

FACILITIES MANAGEMENT



UNIVERSITY OF VIRGINIA

SNOW AND ICE CONTROL PLAN

2017 - 2018

Table of Contents

Introduction.....2

Snow and Ice Control Objectives.....2

Organization2

Director of Operations:.....2

Director of Health System Physical Plant:2

Landscaping Superintendent:.....2

HSPZ Zone Managers:2

Landscaping Supervisors:3

Academic Zone Managers:3

Incident Commander (IC):.....3

Assistant Incident Commander:3

Building Services:3

Facilities Management Designated Personnel:3

Athletic and Intermural Departments:3

Director of Operations, John Paul Jones Arena4

Fontana Food Center.....4

Contracted Snow Removal:4

Preseason Planning4

Review of Plan4

Materials and Equipment.....4

Annual Snow Review of Snow and Ice Removal Assignments and Communications Test5

Event Management5

Snow and Ice Removal Levels5

Weather Monitoring6

Mobilization6

Command & Control.....7

Areas of Responsibility.....9

Snow Removal Maps **Error! Bookmark not defined.**

Stand Down From Snow Removal Operations.....9

Post Event Activities.....10

Restocking of Inventory.....10

Cleaning, Evaluation and Repair of Equipment10

After-Action Review10

Appendices11

Appendix A: *Plow Trucks Assigned Equipment*11

Appendix B: *Contract Snow Plowing Areas*12

Introduction

Facilities Management has primary responsibility for snow and ice control operations for the University and Health System. This plan establishes basic priorities for conducting these operations; describes the organization, control, and communications procedures; and assigns specific responsibilities.

During a snow event, only bona fide emergencies have a higher priority than snow and ice control operations for landscaping and operations personnel.

Snow and Ice Control Objectives

In accordance with Policy HRM-032 *Disruption of Normal University Operation Resulting from Weather or Emergency Events*, snow and ice control operations will be undertaken to ensure that:

1. The University of Virginia Health System, to include outlying clinics and hospitals, operates without disruption
2. Safe access to University Grounds is maintained throughout a snow event for emergency vehicles
3. Access to the UVA Police Department is maintained
4. University bus routes are cleared and available for use by students, faculty, and staff
5. The schools and departments of the University will be able to operate during regularly scheduled hours while the University is in session
6. Housing Facilities will remain accessible for the duration of the storm
 - a. *Walkways and stairs at Gooch-Dillard, located on the third floor terrace (see map for exact location) are the only egress routes for this building and will be kept passable at all times during all snow and ice conditions. This is a code requirement and shall be included in future versions of the University Snow plan. Any changes to this requirement must be approved by the State Fire Marshal's office*

Organization

Director of Operations:

Overall responsibility for snow and ice control for all roadways, parking lots, and pedestrian access for the University Academic Division. Reports snow removal progress directly to the Associate Vice President and Chief Facilities Officer and the Office of Safety and Emergency Preparedness.

Director of Health System Physical Plant:

Overall responsibility for snow and ice control for all walkways and entrances in the Health System area.

Landscaping Superintendent:

Serves as the Snow Control Officer, reporting to the Director of Operations, for both the Health System and Academic areas. They are responsible for ensuring the continuity of the Snow Control Officer responsibilities during their absence.

HSPZ Zone Managers:

They are responsible for the supervision and prioritization of efforts to clear sidewalks, steps and entrances to Medical facilities. These efforts shall ensure that **all** emergency egress paths and

necessary entrances to all buildings remain clear at all times. Upon completion of the storm, all entrances will be cleared to their full widths. He or she shall establish a snow response procedure for his or her area. The manager of each area shall designate personnel and have a written procedure, communicated to each employee, addressing employee notification during snow events.

Landscaping Supervisors:

Responsible for the supervision and prioritization efforts to clear all roadways, parking lots, and parking garages in their assigned zone.

Academic Zone Managers:

They are responsible for the supervision and prioritization of efforts to clear sidewalks, steps and entrances to Academic buildings and Housing facilities. These efforts shall ensure that **all** emergency egress paths and at least one accessible entrance to all buildings remain clear at all times. Upon completion of the storm, all entrances will be cleared to their full widths. He or she shall establish a snow response procedure for his or her area. The manager of each area shall designate personnel and have a written procedure, communicated to each employee, addressing employee notification during snow events.

Incident Commander (IC):

Director of Operations functions as the Facilities Management Incident Commander. He or she sets objectives and priorities, devises strategies, and has overall responsibility for managing an incident. The Incident Commander will normally be activated during those times when a snow event has increased in scope such as a prolonged snow event, loss of utilities, or other facilities related events.

Assistant Incident Commander:

The Systems Control Center Manager functions as the Assistant Incident Commander, assisting the Incident Commander. The Assistant Incident Commander shall perform all duties and responsibilities of the Incident Commander during those times he or she is not available.

Building Services:

This division's primary responsibility during snow events is to ensure the interior entranceways and lobbies are free of melted snow and deicing materials that could be a slip hazard. When precipitation has ended, crews will support the clearing of building entrances to their full width. At all times, fire exits will be cleared to permit full door opening and all associated steps and/or landings will be kept clear.

Facilities Management Designated Personnel:

Members of Facilities Management who are expected to report to work during all events whether the University and Health System are operating on a normal schedule or not. In general, employees are responsible for responding to all snow events or contacting their manager or supervisor to determine if they need to respond.

Athletic and Intermural Departments:

These departments are responsible for clearing walks and entrances of their respective athletic facilities.

Director of Operations, John Paul Jones Arena

Responsible for clearing all walks, steps and building entrances to the arena.

Fontana Food Center

Department is responsible for the steps, walks and loading dock associated with this area.

Contracted Snow Removal:

A severe snowstorm might be more than the Facilities Management staff and equipment can handle. There are standing contracts to use for snow removal from University maintained surface parking lots and streets. These contracts are **not** normally necessary for snowfalls of short duration or less than 2” accumulation. Every effort should be taken to handle snow removal with in-house resources. The decision to activate the contractors is determined by the Snow Control Officer.

Preseason Planning

Review of Plan

The Snow and Ice Control Plan shall be reviewed and updated by October 1 annually for the upcoming snow season by the Landscaping Superintendent.

Materials and Equipment

By October 15th of each year

The Landscaping Superintendent shall ensure that:

- The below deicing materials are on-site and ready for issue

Materials	Quantities
Bulk Sand	35 Tons
Bulk sand & salt mix	100 Tons
Bulk salt	60 Tons
Magnesium chloride (or equivalent)	15 Tons

Quantities are the minimum that shall be on-site at the start of the snow season

- All snow removal trucks and associated equipment (i.e. plows, spreader, etc.) have been serviced and are ready for use

Zone Managers shall ensure that:

- An inventory of all small equipment is completed and provided to the Landscaping Superintendent
- All small equipment that is used for the particular snow removal needs of their assigned areas is prepared, tested, and ready for use – schedule needed repairs with the Landscaping Superintendent.
- An inventory of consumable equipment (i.e. shovels, PPE, etc.) is completed and needed items are ordered and available by November 1st of each year

- Ensure all staff understands his or her emergency status – designated vs. non-designated

All Other Teams such as Project Services, Utilities, Fire Protection, Chiller Plant, and Heat Plant, Automation Services, Metering, and Recycling shall:

- Provide inventory of all snow removal equipment (i.e. vehicles w/ snow plows, gators w/ snow plows, snow blowers, etc.) to the Landscaping Superintendent
- Complete an inventory of consumable equipment (i.e. shovels, PPE, etc.) and ensure needed items are ordered and available by November 1st of each year
- Ensure all staff understands his or her emergency status – designated vs. non-designated

Annual Snow Review of Snow and Ice Removal Assignments and Communications Test

By the start of the snow season or November 1, whichever is earlier, the Systems Control Center Manager and Landscaping Superintendent shall schedule a meeting of Facilities Management Managers and Supervisors to review the current year snow plan. This shall include review of priority areas, equipment deployment, and command & control operations during a snow event. The FM Snow Alert Group shall be reviewed for needed changes and a test alert shall be sent to all members.

Event Management

Snow and Ice Removal Levels

There are three levels within the Snow and Ice Control Plan as defined below:

Level I - Minor, Localized Impact

Level I of a winter weather related emergency is typically defined as a light snow or flurries during normal working hours with no measurable accumulation or snow accumulations of 1 inch or less during the evening hours, weekend, or during holidays. It is possible that there will be ice forming on walks, steps, or roads. These events are easily managed by Landscaping personnel.

Level II – Significant, But Limited Impact

Level II of a winter weather related emergency is typically defined as a snow that is 1" - 6", snow/ice fall during off hours not allowing enough time to be cleared by 7:00 a.m., snow falling heavily, with accumulation possible, dangerous ice forming on walks, steps, and roads. This level normally requires additional support from Maintenance Zones and possibly other departments.

Level III – Significant, Widespread Impact

Level III of a winter weather related emergency is typically a snow that is 6 inches or more, heavy snow or ice, continued snow or ice over long periods, accumulating snow or ice during class hours. This level requires the mobilization and assignment of snow removal duties of available personnel from all operational areas in Facilities Management, to include the Health System Physical Plant. Facilities Management staff may be asked to report to work early or to work after their normally scheduled hours to assist with snow or ice removal.

******It is possible that additional support will be requested at any of the above levels******

Weather Monitoring

Monitoring of the weather shall be the responsibility of both the Landscaping Superintendent and the Systems Control Center Manager.

- Prior to weekends or holidays when weather forecasts indicate a reasonable probability of snow or ice conditions, plows and salt spreaders will be mounted on selected equipment **as determined by the Landscaping Superintendent** and those vehicles shall be fully fueled
- Whenever weather forecasts or conditions indicate a high probability of imminent snow or ice conditions, snow and ice control personnel will report as conditions warrant. Personnel may be held after normal working hours to prepare equipment and commence initial sanding, salting, or plowing.
- The Landscaping Superintendent shall convene a “storm event planning meeting” whenever a large scale snow event is expected (i.e. Level II or Level III event) to discuss:
 - Preparation measures:
 - Relocation of Facility Management vehicles
 - Equipment / deicing material staging
 - Hotel arrangements (if required)
 - Assignment of equipment
 - Staffing needs

Meeting shall be scheduled at least 48 hours in advance of expected snow or ice event

- Attendees shall include:
 - Director of Operations
 - Director of Project Services
 - Landscaping Superintendent and Supervisors
 - Associate Director of Maintenance
 - Associate Director or Manager of Utility Distribution Systems
 - Associate Director of Power & Light
 - Associate Director of Building Services
 - Associate Director for Housing
 - Associate Director of Automation Services
 - Deputy Director for Operations for Health Systems Physical Plant
 - Director of Programs and Informatics
 - FM Safety Director
 - Snow Zone Managers

Landscaping Superintendent or the Systems Control Center Manager shall be responsible for briefing the Facilities Management leadership of the planning measures.

Mobilization

During normal working hours, supervisors are responsible for communicating snow and ice control measures duties to their staff. After normal working hours, weekends, or holidays, personnel assigned to snow and ice control duties should call the Facilities Management Snow

Line (434-243-0647). Supervisors and Managers will receive an alert from the Landscaping Superintendent regarding the weather event.

Command & Control

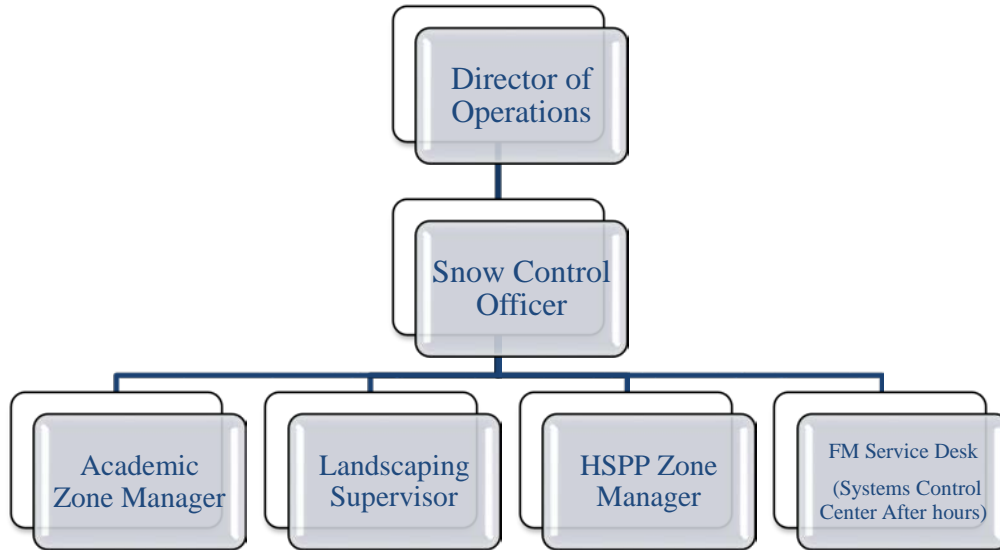


Figure 1 Organizational Structure - Snow Event Only

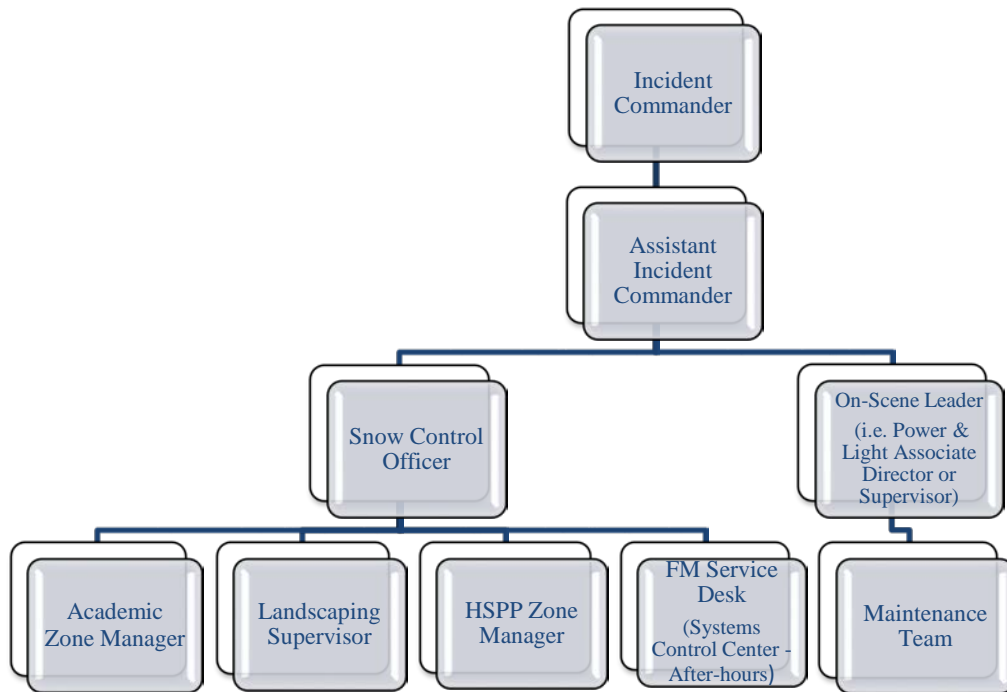


Figure 2 Organizational Structure – Snow & Utility/Facilities Event

During a snow event, communications must be maintained between the Snow Control Officer, Landscaping Supervisors, Maintenance Zone Managers, and FM Service Desk or Systems Control Center after-hours to ensure priority areas are cleared as quickly as possible in order to maintain access to critical areas of the Health System and University. In most snow events, the Snow Control Officer, with assistance from the Systems Control Center Manager as needed, will coordinate all snow removal activities and report directly to the Director of Operations on snow removal progress. However, as the weather event increases in scope such as a prolonged snow event, loss of utilities, or other facilities related events, the Incident Command Structure shall be activated and the Incident Commander will assume control of the incident. The Incident Commander shall work directly with Systems Control to create and send “Significant Event” update messages to key University and Medical Center personnel. Other command and control measures include:

- For Level I, II, & III events, FM Service Desk or Systems Control Center will receive all requests for snow or ice removal. Requests will be sent to the Snow Control Officer, who will determine the priority for all requests received and assign to Landscaping Supervisor for a Level I event or Snow Zone Manager during a Level II or III as appropriate.
- Level II or III events may require the addition of an Incident Commander. In these situations, the Facilities Management Upper Level Conference Room may be used as the Control Center.
- The Snow Control Officer:
 - Is responsible for carrying out the snow and ice control plan, for closely monitoring available sources of weather information, and for maintaining liaison with the Virginia Department of Highways and Transportation, the University Police Department and the Office of Emergency Preparedness concerning weather and road conditions
 - Is responsible for scheduled updates to the Facilities Management Leadership on the conditions of roads and sidewalks
 - Level I: As needed
 - Level II: Every two hours
 - Level III: Hourly
 -

NOTE 1: Snow Zone Supervisors and Managers shall provide the Snow Control Officer with updates on the condition of their zone’s sidewalks and roads following the above schedule.

- Works closely with Parking & Transportation to determine contractor needs during a storm event; contractors to begin plowing only when directed by the Snow Control Supervisor
- Landscaping Supervisors and Zone Managers shall check-in/out at the beginning and end of their shift to ensure that the Snow Control Officer has the most current status of their zone’s sidewalks and roads
- Facilities Management designated personnel, who are **NOT** part of zone maintenance shall check-in with their assigned snow zone for their snow removal assignments
- Designated employees are assigned responsibility for clearing steps and walks, and shall be held over or called back for such duties as required to assure that essential access, such

as egress routes and handicap access is available to all buildings. The Landscaping Supervisors and Zone Managers shall initiate “Callback” on the direction of the Snow Control Supervisor.

Areas of Responsibility

Health Systems Physical Plant:

Zone 1: University Hospital, Battle Building at UVA Children’s Hospital, Lee and 11th Street Garages, Primary Care Center, University Hospital Helicopter Pad, 1222 Jefferson Park Avenue, Clinical Lab, Emily Couric Cancer Center, Patton Mansion

Zone 2: Elson Student Health Center, Medical Research Lab (MR4), Biomedical Engineering and Medical Science Building (MR5), Carter-Harrison Research Building (MR6), McLeod Hall, South Parking Garage, Outpatient Surgery Center, Jordan Hall, Claude Moore Nursing School, 999 Grove Child Care, Claude Moore Medical Education Building, Stacey Hall, 1107 W. Main, and 1003 W. Main

Zone 3: Wertland Street Lab, 120 Chancellor, Cobb Hall, Davis Wing, McIntire Wing, Private Clinics Wing, Barringer Wing, Old Medical School, Corner Bldg, Multistory Building, McKim Hall up to Hospital Drive, and Hospitality House

Zone 4: KCRC Children’s Rehab Center, Northridge, Transitional Care Hospital, Moser Center, Medical Office Building 1, Medical Office Building 2, Aurbach Medical Research Building, and Sheridan G. Snyder Translational Research Building

Landscaping Department:

The Facilities Management Landscape Department has primary responsibility for snow removal from academic areas with support from Maintenance Zones and other FM Departments. See link below for snow zone information.

http://gis.virginia.edu/Documents/GIS_SnowRemovalAreas.pdf

NOTE 2: Snow and ice control operations can require an extended period of work. Facilities Management supervisors shall manage work assignments so that employees are assigned to shifts, normally not exceeding 12 hours, with rested workers available to continue operations. Any shift that exceeds 12 hours must be approved by a Director.

NOTE 3: If extended operations are required, adequate sleeping quarters shall be provided for rest between shifts. Work Management will coordinate needed hotel rooms within 48 hours of snow event.

Stand Down from Snow Removal Operations

The Snow Control Officer, in discussion with the Director of Operations, Zone Managers, and Landscaping Supervisors, shall determine when Facilities Management snow removal operations end. Upon the decision to end snow removal operations, the Snow Control Officer shall

determine if any follow up service or monitoring is needed. If residual clean up remains, this will be completed by Landscaping, Building Services, and Zone Maintenance personnel

Post Event Activities

Restocking of Inventory

As soon as practical following an event, all Departments and Maintenance Zones shall complete an inventory of consumable equipment such as shovels, PPE, and deicing materials. Replenish those needed items as soon as possible in preparation for the next snow event.

Cleaning, Evaluation and Repair of Equipment

Equipment operators shall clean and inspect equipment and report any damage, wear, defect, or concern about equipment to **Landscaping Superintendent**. Plow trucks shall be cleaned and inspected for damage or needed repairs. **Those trucks needing repair shall be reported to the Landscaping Superintendent**

After-Action Review

An after-action review shall be scheduled by the Systems Control Center Manager within 48 hours of the ending of the event to discuss any needed changes to equipment or personnel deployment and any additional concerns or suggestions.

- Attendees shall include:
 - Director of Operations
 - Director of Project Services
 - Landscaping Superintendent and Supervisors
 - Zone Maintenance Managers
 - Associate Director of Maintenance
 - Associate Director or Manager of Utility Distribution Systems
 - Associate Director of Power & Light
 - Associate Director of Building Services
 - Associate Director for Housing
 - Associate Director of Automation Services
 - Deputy Director for Operations for Health Systems Physical Plant
 - Director of Programs and Informatics
 - FM Safety Director

Appendices

Appendix A: Plow Trucks Assigned

Truck Number	Org. Assigned	Snow Assign	Equipment	Utilization
346	20235	FO	Plow & Spreader	Parking decks
719	20235	FO	Plow & Spreader	Streets, parking lots
720	20235	FO	Plow & Spreader	Streets, parking lots
721	20235	FO	Plow & Spreader	Streets, parking lots
723	20235	FO	Plow & Spreader	Streets, parking lots
726	20235	FO	Plow & Spreader	Streets, parking lots
380	20235	FO	Plow & Spreader	Streets, parking lots
448	20235	FO	Plow	Streets, parking lots
517	20235	FO	Plow	Streets, parking lots
581	20235	FO	Plow	Streets, parking lots
597	20235	FO	Plow	Streets, parking lots
637	20235	FO	Plow	Streets, parking lots
639	20235	FO	Plow	Streets, parking lots
645	20235	FO	Plow	Streets, parking lots
656	20235	FO	Plow	Streets, parking lots
687	20235	FO	Plow	Streets, parking lots
731	20235	FO	Plow	Streets, parking lots

Appendix B: Contract Snow Plowing Areas

Location	Lots	Funding	Criteria	Responsibility	Contractor
Scott Stadium	Red,S6, E3, T4	P&T	As necessary	FO	Rose
Ruffner Hall	R1, R2, R6	P&T	As necessary	FO	Rose
Clark Hall	C1	P&T	As necessary	FO	Rose
Bice House	K2	P&T	As necessary	FO	Rose
Facilities Management	E1	P&T	As necessary	FO	Rose
North Grounds	D1, D2, D3, D5, D22,	P&T	As necessary	FO	Rose
Judge Advocate General	X1, X2	JAG	As Necessary	FO	Rose
Carruthers Hall	Blue, Y1, Visitor lot	P&T	As necessary	FO	Rose
Michie	Y2	P&T	As necessary	FO	Rose
John Paul Jones Arena	JPJ	P&T	As necessary	FO	Rose
University Hall	Blue, Commuter/Storage (Cage & S. Massie)	P&T	As necessary	FO	Rose
Health System	U3, U5, M1, M3, M4, M6, M9, M10, M11, M16, S3, B1, Loading Dock	HSPP	As necessary	FO	Rose
Health System	Hauling	HSPP	As necessary	FO	Rose
Health System	Streets	HSPP	As necessary	FO	Rose