

Haines Borough
Public Facilities Department
Snow and Ice Control Manual



2022 - 2023

HAINES BOROUGH

SNOW AND ICE CONTROL GUIDELINES

OVERVIEW

It is among the responsibilities of the Haines Borough to manage snow and ice on Borough streets and public property under the Borough's jurisdiction. The purpose of this Snow and Ice Control Manual is to establish the Haines Borough Public Works Department's guidelines and level of service in respect to the management of snow or ice and maintenance of its road system during the winter months. This manual and the practices herein are designed to provide cost effective snow removal operations within the Haines Borough.

The objective of these policies and procedures is to provide adequate traction for vehicles properly equipped for winter driving conditions. Priority is given to streets in the town site, central business district, and primary collector roads which carry the largest traffic volumes and provide access to public facilities such as police, fire, EMS, medical clinic, school, and other public facilities. Limited resources may preclude service on lower priority streets until higher priority streets have been completed. It should be expected that during storms of high intensity or long duration and during non-regular working hours, drivers on lower priority streets will encounter loose snow and/or snow-packed or icy conditions. Snow and ice control operations will continue during regular hours and/or until all streets are passable or when plowing and sanding is no longer effective.

Setting policies for snow and ice management involves evaluating and weighing several considerations, including the following:

1. Public Safety. The safety of those traveling by motor vehicle, on foot and by other modes of transportation is of high priority. The goal of the Borough is to provide for surface conditions that are safe for travel in consideration of surrounding conditions and circumstances. Also, vehicles and personnel engaged in snow and ice management activity can increase risk to the public by virtue of their presence on public ways during times when travel conditions and vision are impaired.

2. Personnel safety. Borough personnel incur risk by their presence on public ways while managing snow and ice. The safety of Borough personnel as well is of the utmost importance.
3. Cost. Borough funds are limited and taxpayers require that they be spent cost-effectively. It is not possible to address all snow and ice issues simultaneously and completely. It is not practical to maintain equipment and personnel availability at a level that is sufficient for all circumstances.
4. Environment. Materials to maintain or improve surface traction contribute pollutants such as sand and chlorides to surface waters and to Borough stormwater basins and other facilities, which in turn can increase the cost of maintaining those facilities. It is important not to use an excess of these materials.
5. Priority setting to optimize outcomes. Because consideration must be given to all factors, it is necessary to set priorities for snow and ice management activities. Considerations include, though are not limited to, maintenance area classification and vehicle use level, need for emergency vehicle access, areas of known safety risk, reported conditions, costs, and impact on the environment.
6. Management/professional/technical judgment. Policies and practices rest on management, professional, and technical knowledge, on prevailing weather and travel conditions and on other circumstances that winter maintenance professionals encounter.
7. Need for adaptability. Particularly with respect to effectiveness, cost and environmental consequences, snow and ice management is a realm of innovation. It is important that the Borough policy allow for personnel to maintain awareness of developments and allow for practices to be adjusted as appropriate. The public must practice due care given the continuously changing hazards presented by natural snow and ice concerns.

The policies stated in this document, as well as any delegations of authority to set subordinate policies, rest on an assessment and balancing of these considerations. It is not possible or practicable for snow and ice to be fully removed from all surfaces or prevented from accumulating on surfaces. The Borough encourages and expects that Borough residents and other members of the traveling public will at all times conduct their activities mindful of conditions, hazards, and what is necessary to remain safe.

RESPONSIBILITY

Under the general direction of the Public Facilities Director, the Public Works Superintendent is responsible for implementing the Borough's Snow and Ice Control Policy.

IMPLEMENTATION

This Manual will be in effect during normal winter operations at times when weather conditions could cause accumulation of frost, sleet, ice, snow or other occurrences on the streets and public parking lots of the Haines Borough.

SNOWPLOWING AND SNOW REMOVAL

The primary method of snow control and removal within the Borough shall be by mechanical means – the physical act of plowing snow with the appropriate equipment. The Borough utilizes many different types of equipment (e.g. Tandem Axle Truck, Loader, Grader, etc.) during snowplowing and snow removal operations. The equipment utilized is chosen to fit the job that must be performed at that time.

For snowplowing activities, the Borough typically utilizes truck mounted reversible plows and underbody plows, motor graders, and front-end loaders. In addition, the Borough utilizes wing plows on their graders and plow truck for more efficient and effective plowing operations. For physical snow removal, the Borough utilizes front-end loaders and dump trucks to haul snow to designated snow dumps/disposal areas.

Residents and motorists should expect that snow will be plowed into cross streets and driveways as a normal part of the snow removal process.

ICE CONTROL

Ice control operations will consist of the application of abrasives in designated areas as well as scarifying the snowpack utilizing ice blades on graders and with underbody plow on the Borough's snowplow truck. When accumulated snow becomes compacted and plowing becomes ineffective, abrasives will be used as in normal ice control operations.

During some winter storm events it may be desirable to utilize abrasives (sand) to provide additional traction. While abrasives do not have the ability to melt snow and ice, they can provide traction in certain types of conditions. Due to the high

overall costs associated with the use of abrasives and the associated environmental impacts, abrasives are typically only applied on hills, curves, and at intersections controlled by a stop-sign.

SNOW AND ICE CONTROL TRAINING

Prior to the start of the snow season, the Public Works Department will conduct training activities for personnel that will be involved in snow and ice control activities. The training will consist of classroom and hands-on equipment training, including the operation of graders, sanders, snowplows and front-end loaders. Prior to commencing winter road maintenance, staff will be briefed on winter maintenance standard operating procedures. The Public Works Department also have access to a variety of training videos for various aspects of maintenance operations. New staff or policy changes shall also prompt training and review of procedures. The Public Works Superintendent is responsible for ensuring the snow removal crew is adequately trained.

WEATHER MONITORING

Knowing existing and potential weather conditions is very important for a successful snow and ice control operation. Six pieces of information are especially valuable:

1. Start of precipitation
2. Type of precipitation
3. Total precipitation expected
4. Expected event length
5. Wind conditions (speed, gusts, directions)
6. Air temperature trend

The Public Works Superintendent will monitor the weather closely so that the Public Works Department is available and prepared to act early in storm situations. The primary source of weather information and data is the National Weather Service website (<http://www.weather.gov/> (then click on AK area)). The Public Works Superintendent will use the National Weather Service daily forecasts to monitor weather conditions. Additional sources of weather information include:

- Neighboring agencies such as the Alaska Department of Transportation and Public Facilities
- Local TV and radio stations
- Other Internet weather sites

The Public Works Superintendent or his designee is responsible for scheduling snowplow crews based on these forecasts.

COMMENCEMENT OF OPERATIONS

The Public Works Department will monitor conditions whenever there is danger of ice or snow conditions developing on Borough roadways. The Police Department also reports icy conditions to the Public Works Department after regular working hours. When snow or ice begins accumulating on Borough streets, the Public Works Superintendent, or his designee, will authorize commencement of plowing and/or sanding operations. Several factors impact when the Public Works Department begins snow removal. These factors include, but are not limited to, current roadway and weather conditions, forecasted weather conditions, and the time of day. Each storm presents unique challenges which must be dealt with accordingly. The Public Works Department will take all factors into consideration and decide on the appropriate time to begin the snow removal process. Table 1 below provides general guidance for commencing snow removal based on various snow accumulations.

SERVICE LEVEL PRIORITIES

Priority Levels provide the basis for dispatching Public Works staff and equipment so they can effectively and efficiently perform snow and ice removal and control operations. Borough roads will be cleared and maintained based on service level priority. The following factors were taken into consideration in establishing service priorities.

1. Road Functional Class.
2. Traffic Volumes.
3. Providing service to routes accessing public safety facilities, medical facilities, employment centers, and governmental facilities.
4. Availability of alternate routes.
5. Steep grades, sharp curves, intersections, or potentially hazardous areas.
6. Emergency vehicle accessibility.

Snow plowing and sanding activities will be accomplished by service level priority. Road service priorities are designated as level one (1) through level (3) three with level one as the highest priority.

The snow removal and ice control priority list and map (See Appendix A and B) identify roadway priority levels. The list and map will be reviewed annually and

updated as needed. The Public Facilities Director or designee may make discretionary changes to the service priority of any road when in his/her judgment conditions require such actions.

PRIORITY OF SERVICE

Borough streets have been divided into the following three (3) snow removal priority categories:

- **Priority #1** (Highest Priority) – **The main objective of snow removal priorities is to keep the town site streets open for the safe passage of traffic.** Other Priority 1 areas include the Central Business District and town site core, roads providing access to public facilities including police, EMS, medical clinic, and school. Primary collector roads are also included as well as the primary school bus route. If snow starts after 3 pm and is expected to accumulate overnight, plowing will start at 5 am the next morning.
- **Priority #2** – Secondary roads, alleys and cul de sacs that serve a functional need for public access and residential areas
- **Priority #3** –Borough parking, alleys, cul de sacs, fire hydrants, trailheads and sidewalks.

Table 1. Service Level Priority Guidelines

Priority	Snow Depth at Which Plowing Typically Will Begin		Full Pavement Width that Typically will be Cleared After Ending of Storm
	Desirable	Maximum	
Priority 1	*3"	*5"	*6 Hours
Priority 2	*4"	*6"	*10 Hours
Priority 3	*6"	*8"	*24 Hours

*The snow depths for plowing after business hours listed above are guidelines and may not be adhered to for each storm event. The Public Works Superintendent will have discretion based upon current and forecasted weather and pavement conditions.

Priority 1 and 2 streets are the first streets that receive plowing and sanding. Once Priority 2 streets have been addressed focus is shifted to Priority 3 areas that are completed during Normal Daily Schedule hours.

SERVICE LEVEL GOALS

The Borough does not have a bare pavement policy. Snow and Ice Control operations are intended to provide the prudent motorist with a reasonably safe traveling surface. During heavy snowfall or severe icing conditions motorists may need to install chains or other traction devices.

The primary goal of winter maintenance for the Public Works Department is to achieve "passable roadways" within the limitations imposed by weather conditions, available resources, and environmental concerns during a winter weather event. A passable roadway is defined as a roadway surface that is free from as much ice, loose snow, and snowpack as is practical and can be traveled safely at reasonable speeds. "Reasonable speed" is defined as a speed that most vehicles properly equipped for winter driving can travel without losing traction.

During and immediately after a winter storm event, a reasonable speed will most likely be lower than the posted speed limit. Motorists can expect some inconvenience and will be expected to modify their driving practices to suit road conditions.

Service Level Goal During Snow Event

Priority 1 and Priority 2 Roads - Maintain two lanes of passable roadway during the storm. Remove snow through the duration of storms to keep roads open to traffic and provide a passable roadway surface on which to operate. Overtime may be authorized to keep Priority 1 and Priority 2 roads passable. Severity of the storm may delay response time for Priority 2.

Priority 3 – After Priority 1 and 2 roads are open and have traction material applied as needed, when personnel and equipment are available, remove snow during the storm to keep the roads open for two lanes of traffic. Snow removal shall be accomplished during regularly scheduled work hours when personnel and equipment are available.

Service Level Goal After Snow Event

Following a snow/ice event, the Public Works Department's Service Level Goals are as follows:

All roads are passable with varying conditions. Travelers should be prepared to drive compact snow, and ice. Drivers may encounter some standing water, packed snow, and icy patches covering the surface. Generally loose snow has been cleared

from the traveled way and shoulders and traction is adequate for most vehicles properly equipped for winter driving. If required for traction, sand is applied to hills, curves, intersections, and other problem areas.

After Priority 1 and 2 roads are opened and maintainable, removal priorities are dedicated to plowing sidewalks and pushing back snow berms to make room for the next snowfall. Driveway berms will not be cleared. This is an individual property owner's responsibility.

The actual performance in achieving the above goals will vary due to the dynamic nature of winter weather. Storms vary widely in their characteristics, and winter maintenance activities may deviate temporarily from the descriptions above based on the timing, intensity, duration of the storm, temperature, humidity, wind conditions, and the nature of the precipitation. While winter storms may at times temporarily overtake snow and ice control operations, the conditions above describe the objectives that the Public Works Department continues to strive to obtain.

STAFFING AND SHIFTS

The Public Works staff consists of four (4) equipment operators including a Superintendent. Typical winter maintenance shifts are Monday to Friday 7 am to 3 pm. Actual operating hours may vary based on storm conditions, as determined by the Public Works Superintendent.

APPLICATION OF TRACTION MATERIAL (SAND)

Placement of traction materials on most roads is limited during heavy snowfall because the traction material is quickly covered and then removed as additional plowing occurs. When applying traction materials, special attention is given to sections of the road network posing specific safety concerns. These include, but are not limited to, areas such as school and medical clinic zones, police and fire stations, turn lanes, approaches to intersections that are stop sign controlled, curves, steep grades, heavy traffic areas, areas of ice accumulation, and areas with other known problems. Unless otherwise approved by the Public Works Superintendent, traction materials will be applied only to intersections where vehicle stops are required, and to steep grades, and curves.

SANDING APPLICATION PRIORITY

In the event of a Borough-wide condition of ice build-up, the priority for sanding application will be the same as it is for snow removal. In accordance with this plan, traction materials will be applied only to intersections where vehicle stops are required, and to steep grades, and curves. If the Department receives actual notice of an area that would benefit from the application of traction materials, the Public Works Superintendent shall evaluate the need in accordance with the priorities of this plan. Sanding material will not be applied to straight-level roads. During snow events, sanding materials will be applied only after plowing operations have ended.

SNOW HAULING

After the initial storm response, it is often necessary to remove snow from selected areas of the Borough. Snow hauling is done on an "as-required" basis and, typically, as time allows. Snow hauling is done primarily with Borough forces and augmented by contract trucks.

After periods of significant snow events, the Borough may elect to haul snow from designated intersection rights-of-way and other locations to minimize sight obstructions and to provide snow storage for future snow events. The decision to initiate this operation will be dependent upon the depth and accumulation of snow and analysis by the Public Works Department for any significant sight triangle issues. Operational priorities will be assigned to intersections based on street classification, traffic volumes, and severity of sight restrictions.

Snow will only be removed from intersections where a public street intersects with another public street. This operation will typically be conducted after other higher-priority post-storm activities have been completed. Under normal circumstances, hauling of the snow will be conducted during regular work hours. Snow removal from the right-of-way into private property driveways will be the responsibility of the adjacent private property owner.

SNOW WINGING AND BENCHING

Wing plows are plow attachments that are mounted on either side of a snowplow truck, front-end loader, or grader and are used to extend the plowed surface of a single truck/loader/grader. The wing plow enables the snowplow operator to plow a wider path than with a front plow alone. Wing plows can be used alone or in conjunction with other plows.

During a snow event, wing plows are used to improve snowplow efficiency by allowing an additional 4 to 5 feet of snow to be pushed back with each pass and they can shorten cycle time by possibly eliminating the need for additional passes to plow the shoulder.

After a snow event with heavy snowfall or after several storms result in substantial snow banking, the Public Works Department will undertake a roadway widening procedure which will push back the snowbanks and haul snow from town site areas. This is a necessary operation because it accomplishes the following:

- (A) Provides room for future snow storage.
- (B) Reduces or prevents melted snow from running out onto the roadway pavement and creating icing conditions.
- (C) Increases safe sight distance at intersections.
- (D) Maintains a uniform line by eliminating protrusions at driveways and intersections.

Benching and shelving are usually accomplished with wing plows. It may be part of a push-back operation to provide additional snow storage, improve sight distance, or widen an existing plowed path.

ON STREET PARKING BAN DURING SNOW REMOVAL

It is dangerous and challenging to plow narrow streets that are congested with parked vehicles. Plowing around parked cars limits the effectiveness of snow removal activities. Some narrow streets may not be plowed if equipment cannot safely drive down them. The most helpful thing residents can do to facilitate snow removal is to move vehicles off the street and encourage their neighbors to do the same.

In order to facilitate the effectiveness of snow removal, private parking is not allowed on any borough town site street during snow removal operations. This protects vehicles from being plowed in or damaged during snow removal. Vehicles left parked in areas of snow removal will be towed and ticketed (Haines Borough Code 10.44.010).

PRIVATE ROADS AND DRIVEWAYS

The Haines Borough does not provide winter weather services to private roads. Borough snow removal equipment will not clear private driveways except under emergency conditions and with the approval of the Public Facilities Director. The snow placed in driveways by Borough plows as part of normal winter road maintenance is the responsibility of the property owner to remove.

The Borough will not plow or clear snow or ice from private property unless it must be done to allow emergency vehicles access to the private property for Fire, Police, or EMS response.

Snow from a private driveway may not be placed on or pushed across a Borough Street.

EQUIPMENT MAINTENANCE AND REPAIR

As in all maintenance operations, successful snow and ice control depends upon the skillful use of manpower, equipment, and material. The efficient and economical control of ice and snow depends on the availability and utilization of the proper equipment. This availability does not just happen. It involves a well-planned program that is in progress during each season of the year. It also includes a program of routine inspection, maintenance, and repair of equipment utilized in snow removal operations. Daily equipment walk-arounds are required at the beginning and end of each shift.

The practice of equipment operators thoroughly inspecting their assigned equipment will aid in early identification of issues, help minimize damage during snow removal operations, and can prevent a breakdown before it actually occurs. The intent of this practice is to develop operator knowledge of assigned equipment; establish a standard for operator maintenance and service requirements; and capture equipment faults prior to use. Furthermore, during these inspections, the operator is authorized to complete minor repairs and adjustments that would otherwise require attention from shop facilities, further bogging down their workload.

CITIZEN INQUIRIES/CONCERNS

Issues concerning snow and ice control efforts will be routed to the Public Facilities Department. Citizens calling directly to the Department should leave a message with contact information if staff are unable to answer the phone. The Public Facilities Director will determine appropriate follow-up responses and contact each citizen within 72 hours of the initial call.

COMMUNICATIONS

Providing information to the public is a vital part of the winter maintenance snow removal process. Borough residents need to know how they can help facilitate snow removal and what to expect in terms of a response by the Public Works Department to winter storms. Messages sent to the public can range from simple requests to remove parked vehicles from the street to notification of street closures, or other severe conditions.

Prior to snow season each year, the Borough will convey information regarding parking restrictions, sidewalk snow removal requirements, prohibitions against throwing or blowing snow on to Borough streets and snow removal priorities.

The Public Works Department will work closely with the Borough Administration and Police Department to convey information regarding snow removal activities as needed and to request resident compliance with snow removal parking restrictions.

DISTRIBUTION OF MANUAL

- Borough Manager
- Public Works Director
- Public Works Superintendent
- Chief of Police
- Harbormaster
- Fire/EMS Chief
- Lands Manager
- Borough Clerk

Appendix A
Winter Maintenance Road Priority List

**Haines Borough
2022 - 2023 Snow Plowing**

Snow Route	Operator	Machine	Priority	Route Priority List Road Name	Description	Length, FT
GREEN	PATRICK	CAT 160M	1	Young Road	Lutak to End	5010
GREEN	PATRICK	CAT 160M	2	N 6th Ave	Main to Union	725
GREEN	PATRICK	CAT 160M	2	Mission Street	S 3rd Ave to S 1st Ave	250
GREEN	PATRICK	CAT 160M	2	Skyline Drive	Young Road to Young Road	2370
GREEN	PATRICK	CAT 160M	2	Bjornstad Road	Young Road to Highland Drive	590
GREEN	PATRICK	CAT 160M	2	Highland Drive	Bjornstad Rd to End	1210
GREEN	PATRICK	CAT 160M	2	Muncaster Road	Bjornstad Rd to Young Rd	1960
GREEN	PATRICK	CAT 160M	2	E Oslund	Young Road to Muncaster St	2490
GREEN	PATRICK	CAT 160M	2	Haven Court	Lutak Road to End	900
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	3rd Ave	Haines Highway to View	2250
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	Dalton	6th Ave to Front	2080
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	South Front Street	Main to Beach Road	1860
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	S 1st Ave	Mission to Main	960
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	S 2nd Ave	Haines Highway to Main	1250
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	Willard Street	S 3rd Ave to S 1st Ave	640
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	1	Union	2nd Ave to Front	630
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	2	N 5th Ave	Main to Union	725
GREEN/RED	PATRICK/WES	CAT160M/CAT950M	2	N 4th Ave	Main to Union	750
PURPLE	SHANNON	CAT950H	1	Public Safety Building	Open for Emergency Vehicles	600
PURPLE	SHANNON	CAT950H	1	Tower Road	Mud Bay Road to Beach Road	2560
PURPLE	SHANNON	CAT950H	1	Old Hart St	FAA Road to Matrix Drive	550
PURPLE	SHANNON	CAT950H	2	Fort Seward Drive	Full Loop	2570
PURPLE	SHANNON	CAT950H	2	South 2nd Ave	Haines Highway to Ft Seward Dr	1400
PURPLE	SHANNON	CAT950H	2	Ed Shirley	2nd Avenue to 3rd Avenue	380
PURPLE	SHANNON	CAT950H	2	Portage Street	Ft Seward Drive to Beach Road	660
PURPLE	SHANNON	CAT950H	2	Blacksmith Street	Unknown Road to Beach Road	365
PURPLE	SHANNON	CAT950H	2	Totem Road	Ft Seward Drive to Beach Road	660
PURPLE	SHANNON	CAT950H	2	Bartlett Blvd	Mud Bay Road to End	330
PURPLE	SHANNON	CAT950H	2	Battle Road	FAA to Tower	810
PURPLE	SHANNON	CAT950H	2	New Hart Street	Old Hart Street to End	610
PURPLE	SHANNON	CAT950H	2	Matrix Drive	Old Hart Road to Both Ends	800
PURPLE	SHANNON	CAT950H	2	Deishu Drive	3rd Avenue to 3rd Avenue	1050

**Haines Borough
2022 - 2023 Snow Plowing**

Snow Route	Operator	Machine	Priority	Route Priority List Road Name	Description	Length, FT
PURPLE	SHANNON	CAT950H	3	Public Safety Building	Parking Area	Parking
RED	WES	CAT950M	2	Lynnview Drive	View Street to Young	950
RED	WES	CAT950M	2	4th Ave	Union to St James Place Trailer Court	1000
RED	WES	CAT950M	2	N 1st Ave	Union to Lutak	1320
RED	WES	CAT950M	2	W Oslund	Young Road to End	300
RED	WES	CAT950M	2	E Barnett Drive	Young to end	1200
RED	WES	CAT950M	2	W Mathias	Young to end	200
RED	WES	CAT950M	2	E Mathias	Young to end	385
RED	WES	CAT950M	2	Helms Loop	Allen Road to Allen Road	990
RED	WES	CAT950M	3	Port Chilkoot Harbor	Parking Area	Parking
RED	WES	CAT950M	3	Alleys	Downtown Area	
YELLOW	ELLIOT	CAT160	1	FAA Road	Mud Bay Road to End	5230
YELLOW	ELLIOT	CAT160	1	3rd Avenue	Haines Highway to Mud Bay Road	2000
YELLOW	ELLIOT	CAT160	2	Chilkoot Loop	Chilkoot St to Chilkoot St	1290
YELLOW	ELLIOT	CAT160	2	Chilkoot Street	East Fair Drive to End	1170
YELLOW	ELLIOT	CAT160	2	Chilkoot Court	Chilkoot Street to End	230
YELLOW	ELLIOT	CAT160	2	Beach Road	End of State Maintenance to End of Road	3960
YELLOW	ELLIOT	CAT160	2	Gruening Drive	Mud Bay Road to Major Road	1280
YELLOW	ELLIOT	CAT160	2	Major Road	3rd Avenue to End	1750
YELLOW	ELLIOT	CAT160	2	Jones Point Road	Haines Highway to End	1670
YELLOW	ELLIOT	CAT160	2	West Fair Drive	Haines Highway to End	1780
YELLOW	ELLIOT	CAT160	2	East Fair Drive	Haines Highway to West Fair Drive	2260
YELLOW	ELLIOT	CAT160	2	Well Field Road	Haines Highway to End	890
YELLOW	ELLIOT	CAT160	2	N Sawmill Road	Haines Highway to End	1600
YELLOW	ELLIOT	CAT160	2	E Chestnut Drive	N Sawmill Road to End	1410
YELLOW	ELLIOT	CAT160	2	Maple	Chestnut to Comstock	430
YELLOW	ELLIOT	CAT160	2	River Rd	Mud Bay to End	1900
YELLOW	ELLIOT	CAT160	2	Raven Street	Mud Bay to End	420
YELLOW	ELLIOT	CAT160	2	Chilkat Trail Road	Mud Bay to End	1540
YELLOW	ELLIOT	CAT160	2	Mt Riley Road	FAA Road to End	4600
			Contract			
CONTRACT	DIESEL DOG		2	Dolphin Street	Lutak Road to End	870

**Haines Borough
2022 - 2023 Snow Plowing**

Snow Route	Operator	Machine	Priority	Route Priority List Road Name	Description	Length, FT
CONTRACT	DIESEL DOG		2	Mink Way	Dolphin Street to End	420
CONTRACT	DIESEL DOG		2	Otter Avenue	Dolphin Street to End	470
CONTRACT	HAINES IND		2	Lutak Dock	Lutak Road	dock
CONTRACT	SOUTHEAST		1	School	Haines Highway	parking
CONTRACT	SOUTHEAST		2	Cathedral View	Haines Highway to End	2570
CONTRACT	SOUTHEAST		2	Hooter Lane	Cathedral View to End	1280
CONTRACT	SOUTHEAST		2	Upper Piedad	Moose Lane to End	450
CONTRACT	SOUTHEAST		2	Anway Road	Piedad to End	1410
CONTRACT	SOUTHEAST		2	Moose Lane	Piedad to End	1410
CONTRACT	SOUTHEAST		2	Sunshine Street	Piedad to End	1410
CONTRACT	SOUTHEAST		2	Vermier Street	North Sawmill to End	400
CONTRACT	SOUTHEAST		2	Chilkat Center	Theater Drive	parking

Appendix B
Winter Maintenance Road Priority Map

Coming Soon!

Appendix C
Winter Maintenance Sidewalk Priority List

Appendix D
Snow and Ice Safety Procedures

HAINES BOROUGH

SNOW AND ICE CONTROL SAFETY PROCEDURES

OPERATING INSTRUCTIONS AND PUBLIC/OPERATOR SAFETY RULES

1. SAFETY PROCEDURES

Safety is paramount during any snowstorm. The following safety rules will be observed by all equipment operators.

- A. Wear your Haines Borough Safety Vest and required PPE at all times.
- B. Be properly trained and thoroughly familiar with all equipment and materials.
- C. Make sure you're mentally and physically prepared to drive.
- D. Check your snow removal equipment prior to leaving the yard and the following:
 - 1) Perform your required pre- and post-trip inspections
 - 2) All work lights and emergency lights. Make sure the vehicle has adequate warning lights in good working order.
 - 3) Two-way radio
 - 4) Snowplow and frame for any damage or issues
 - 5) Material spreader
 - 6) Rear view mirrors
 - 7) Flags and reflectors
 - 8) Windshield wipers
 - 9) Heater and defroster
 - 10) All necessary mapping for snow and ice removal
 - 11) Liquid dispensing apparatus
- E. Report any non-working equipment to your Supervisor immediately.
- F. Use reasonable caution in operation of snow removal equipment.
- G. Drive cautiously.
- H. Use the seatbelt
- I. Utilize caution when operating in cramped quarters with parked cars on a street.
- J. Watch for pedestrians and other vehicles
- K. Know your route and any fixed objects covered by snow.
- L. Obey all traffic laws.

- M. Do not follow traffic too closely.**
 - N. Demonstrate courtesy toward other drivers and pedestrians.**
 - O. Pack cold weather gear.**
 - P. Slow down prior to turning—your plow will tend to push you where it wants to go.**
-