSI on January 27, 2014.

This standard, ANSI/ASCA A1000-2014: System Requirements for Snow and Ice Management Services, is intended to be implemented and applied (on a voluntary basis) in conjunction with ISO 9001 with respect to the processes of providing snow and ice management services.

The Accredited Snow Contractors Association, ASCA, is a trade association with the purpose of advancing the snow and ice management industry. Its services for the industry include:

1) Providing educational programs and publications in all aspects of snow and ice management, finance, business management, marketing and other specialized areas of professional interest.

2) Conducting meetings and other programs designed to promote the exchange of ideas among members and to facilitate the conduct of their business.

3) Collecting and disseminating information pertaining to the snow and ice management industry, including statistical data and other statistical research.

4) Developing and maintaining professional accreditation programs to encourage high standards for snow and ice management professionals.

5) Advocating the interest of the snow and ice management industry to local, state/provincial, federal and international governmental bodies.

6) Advocating the interests of the snow and ice management industry to insurance companies and allied associations.

The intent of this standard is to provide snow and ice management companies with a set of procedures that will result in documented completion of operations and safer conditions for pedestrians, drivers and property owners.

The information and materials contained in this publication have been developed from sources believed to be reliable. However, the Accredited Snow Contractors Association (ASCA) or Individual committee members accept no legal responsibility for the correctness or completeness of this material or its application to specific factual situations. By publication of this standard, the ASCA does not ensure that adherence to these recommendations will protect the safety or health of any persons, or preserve property.
At the time the ANSI/ASCA A1000-2014 standard was developed, the ASCA Industry Standards Committee consisted of the following members:

- **Kevin Gilbride**, Committee Chairman and Executive Director of the ASCA
- **John Allin**, Committee member and ASCA member
- **James Anderson**, Committee member and ASCA member
- **Rick Bell**, Committee member and ASCA member
- **James Anderson**, Committee member and ASCA member
- **Michael Jones**, Committee member and ASCA member
- **Nick Mosotti**, Committee member and ASCA member
- **Matthew Peterson**, Committee member and ASCA member
- **Mark Strayer**, Committee member and ASCA member
- **Paul Wolfert**, Committee member and ASCA member
American National Standard
System Requirements for Snow and Ice Management Services

1. Preface

Of the Accredited Snow Contractors Association's (ASCA) various functions, there is perhaps none more important than establishing industry standards. By defining the proper and professional way to operate a professional snow and ice management business and then communicating those practices to the general public, we strive to remove any misconceptions between the general public and the snow and ice management industry. We also make clear to the general public those practices and procedures that define professional snow and ice management companies.

The standards established by ASCA's Industry Standards Committee define the procedures that professional snow and ice management companies shall implement in their businesses for the betterment of society and, more specifically, their clients.

Disclaimer of liability

The ASCA does not assume any legal liability or responsibility for the accuracy, completeness or usefulness of any of the information contained herein.
2. Scope, purpose and application

1. Scope

This standard sets forth the provisions for snow and ice management companies to operate their businesses, in a more efficient, organized and safer work process, that results in a safer property condition for vehicular and pedestrian traffic.

2. Purpose

The purpose of this standard is to establish provisions and business practices that will enable snow and ice management companies, their employees and service providers to provide a snow and ice management service that the industry recognizes as having quality workmanship and is consistent with business management practices that protect the general population, their clients, and their employees.

3. Application

This standard is intended to apply primarily to snow and ice management services performed on commercial, industrial, and certain residential properties.
3. Definitions

1. Anti-icing. The process of applying an appropriate granular or liquid deicing product prior to the onset of a snow or ice event to make a reasonable effort to prevent the bonding of snow/ice to pavement or concrete surfaces.

2. ASCA. The Accredited Snow Contractors Association (ASCA) is a national trade association with the purpose of advancing the professional snow and ice management industry and promoting its role in performing high-risk services to society.

3. ANSI. The American National Standards Institute (ANSI) is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States.

4. Dedicated crew. A group of individuals whose only responsibility during a snow event is to provide agreed upon services to a particular property, an area on a property, or series of properties.

5. Deicing. Reactive treatment of snow, ice or frost covered hard surfaces with ice-control products to melt existing snow, ice or frost.

6. Main manager. For purposes of this standard, the main manager is the principle contact(s) at a property for a snow and ice management company.

7. Mechanical removal. The process of taking snow from its natural location and moving it to another location using an implement.

8. Pretreating. The process of applying an appropriate granular or liquid deicing product prior to the onset of a snow or ice event to make a reasonable effort to prevent the bonding of snow/ice to pavement or concrete surfaces.

9. Proactive services. That act of preparing and/or controlling a snow or ice situation through pretreating or anti icing in advance of a snow or ice event.

10. Residential properties. For purposes of this standard, residential properties are multifamily, apartment complexes, townhome developments, condominium developments, and home owners associations where they contract as a group for snow and ice management services.

11. Self-performing. A snow and ice management company that they or their employees perform services on a site they are contracted to maintain.

12. Service provider. One who takes a portion of a contract from the principle contractor or from another service provider.
14. **Shall.** Verbal form used to indicate requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted, unless accepted by all involved parties.

15. **Should.** Verbal form used to indicate that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required.

16. **Signage.** Safety signs placed on properties by professional snow and ice management companies that warn the general public of potential slippery conditions (i.e., signs often read "Caution: Common areas, parking lots, and sidewalks may be icy or slippery" or similar language).

17. **Snow and Ice event.** A weather event whereby snow falls to the ground whether or not accumulation results. An "event" is generally defined in terms of "time." A break in the snowfall of a determinate amount of time will end one event and start another. That time period is generally defined by the specific contract terms. Acceptable times for this "break in the action" are generally 4 hours without any snowfall; however, some contracts will lengthen or shorten that timeframe.

18. **Snow disposal.** Process of relocating and/or removing snow from a property. This is generally accomplished by hauling the snow off of a property, by melting snow and discharging it into the storm sewer system or relocating snow piles to suitable areas located within the property being serviced.

19. **Stake.** A piece of bamboo, fiberglass, plastic, wood, or other appropriate material pointed at one end for driving into the ground as a marker to protect and outline a property. These stakes should stand visible once snow has covered the ground under normal conditions.

20. **Staking.** To mark a location with a stake by driving into the ground. Prior to the start of the winter season, professional snow and ice management companies "stake" a property by inserting them into the ground. These "stakes" provide those plowing snow to identify where pavement ends, speed bumps and other permanent obstacles which are hazardous to plows once snow has covered the ground.

21. **Suitable areas.** Having the qualities that are right, needed, or appropriate and approved by the property owner or manager for snow pile placement.

22. **Trigger depth.** The depth of snow or ice that initiates service on a given property. Service should begin within a reasonable time frame, once the snow or ice accumulation reaches the agreed upon depth. Measurement location should be agreed upon in the contract, as should the person or service responsible for measurement.
3.23 Zero tolerance. A common term that is used in the snow and ice management industry that is not a realistic or reasonable property condition (also referred to as a "Slip-Free Environment" or "Slip-Free Condition"). It is impossible to achieve bare and wet pavement at all times under all conditions. True "zero tolerance" is an unrealistic expectation, as is a snow free environment. Those tasked with snow and ice management on any given site with a zero-tolerance parameter should strive to achieve "bare and wet conditions on pavement and sidewalk surfaces. There is no set "trigger depth" for starting services when zero tolerance is specified and it is normally expected that service providers will start servicing with a pretreatment, and continue service as the snowfall begins, and throughout the snow event.
4. Fundamentals of snow and ice management

Below are some general guidelines for plowing snow on commercial and residential sites. While these guidelines may seem logical and “common sense” to a snow and ice management professional, the guidelines are established and stated within this document to formalize the overall standards process.

1. Preseason procedures

1. Contract verification

Do not begin plowing operations without having fully executed (signed) agreements with the customer and service provider. Amendments to contracts shall be made in writing.

2. Preseason inspection

Inspect site for potential dangers from exposed manholes, parking lot imperfections including heaving in concrete and obstructions which can create unsafe collisions with the plow.

3. Preseason site preparation

1. Property staking

Stake the property to identify curbs, islands, fire-hydrants, etc.

2. Identification of hazardous conditions

Signage describing hazardous conditions shall be placed on properties serviced by the snow and ice management company and remain visible as defined in the contract between the property management company and snow and ice management company (i.e., Suggested language: “Caution: Common areas, parking lots, and sidewalks may be icy or slippery due to winter weather”).

4.2 Snow and ice management operations

4.2.1 Safety preparedness

Carry appropriate safety equipment at all times (i.e., snatch strap or chain, flares or reflective triangle markers, extra gloves/shoes/clothes/jackets/first aid kit, oil-absorbent wipes, etc.).
2. Snow-plowing basics

1. Safety considerations during operations
   a) Always adhere to local vehicular operational laws and ordinances;
   b) Adhere to safe plowing speeds to maintain control of the vehicle’s operation;
   c) Avoid pedestrians and give them the “right of way” at all times;
   d) Do not pile snow in a manner that impedes view down any street.

2. Plowing practices
   a) Endeavor to always be aware of surroundings;
   b) Endeavor not to hit obstructions (light poles, curbs, parking bumpers, etc.);
   c) In many cases, pushing snow across streets is against local laws. It is advised to avoid this when possible;
   d) When plowing past a vehicle(s), endeavor to angle the plow blade away from the vehicle(s);
   e) When clearing snow away from curbs where sidewalks abut said curbs, the snowplow blade should angle away from the curbs;
   f) When clearing sidewalks, if possible, push snow onto grass areas and not into paved areas, unless using a secondary support truck to clear snow pushed from the sidewalk into the designated area immediately;
   g) Do not leave a ridge of snow where the sidewalk meets the parking area/aisle;
   h) Endeavor not to plow snow into loading docks, only out from the dock area itself;
   i) When plowing onto grass areas, raise the plow slightly to avoid potential grass damage;
   j) Know that parking decks require special attention depending upon deck coating material and weight restrictions.
3. Placement of snow

Proper placement of snow piles affects safety. The following procedures should be adhered to:

a) If snow can be removed from a lot or hard surface and appropriate room exists, always push the snow as far back as possible beyond the curb or lot edge to make room for additional snow;

b) If snow cannot be removed from a lot or hard surface, always place snow piles on a predetermined spot approved by the client and marked on the snow contractor’s preseason site report. (See clause 5.)

c) Do not pile snow in a handicap parking space;

d) Do not bury or plow snow onto a fire hydrant, post indicator valve, or fire hookup along the building wall;

e) Avoid placement of snow piles where thaw/melt off can run across the parking lot surface. Try to place piles near drain grates to avoid icy situations during thaw-and-refreeze periods;

f) Do not push snow against a building;

g) Do not block building doorways or emergency exits;

h) Do not block pedestrian walks or paths with snow piles;

i) Do not push snow onto motor vehicles;

j) Do not plow snow in front of or bury trash containers. Sidewalk labor must shovel inside trash container enclosure for access to the doors. If the container is not in an enclosure, create a clear path to the access doors or panels.
5. Education and training

Education is a key aspect of running a snow and ice management company. Education from the top snow manager down to the shoveling crews needs to be provided and documented. Education comes in many forms from many resources. All education needs to be documented and on file.

1. Company-provided employee training

It is standard in the industry to provide employee training. This training includes all employees who function in the snow and ice company's snow operations. The level and depth of training is contingent upon the role played in the organization and the equipment operated.

Training shall include:

a) Proper dress and personal safety precautions;

b) Proper and safe operation of equipment;

c) Standard operating procedures specific to performing individual jobs during an event;

d) Review of state laws pertaining to operating and transporting equipment and snow removal in general;

e) Proper and safe processes and procedures to follow while performing the job;

f) Proper staking of properties;

g) Proper reporting procedures for the snow contractor's company;

h) Company's safety plan as it pertains to safe operations in the event of an incident;

i) Proper emergency response;

j) Basic remote equipment repair during an event.

This education shall be documented and verified in writing by the employee. This documentation shall be kept on file through the statute of limitations.
2. Service provider training

It is standard to provide service providers with training. In the event the snow contractor has a service provider that has multiple operators, it is standard to train the service provider’s main manager assigned to the account. It is the service provider’s responsibility to train and document the training of its employees. Training shall include:

a) Proper dress and personal safety precautions;
b) Proper and safe operation of equipment;
c) Proper and safe processes and procedures to follow while performing the jobs;
d) Standard operating procedures while performing individual jobs during an event;
e) Review of state laws pertaining to operating and transporting equipment and snow removal in general;
f) A review of client expectations for each property;
g) Proper reporting procedures for the snow contractor’s company;
h) Proper emergency response;
i) Basic remote equipment repair during an event;
j) Detailed training on documentation especially as it pertains to verification of services rendered.

This education shall be documented and signed off on by the service provider and kept on file through the statute of limitations.
6. Preseason site inspection report

A preseason site inspection report is a detailed explanation of a property and how the property is to be serviced by the snow and ice management company. The purpose of the preseason site inspection is to document the physical conditions on the property, including existing property damage, discovery of any potential risk areas, the contracted services and approved snow pile placement areas.

A preseason inspection shall be performed for every account each year, and a site map developed, to be reviewed with the personnel responsible for maintaining the property. The inspection report shall be kept on file until the statute of limitations expires.

Each preseason inspection report shall include:

- a) A detailed drawing or picture of the property (including reasonable visual evidence of current damage);
- b) Services to be performed;
- c) Potential risk areas;
- d) Placement of snow piles;
- e) Snow disposal procedures;
- f) Operating hours.

1. Detailed drawing or picture of property

An overhead photograph or a blueprint drawing of the property serves as a preseason inspection document. This detailed image serves as a record of what the property manager expects to occur on the property when the snow and ice management company or the service provider performs winter snow removal services.

Current property damage and obstructions - including potholes, curbs, fences, speed bumps and all other existing damage shall be noted on these documents and the client and snow and ice management company representative should sign the documents, and deliver them to the client, preferably electronically, to acknowledge current property damage and conditions.

2. Services to be performed

The snow and ice management company shall document the services it has been contracted to perform in the preseason inspection report.
3. Potential risk areas

In the detail of the property, potential hazards should be documented. Hazards are objects or areas that can create problems while an account is serviced or after service is complete. Potential hazards that need to be documented include but are not limited to:

a) Low areas in the pavement that are susceptible to ice formation during a storm and in refreezing occurrences;

b) Manhole covers that could create an issue to those performing services;

c) Speed bumps;

d) High-traffic areas;

e) Existing property damage (especially curbs, potholes, etc.);

f) Drainage areas.

4. Placement of snow piles

A critical component of the snow and ice management company's preseason inspection report is documentation of placement of snow piles, agreed upon by the snow and ice management company and the property manager. Snow pile locations shall be clearly marked on the property detail photograph or drawing.

Snow piles shall be placed in areas that do not intrude upon normal traffic on properties, do not create unnecessary visual obstruction, and are not in areas that create potential hazards. For example, snow piles should never be placed in an area where unnecessary refreezing could occur. Snow should always be placed away from buildings; not on small islands, in or around handicap spaces, or around light poles.

5. Snow-disposal procedures

Snow disposal is a critical service that needs to be performed for some properties. Snow-disposal procedures shall be documented. Documenting exactly how and where the snow and ice management company's team is performing snow disposal services is critical. It is also critical that the snow and ice management company document when it is to perform these services. If the snow and ice management company is not to perform snow disposal services during the property's operating hours, this too needs to be documented.
6.6 Operating hours

The snow and ice management company's preseason inspection report shall include the operating hours of the business, or businesses, located on the property. Including this information on the preseason inspection report allows the snow contractor's team to operate according to the contract and to anticipate the activity on the property while performing the contracted services. Knowing the operating hours also allows the snow and ice management company and its crews to make the proper servicing decisions during an event.
7. In-event documentation

Documentation of services performed during a snow event is a critical component of the snow contractor's documentation process. This documentation shall detail:

a) Arrival time of crews;

b) Conditions of property;

c) Services performed;

d) Areas serviced and not serviced;

e) Incidents that may have occurred;

f) Departure time of crews.

1. Arrival and departure

Snow and ice management companies often provide service during hours a property is unoccupied. It is important to document that the snow contractor was there and performed service. The snow and ice management company can document arrival and departure in a variety of ways. A simple written document by the snow and ice management company's crew leaders stating when the crew arrived and departed is acceptable. However, it is preferred to utilize technology that produces time-stamped documentation. This is achieved in a variety of ways. The following programs and systems all provide the necessary data:

a) GPS tracking;

b) Computer software solutions;

c) Time-stamped video;

d) Time-stamped photograph.

Any of these programs and/or systems will confirm that the snow and ice management company provided service.
2. Conditions at property

1. Conditions at arrival

Upon arrival, the following shall be documented:

a) Day and date of the event;

b) Current conditions on the property including:
   1. Snow depth;
   2. Whether it is currently snowing;
   3. Wind conditions (i.e., blowing snow);
   4. Visible conditions of the sky (i.e., Is the sky moonlit? Is it blizzard-like with low visibility?).

2. Changing conditions

Changes to weather conditions (i.e., It starts or stops snowing, sleeting begins, etc.), while servicing a property shall be documented.

3. Services performed

A report detailing the services performed on each property shall be prepared after each event. A services performed report shall include which areas were serviced and in what manner. For example, services: plowing, de-icing, anti-icing and snow disposal; areas serviced: parking lot and sidewalks.

a) Equipment operating on the property and the employee or subcontractor operating that equipment;

b) Crew or crews operating on property;

c) Any client communication on property:
   1. Name and title of person with whom an employee or service provider communicated;
   2. Information communicated to the employee.
4. Areas serviced or not serviced

There are times snow and ice management companies are unable to perform all of the services they have been contracted to perform due to circumstances beyond their control. These circumstances generally are due to the time of day an event occurs or traffic occurrences on a property. Two examples are:

a) An event occurs during normal business hours and the parking lot is filled with vehicles. The snow and ice management company should document if areas filled with vehicles were not serviced due to the vehicles being parked in those areas.

b) After-hours deliveries are being made and the loading docks are blocked. The snow and ice management company should document that its team could not service the area at the time due to the loading docks being inaccessible.

In both of these cases, and all other cases where the snow and ice management company is not able to service areas, the snow and ice management company shall document and communicate this to the client.

5. Incidents occurred

Due to the hazardous nature of this business, incidents can occur. Each company should have a policy for incidents when they occur. That policy needs to be followed in the event of an incident/damage, which should include documenting the incident and notifying the designated individual within the company. Typically, the incidents that occur in this industry are property damage, vehicular accidents, or employee injury. If any of these occurs, or any other unexpected incident occurs, document it immediately and follow company policy.

6. Summary

In-event documentation is a critical component to recordkeeping. It serves as the first step to the snow and ice management company’s billing system, but it is also the most critical component in verifying the times the crew was on the property, services rendered, situations encountered, and end results. In event documentation shall be kept on file until the statute of limitations expires.
8. Post-event standards

1. Post-event monitoring

Post-event monitoring is a critical component of the snow and ice management process. Frequently, post-event occurrences and conditions create issues that can lead to changed or unsafe conditions. Issues that arise and require set procedures in place include, but are not exclusive to, refreezing, blowing snow, clean-up of the area due to melting, drifting, and other occurrences of snow being moved. This makes post-event monitoring a very critical process.

Snow and ice management companies shall define exactly who has responsibility for post-event monitoring in the contract with their customers and with their service providers.

Post-event monitoring includes monitoring the weather -- precipitation and temperature -- as well as visiting each site to inspect the property for any of the above-mentioned conditions.

2. Post-event inspection reporting

Post-event reporting is a quality-control system that allows the snow and ice management company to track the work completed in the field. Each property the snow and ice management company services shall have a post-inspection report for each event the service is provided. It is acceptable for the crew foreman, a crew member, subcontractor, or other member of the snow and ice management company’s staff to complete this report. Additionally, snow and ice management companies or their service providers should revisit properties within 24 to 48 hours for a quality check and potential clean-up and touch-up procedures.

Upon completion of an event, a summary of the property’s condition shall be completed and kept on file. This report includes a quality-of-property report that summarizes the condition of the property at the time, the time the report/inspection occurred, and the person who submitted the report. The submitter of the report must be the same person who conducted the inspection.

A post-event report does not need to be complicated. Instead, it needs to provide a snapshot of the quality of service the snow contractor provided to the client for the event.
9. Environmental standards

Snow and ice management companies use substances that are governed by the EPA in standard operations. If not used properly, these substances can be of harm to the environment. The list of these products includes, but is not exclusive to rock salt, chemical deicers, hydraulic fluid, and engine oil.

1. Storage and application of salt and deicing material

Salt and chemical de-icing materials are products used in snow and ice management services. These products, when used properly, have little environmental impact.

1. Storage

Salt shall be stored away from storm drains. It should be contained, covered and away from parking areas.

2. Training

The snow and ice management company shall have mandatory training for their employees and service providers on the proper usage and storage of products governed by the EPA that are used in snow and ice management. They shall also follow the proper EPA procedures when an issue arises with these products and the environment.

3. Laws and ordinances

The snow and ice management company shall investigate, confirm, and obey any ordinance or law enacted by local, state, or federal government as it pertains to salt and de-icing material storage and application.

9.2 Environmental incidents

There are instances and circumstances in which these products are released accidentally into the environment and potentially into water sources. Snow and ice management companies shall have processes and procedures in place in the event of accidentally dispersing these products into the environment.

The EPA has processes and procedures in place for reporting in these instances. The snow and ice management company shall follow these processes and procedures. They can be found at www.epa.gov.
10. Weather service standards

The snow and ice management company shall have access to a weather service with a certified meteorologist on staff. Weather service reporting shall include a detailed summary of the weather for each day of the season. An hourly summary of the weather for the snow and ice management company's area shall be included in the weather service's report. The summary shall include snowfall totals by the hour and temperature by the hour. Weather reports need to be easily accessible through the appropriate statute of limitations.
ASTM F2966-13 Standard Guide for Snow and Ice Control for Walkway Surfaces

1. Good general guide for snow and ice control procedures.
2. Combines aspects of ASCA guidelines and SIMA Best Practices.
3. It is good practice to either be in compliance with this standard and SIMA best practices, or the ASCA standard.
Designation: F2966 – 13

Standard Guide for Snow and Ice Control for Walkway Surfaces

This standard is issued under the fixed designation F2966; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (´) indicates an editorial change since the last reapproval or reissue.

1. Scope

1.1 This guide covers snow and ice control procedures. It is intended to recommend known methods to bring about reasonably safe walkways where snow and ice may impact the safety of pedestrians.

2. Conformance with this guide will not alleviate all snow and ice hazards; however, conformance represents a reasonable effort to reduce pedestrian risks associated with snow and ice.

3. This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropr- iate safety and health practices and determine the applica- bility of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards:

F1617 Practice for Safe Walking Surfaces

F1646 Terminology Relating to Safety and Traction for Footways

3. Terminology

1. See Terminology F1646 for the following terms: fall, friction, pedestrian, ramp, sidewalk, slip, slip resistant, and walkway.

2. Definitions of Terms Specific to This Standard:

2.1 Anti-icing materials, n—Dry or liquid snow and ice control materials that reduce friction and/or other qualities of the snow and ice surface to prevent slipping, falling, or slipping through or because of traction lost on the pavement, or weaken bonds formed for easier removal. ¹

2.2 De-icing materials, n—Snow and ice melting products applied on top of a layer of snow or ice, or both, that is bonded to the pavement.

2.2.1 Discussion—Can also be applied proactively, during, or after plowing or snow and ice removal. ¹

4. Significance and Use

4.1 This guide outlines key elements of snow and ice control on walkway surfaces.

5. Snow/Ice Control

5.1 Control techniques for exterior walkway surfaces include anti-icing, plowing, snow blowing, shoveling, de-icing, and/or applying sand or other abrasives.

5.2 Reasonable effort should be made to ensure exterior walkway surface safety for pedestrian traffic.

5.3 A combination of preparatory and ongoing snow and ice control methods should be employed, as applicable.

5.4 Snow and ice control procedures should be prioritized based on pedestrian usage. Where feasible, parking lots should be barricaded, plowed, and treated with de-icing materials before permitting use.

5.5 Snow and ice storage accumulations should be located to avoid obstructing drains, downspouts, or walkway drainage features.

5.6 Stair systems, ramps, handrails and side rails should be cleared of snow and ice before permitting their use.

5.7 Walkway surfaces should be monitored and treated for de-icing or sanding.

5.8 Removed snow and ice should be placed/stored in a manner that does not create a slip hazard upon melting or refreezing. For example, plowing snow accumulations to lower elevations of the property or onto grassy areas may prevent potentially hazardous refreezing of melt water.

5.9 Removed snow and ice should not be stored in a manner that creates a safety hazard for pedestrians, such as placement that blocks a path of egress. Fire hydrants and similar fixtures that could be covered by snow and ice should be marked with reflective posts, stakes, or other distinctive markings.

5.10 Special attention should be given to snow and ice clearance and control during reasonably foreseeable peak pedestrian traffic periods, including but not limited to early

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morning hours, shift change, or prior to employee, vendor, visitor, and customer arrivals, including commercial dock or receiving area driveways, steps and ramps.

5.1.11 To scrape and wipe de-icing and anti-icing materials, slush, water and other debris from pedestrian footwear at entrances, suitable walk off mats, recessed grille mats, permanent carpet tiles and similar equipment should be used. (See Practice F1637, subsection 5.4, for additional information.)

2. Planning

1. Plans for snow and ice control should be in writing. Procedures should be prioritized based on volume and type of pedestrian traffic.

2. When utilized, snow and ice control service agreements with contractors should include means, materials, and methods for snow and ice control, as well as diagrams of areas to be serviced. Diagrams may also include locations of where snow storage accumulations should be placed to minimize slip and fall exposures.

3. Parking lots, sidewalks, exterior steps, ramps and other walkway surfaces exposed to snow and ice should be repaired and free of trip hazards, prior to winter. Where feasible, low areas or other interruptions in drainage flow in walkway surfaces should be corrected in a manner that preserves the slip resistant properties of the walkway surface.

4. Painted walkway surfaces should include the proper application of abrasives as recommended by the paint manufacturer.

5. Roof downspouts should direct drainage flow away from walkways or into underground or covered trough drains, drainage systems or landscaped retention areas rather than onto walkway surfaces that could freeze.

6. Vendor guidance regarding anti-icing and de-icing product effectiveness, temperature use, advantages, disadvantages, environmental impact, and cost per unit should be considered.

3. Equipment and Materials

1. Motorized equipment such as plows, snow blowers, etc., should be utilized where manual methods cannot control snow and ice quickly enough or it would be impractical to use manual methods.

2. Manual snow removal equipment, such as shovels, scrapers, brooms, and similar equipment should be utilized for detailed removal of snow and ice.

3. Anti-icing or de-icing equipment should be in good condition and free of leaks.

4. Workers using anti-icing and de-icing solutions should be trained on application requirements and techniques, preferably by the vendor, if proprietary products are used. Special training may be needed, including the amount to apply and the effect of warming temperatures and increased humidity.

5. When snow removal or the use of de-icing materials are not possible, sand and other abrasives can be used to create traction.

6. Snow and Ice Control—High-Traffic Parking Areas

1. Snow and ice accumulations between parked vehicles should be removed, where practical, to reduce patches of ice and the potential for refreezing.

7. Keywords

1. anti-icing; control; de-icing; ice; refreezing; snow
SIMA Best Practices

1. General Guidelines for snow and ice removal contractors.
2. Was also developed to be used for Property Managers and Building Owners to help them choose a qualified snow and ice removal contractor.
BEST PRACTICES CHECKLIST

DOES YOUR SNOW & ICE MANAGEMENT LEADERSHIP COMPLY WITH SIMA'S MINIMUM REQUIREMENTS?

ENVIRONMENTAL HEALTH, SAFETY, LIABILITY & RISK MANAGEMENT:
- Verify insurance liability coverage to include specific snow/ice management.
- Documented site engineering plan to verify areas to properly locate and stack snow to prevent turnover and refreezing areas and line-of-sight issues.
- Documented safety program and policies including incident reporting process, on-going education, training and implementation (i.e. tailgate talks, perimeter inspections, safety equipment and PPE).
- Parking lots and sidewalk clearing processes include ADA compliance guidelines.
- Awareness of deicing/abrasive material impact on fresh water resources related to proper application rates and storage.

ESTIMATING, PLANNING & COST EFFECTIVENESS:
- Documented snow site engineering plan to verify client and site expectations for proper planning of equipment and production capacity (i.e. aerial maps with zone assignments & priority areas designations).
- Utilizes a verifiable estimating system/tool to verify capacity related to size of site (e.g., sq. ft.), production capacity planning based on system guidelines, cycle times, and resource allocation projections.

EXECUTION & RESPONSIVENESS:
- Documented snow site engineering plan to verify proper production capacity has been dedicated related to level of service and to identify priority areas to be serviced first.
- Documented snow response planning process for variability of storm scenarios.
- Minimum required deicing materials in inventory at all times necessary for 2-weeks worth of average storm activity (average 2-5 storms dependent on geographic market) including product variety for variable temperature requirements (NaCl, MgCl₂, CaCl₂).
- Planned reserve equipment & labor.

QUALITY OF SERVICE:
- Documented snow site engineering plan to verify priority areas & zones (e.g., handicap zones, fire exits & hydrants, drains, etc.) and areas for snow to be relocated to ensure proper drainage line of site, etc.
- Utilizes a site inspection process.
- Consistent manager assigned to manage quality expectations.

COMMUNICATION, DOCUMENTATION & VERIFICATION:
- Documented verification process (e.g., site visit/work completion log).
- Technology enabled (e.g., electronic reporting systems).
- Utilizes communication system (e.g., phone tree, electronic notification, centralized call center or contact).
- Documented organizational communication process flow (e.g., Plan-Do-Verify-Act-Reflect).

CERTIFICATION / STANDARDS & EDUCATION:
- Certified Snow Professional (CSP®) on staff.
- Advanced Snow Manager (ASM®) on staff.
- Attends continuing education seminars, webinars, trade shows, etc.

EXPERTISE & PROFESSIONALISM:
- Manager/Foreman assigned to manage site(s) has 5 years or more field experience.
- Staff assigned to perform work on the site(s) has 2 years or more field experience.
- Documented organizational and accountability structure for the company and site(s).
- Company management is an active member of SIMA.
How to set up your company for compliance to the standards

1. Have a “written plan” for snow and ice removal operations.
2. Decide which standards your company is going to be in compliance with and document it.
3. Have a written snow and ice removal contract and make sure that the standards you have chosen are written into the contract – what you are and “are not” providing your customers.
4. If you have to sign a “customers” contract, have a system of e-mails and or written communication that states to them what services you are NOT providing (in regards to the standards that you have chosen to follow).
Written Plan for Snow and Ice Operations

• If you don’t have one of these it is important to write one up!
• Doesn’t have to be super long or fancy
Written plan for snow and ice control

General Snow and Ice Control Service Overview: In order to provide reasonable snow and ice management services for the building owners, property managers, and customers we work with, it is our goal to service the properties as per our contracted services with the building owners, property managers, or customers. We understand that providing snow and ice removal services will not eliminate all snow and ice hazards; however, having a written plan and following the snow and ice industry best practices/guidelines reduces the risk of these hazards.

General Service Flow:

1. Pre-season Preparation – what do you do before the season to get ready
2. Weather Alertness – how do you handle the weather, forecasting, services, etc.
3. Strategy Planning Meeting – when storms are arriving, how do you gather and plan?
4. Preparation for Deployment – once plan is in place, how do you get ready to deploy?
6. Execute – how do you organize your teams or crews once you have gone into action and are plowing, salting, etc.

Snow Removal Objectives:

- Sidewalk Areas – what are your goals – timeline?
• Parking Lot & Driving Areas - what are your goals - timeline?

• Winter events which continue into or arrive during business hours - how do you handle ongoing storm scenarios - multiple rounds of service?

• Service after the end of a snow or ice event - policies or procedures for salt/refresh, quality inspections after the event?

• Service during blizzard conditions - do things change during blizzards, what are expectations.

• Snow Storage - where do you put snow, do you haul or relocate? When?

Responsibilities: Overview of operation, who makes the calls for servicing properties when, who is responsible for your facility? How are crews broken up in chain of command, command tree? Who is in charge of who during a snow or ice event and who is responsible for follow up and making sure that the jobs are completed correctly?

Contacts: Who are the contacts with the customers, crews, management, employees? How is that set up in your organization? Phone tree, text tree, e-mails? GPS?
How does your company comply with the written standards?

1. Write out and state what you are and are not providing to your customers in regard to the standards you have chosen to follow.
2. Place what you are and are not providing in your snow services contract.
3. If you have to sign a customers contract, put together an e-mail stating what services you do or do not provide to your customers.
4. Create a “stamp” to insert custom phrases into a customers contract.
5. Do not agree to be a “monitor” or engage in “monitoring services” in a snow and ice control contract.
Compliance to Industry Standards of Care for Snow and Ice Removal.


Section 5:1.1 – Control techniques for exterior walkway surfaces include anti-icing, plowing, snow blowing, shoveling, de-icing, and/or applying sand or other abrasives:

Answer: _______ utilizes plowing, snow, blowing, shoveling, de-icing and/or applying sand or other abrasives on properties if salt or deicers are not available as per our standard contract. Anti-icing is not accepted as a widespread standard in the _______ area due to the fact that many of our storm systems start as rain and will wash liquid away.

Sections 5:1.2 – Reasonable effort should be made to ensure exterior walkway surface safety for pedestrian traffic.

Answer: _______ utilizes third party weather companies to advise its snow management team of potential upcoming storms and will apply deicers or scrape walkways as needed to ensure a reasonable effort has been made for exterior walkway surface safety.
Section 5:1.3 – A combination of preparatory and ongoing snow and ice control methods should be employed, as applicable.

Answer: recommends pre-treatment of salt and deicers to customers as needed and will continue to service properties as needed throughout a snow or ice event.

Section 5:1.4 – Snow and ice control procedures should be prioritized based on pedestrian usage. Where feasible, parking lots should be barricaded, plowed, and treated with de-icing materials before permitting use.

Answer: makes it a priority to prioritize and start snow and ice control work based on pedestrian usage. It is the responsibility of customers to barricade or block off parking areas if they desire (as per the contract), so that can plow or treat them with de-icing materials before permitting use. It is an industry standard in the area that most customers do not wish to block or barricade off parking lot areas before plowing or salting.

Section 5.1.5 – Snow and ice storage accumulations should be located to avoid obstructing drains, downspouts, or walkway drainage features.

Answer: utilizes a system of overhead maps and e-mail communication with its customers to work with customers and to obtain the optimum snow and ice storage locations.
Section 5.1.6 – Stair systems, ramps, handrails and side rails should be cleared of snow and ice before permitting their use.

Answer: advises their customers as per their contract and or e-mail communication of this standard, but most customers do not find it practical or feasible to block off their stair areas during snow events until the snow ends. clears and de-ices stair systems, ramps, handrails, and side rails as per customer expectations and requests.

Section 5.1.7 – Walkway surfaces should be monitored and treated for refreezing.

Answer: does not engage in monitoring services as per its contract, but does go out 24 hours after a snow or ice event as is standard in the industry to check for melting and refreezing issues. is e-mail communication with its customers, and additional salting or de-icing for melting and refreezing are available upon request.

Section 5.1.8 – Removed snow and ice should be placed/stored in a manner that does not create a slip hazard upon melting or refreezing. For example, plowing snow accumulations to lower elevations of the property or onto grassy areas may prevent potentially hazardous refreezing of melt water.

Answer: utilizes a system of overhead property maps and e-mail communication to determine the optimum placement desired by the customer to place/store removed snow and ice.
Section 5.1.9 - Removed snow and ice should not be stored in a manner that creates a safety hazard for pedestrians, such as placement that blocks a path of egress. Fire hydrants and similar fixtures that should be covered by snow and ice should be marked with reflective posts, stakes, or other distinctive markings.

Answer: ___________ utilizes a system of overhead property maps and e-mail communication to determine the optimum placement desired by the customer to place/store removed snow and ice.

Section 5.1.10 - Special attention should be given to snow and ice clearance and control during reasonably foreseeable peak pedestrian traffic periods, including but not limited to early morning hours, shift changes, or prior to employee, vendor, visitor, and customer arrivals, including commercial dock or receiving area driveways, steps and ramps.

Answer: ___________ works with its customers through phone and e-mail communication to determine when and if peak pedestrian traffic periods exist and change or accommodate snow and ice clearance and control plans of action accordingly.

Section 5.1.11 - To scrape and wipe de-icing and anti-icing materials, slush, water and other debris from pedestrian footwear at entrances, suitable walk off mats, recessed grille mats, permanent carpet tiles and similar equipment should be used.

Answer: ___________ is not responsible as per its contract for providing walk off mats, recessed grille mats, permanent carpet tiles, etc. as per its contract. It advised its customers through verbal and e-mail communication to bring their buildings into compliance of this industry standard.
Section 5.2.1 – Plans for snow and ice control should be in writing. Procedures should be prioritized based on volume and type of pedestrian traffic.

Answer: ____________ has written plans for snow and ice removal in writing.

Section 5.2.2 – When utilized, snow and ice control service agreements with contractors should include means, materials, and methods for snow and ice control, as well as diagrams of areas to be serviced. Diagrams may also include locations of where snow storage accumulations should be placed to minimize slip and fall exposure.

Answer: ____________ utilizes a written snow and ice control agreement with its customers, but there may be some situations where the customer may deny the standard written agreement. All agreements will be communicated via e-mail and all agreements will include means, materials, and methods for snow and ice control. ____________ creates overhead property maps for its properties, and communicates with its customers verbally and via e-mail regarding areas to be serviced and to get approval from customers of where snow storage accumulations should be placed. In circumstances where ____________ does not have a written contract, it utilizes e-mail communications in replacement of a written service agreement.
Sections 5.2.3 - Parking lots, sidewalks, exterior steps, ramps and other walkway surfaces exposed to snow and ice should be repaired and free of trip hazards, prior to winter. Where feasible, low areas or other interruptions in drainage flow in walkway surfaces should be corrected in a manner that preserves the slip resistant properties of the walkway surface.

Answer: is not responsible for repair of upkeep of customer’s properties as per its service agreement, but it does advise its customers via e-mail of this industry standard and agrees it is good practice for its customers to adhere to.

Sections 5.2.4 - Painted walkway surfaces should include the proper application of abrasives as recommended by the paint manufacturer.

Answer: is not responsible for painting walkway surfaces of customer’s properties as per its service agreement, but it does advise its customers via e-mail of this industry standard and agrees it is good practice for its customers to adhere to.

Section 5.2.5 - Roof downspouts should direct drainage flow away from walkways or into underground or covered trough drains, drainage systems or landscaped retention areas rather than onto walkway surfaces that could freeze.

Answer: is not responsible for its customers roof downspouts drainage flow, as per its agreement, but does communicate verbally and via e-mail with its customers of the importance of this industry standard.
Section 5.2.6 – Vendor guidance regarding anti-icing and de-icing product effectiveness, temperature use, advantages, disadvantages, environmental impact, and cost per unit should be considered. Pre-storm application of anti-icing or de-icing materials accelerates the melting process by creating liquid brine between the walkway surface and the snow and ice accumulation. Wetting of de-icing materials in solid form may cause the chemicals to begin melting more quickly and could reduce waste or scattering of materials.

Answer: consults with salt and de-icing vendors on its product selection and has chosen a product based on effectiveness, temperature use, etc. monitors weather conditions via its third party weather service and utilizes pre-storm application techniques of salts and deicers as needed. Some customers decline this option even though recommends it. also utilizes the practice of wetting de-icing materials (salt) in solid form.

Section 5.3.1 – Motorized equipment such as plows, snow blowers, etc., should be utilized where manual methods cannot control snow and ice quickly or it would be impractical to use manual methods.

Answer: utilizes motorized equipment whenever manual methods are impractical.

Section 5.3.2 – Manual snow removal equipment, such as shovels, scrapers, brooms, and similar equipment should be utilized for detailed removal of snow and ice.

Answer: utilizes manual snow removal equipment such as shovels, scrapers, and brooms, etc. for detailed removal of snow and ice.
Section 5.3.3 – Anti-icing or de-icing equipment should be in good condition and free of leaks.

Answer: __________________ utilizes an inspection system before snow or ice events to ensure that Anti-icing or de-icing equipment is in good condition, free of leaks and working properly.

Section 5.3.4 – Workers using anti-icing and de-icing solutions should be trained on application requirements and techniques, preferably by the vendor, if proprietary products are used. Special training may be needed, including the amount to apply and the effect of warming temperatures and increased humidity.

Answer: __________________ does not use proprietary anti-icing or de-icing solutions, but does employ a training program for all its employees using anti-icing and de-icing solutions. See SIMA - Basic Principles for ice control.

Section 5.3.5 – When snow removal or the use of de-icing materials are not possible, sand and other abrasives can be used to create traction.

Answer: __________________ uses salt and deicers, but in the event that those materials are not available it will use sand as per its service agreement.
Section 6.1 – Snow and ice accumulations between parked vehicles should be removed, where practical, to reduce patches of ice and the potential for refreezing.

Answer: as per its service agreement is not responsible for plowing, salting, clearing or de-icing within three feet of parked vehicles, equipment or other obstructions. This standard is also communicated to its customers via e-mail, and additional snow and ice removal services are available to clear or de-ice around cars at an additional cost if customers request.
SIMA "Best Practices Checklist":

Environmental, Health, Safety, Liability & Risk Management

1: Verify insurance liability coverage to include specific "snow rider endorsement"

Answer: __________ carries "snow rider endorsement" on its liability insurance coverage.

2: Documented site engineering plan to verify areas to properly locate and stack snow to prevent thaw and refreeze areas and line-of-sight issues.

Answer: __________ uses overhead property maps and a system of verbal and e-mail communication to verify the areas to property locate and stack snow as per the individual customer/property’s request.

3: Documented safety program and policies including incident reporting process, on-going education, training and implementation (i.e. tailgate talks, perimeter inspections, safety equipment and PPE)

Answer: __________ has a documented safety program and incident reporting process, and participates in on-going education, training and implementation.

4: Parking lots and sidewalk clearing process includes ADA compliance guidelines.

Answer: __________ focuses its primary and immediate attention on handicapped areas and ramps when implementing snow and ice removal at a property. No snow is to be stacked or stored in handicapped areas.
5: Awareness of deicing/abrasive material impact on fresh water resources related to proper application rates and storage.

Answer: ____________ participates in ongoing research and education in the off season to maintain awareness of deicing/abrasive material impact on fresh water resources. All exterior salt depot locations are tarped to minimize runoff, and all salt is returned to a single inside stored location in the off-season.

**Estimating, Planning & Cost Effectiveness:**

1: Documented snow site engineering plan to verify client and site expectations for proper planning of equipment and production capacity (i.e. aerial maps with zone assignments & priority area designations)

Answer: ____________ uses overhead property maps and a system of verbal and e-mail communication to verify client and site expectations for proper planning of equipment and production capacity.

2: Utilizes a verifiable estimating system/tool to verify capacity related to size of site (e.g., sq. ft.)

Answer: ____________ measures all parking lots and sidewalks by square footage to determine the size of the site and the area to be serviced and the materials needed.
3: Production capacity planning based on system guidelines, cycle times, and resource allocation projections.

Answer: plans production capacity of snowplow sites based on the square footage of the site and estimating the amount of snow that will fall. It also estimates cycle times for salting, de-icing, and how much salt and deicer material a site will use based on the square footage of the site.

Execution & Responsiveness:

1: Documented snow site engineering plan to verify proper production capacity has been dedicated related to level of service and to identify priority areas to be serviced first.

Answer: uses overhead property maps and a system of verbal and e-mail communication to verify the level of service client expects for site. Works with its customers verbally and via e-mail to identify priority areas to be serviced first, and to determine expectations for proper planning of equipment and production capacity.

2: Documented snow response planning process for variability of storm scenarios

Answer: hires a third-party weather forecasting service and conducts "snow meetings" 24/7 during the winter season to address different storm scenarios and ways to address them.
3: Minimum required de-icing materials in inventory at all times necessary for 2-weeks' worth of average storm activity (average 2-5 storms dependent on geographic market) including product variety for variable temperature requirements (NaCl, CaCl).
Answer: ___________ keeps in stock at all times a minimum of 6 storms worth of salt and de-icing materials. It also has access to product variety at all times and is prepared for variable temperatures.

4: Planned reserve equipment & labor
Answer: ___________ utilizes a system of backup personnel and equipment as a reserve to help buffer larger snow or ice events, or in the event equipment breaks down or personnel does not show on sites.

Quality Of Service:
1: Documented snow site engineering plan to verify priority areas and zones (e.g. handicap zones, fire exits & hydrants, drains, etc.) and areas for snow to be relocated to ensure proper drainage, line of site, etc.
Answer: ___________ uses overhead property maps and a system of verbal and e-mail communication to work with its customers to determine priority areas, zones, and areas for snow to be relocated to ensure proper drainage.

2: Utilizes a site inspection process.
Answer: ___________ uses managers in the field to inspect sites before, during and after a snow or ice event to ensure they are serviced properly.
3: Consistent manager assigned to manage quality inspections.
Answer: divides the city into quadrants or "zones" and assigns the same manager every snow or ice event to inspect sites and manage quality inspections.

Communication, Documentation & Verification:
1: Documented verification process (e.g. site visit/work completion logs)
Answer: All snow and ice removal work/services performed by Snowmen Inc., is documented, recorded and stored digitally for 6 years.

2: Technology enabled (e.g. electronic reporting systems)
Answer: All employees and managers in the field during a snow or ice event carry Ipads or Ipones with custom software showing the location of sites to be serviced, property maps, service notes, types of materials to be used on the property, etc.

3: Utilizes a communication system (e.g., phone tree, electronic notification, centralized call center or contact).
Answer: Utilizes a third-party weather service call system to page and "alert" all snow employees and managers of incoming weather or surprise snow events. It also utilizes a phone tree system of management calling out workers by area, one area at a time, based on where it is snowing or icing.
4: Documented organizational communication process flow (e.g., Plan>Do>Verify>Re-Do>Invoice)

Answer: ___________________ has a documented organizational communication process flow – see written plans.

Certification/Standards & Education:
1: Certified Snow Professional (CSP) on staff.
Answer: ___________________ has two CSP’s on staff.

2: Advanced Snow Manager (ASM) on staff.
Answer: ___________________ has no ASM’s on staff, but encourages staff to obtain certification and has personnel in process of studying to obtain certification.

3: Attends continuing education seminars, webinars, trade shows, etc.
Answer: ___________________ staff attends the SIMA National Snow Convention and also attends local trade shows, seminars and events relevant to the snow and ice industry to continue the education of its staff.

Expertise & Professionalism:
1: Manager/Foreman assigned to manage site(s) has 5 years or more field experience.
Answer: ___________________ area managers in the field all have a minimum of 5 years’ field experience.
2: Staff assigned to perform work on the site(s) has 2 years or more field experience.
Answer: Employees and managers performing work on sites have a minimum of 2 years or more field experience.

3: Documented organizational and accountability structure for the company and site(s).
Answer: Company has a written, documented organizational and accountability structure for the company and site(s) – see written plans for snow and ice management.

4: Company/management is an active member of SIMA.
Answer: And the management is an active member of SIMA.
The End – Thank You!

1. Questions: