DISTRICT I
SNOW AND ICE CONTROL PLAN

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INTRODUCTION

Due to Nevada's geographic location, elevation, and topography, snow and ice occur in varying amounts over most of the state. Snow depths and storm frequencies vary from minimal and infrequent at the lower elevations in the south to extreme and frequent at the higher elevations in the north. Nevada's tourism-based economy places added emphasis on snow and ice control because the state's life-blood depends, to great extent, on attracting visitors to Nevada via passenger vehicles.

This plan addresses variations in conditions, such as storm intensity, duration, type of traffic, and traffic volumes. It is not intended to anticipate every condition. It is a guide that outlines methods and procedures that apply District-wide for most situations. Because every storm is different and every situation cannot be anticipated, experience of the crew should be used to modify the plan when necessary. However, any modifications of the plan should be consistent with the intent of the plan.

The District I Snow and Ice Control Plan is a part of the Statewide Snow and Ice Control Plan (Program No. 161.00). It is not intended to replace the Statewide Snow and Ice Control Plan; it provides information specific to the district and individual crews.

ORGANIZATION

The District Engineer, in conjunction with Maintenance Managers, is responsible for reviewing and modifying the Snow and Ice Control Plan annually. This yearly update is to ensure that the plan provides guidance to District staff that result in a reasonably safe level of service.

All levels of supervisory personnel are responsible for being familiar with the plan, thoroughly preparing prior to storms, and practicing good tactical procedures during storms.

All maintenance employees are responsible for ensuring that they understand procedures, are authorized to operate a particular piece of equipment before proceeding, and conduct themselves in a manner that is a credit to them as individuals as well as to NDOT.

This plan is structured as if the chain of command can always be followed. In actual practice, this is not always possible without a delay in response or a reduction in the level of service provided to the public. With snow and ice control, responsiveness is very important and should not be sacrificed for the sake of following the chain of command. Usually the chain of command can and should be followed without sacrificing the service provided to the public.

TERMINOLOGY

The following terms are used through this document:

Abrasive mixture: A mixture of sand and a deicing chemical, generally

salt. The abrasive mixture is prepared before anticipated storms.

Anti-icing: Anti-icing is the snow and ice control practice of preventing the formation or development of bonded snow and ice by timely applications of a chemical freezing-point depressant. Moderate and periodic re-applications of the chemical during the storm can continue this effect.

Bare pavement: The condition where the travel lanes are clear of loose snow but may have patches of ice or snow pack that, when treated with chemicals or abrasive mixtures or a combination thereof, may be negotiated safely by the average driver without the need of chains.

Chain or snow tire controls: A mandatory condition where either chains or snow tires are required due to snow or ice on the roadway. Chains or snow tire requirements are placed when, in the judgment of the maintenance supervisor on duty, snow and ice conditions make it difficult for average drivers to control their vehicle when driving in a prudent manner.

Cornice: Overhanging snow forming a partial arch created by the wind.

Crossovers: Turn-through area constructed to allow official vehicles to cross from one side of a divided highway to the opposite side.

Cutting pack: Peeling ice or snow buildup from the pavement, usually done with motor graders.

De-icing: The removal of snow and ice through mechanical and/or chemical means.

End of storm: The condition when the snowstorm or blowing snow is subsiding and the weather is starting to clear.

Heeling: Pushing snow as far left or right as possible.

Pack: A buildup of ice and snow on the road surface.

Pre-op: The pre-operational check is a list of items that must be checked on each vehicle before the vehicle is used.

Run in tandem: The practice of multiple plow units plowing as a team. On non-divided highways, the lead plow starts at the centerline and plows to the right and the following plows also push snow to the right. On divided highways, the lead unit plows left from the centerline and all other trucks or graders plow from the centerline right. Divided highways with narrow median areas or barrier

walls should be treated as a non-divided highway.

Sander conveyor: The chain at the bottom of the sander unit that moves the material in the sander to the spinner.

Sand spinner: The part of a sander unit that spreads the abrasive mixture. Spinner speed can be adjusted to regulate how wide material is spread.

Scheduled shift: A specific time period an employee is assigned to work, usually over a number of days. The shift may be any length of time from 8 to 12 hours but may be extended to 16 hours in emergency situations. A callout on overtime responding to a specific need is not a scheduled shift. An employee is normally assigned a shift prior to the end of the previous shift.

Slobbers: The snow left on the pavement, after a snow plow or rotary plow has made a pass.

Snow poles: An extension of pipe (plastic, metal, or wood) used to guide snow removal equipment and the public during and after storms. The pole can have one or more reflective stripes at the top to convey information to maintenance personnel.

Spreader calibration: The procedure of calculating the pounds of material discharged per mile at various truck speeds.

White out: A complete lack of visibility due to a snowstorm or blowing snow.

Widening: Pushing snow as far left or right as possible.

LIABILITIES AND PRECAUTIONS

Highway maintenance functions concern everyone. The State of Nevada, through the Department of Transportation, strives to maintain its highways in a reasonably safe condition for the traveling public. As it relates to winter maintenance, NDOT removes snow and ice and applies abrasive mixtures to the roadway to improve driving conditions for the motorist.

When NDOT receives actual notice of a hazardous condition on its highways, the Department will respond and check the alleged hazard. If a hazard exists, it should be corrected or adequate warning should be provided to the motorists.

PURPOSE AND POLICY

PURPOSE

The purpose of this plan is to define operational procedures for snow and ice control. It defines the levels of service that maintenance will strive to provide. The plan is to help the maintenance crews provide the safest roadway condition reasonably possible with the resources available. Because storms vary dramatically and occur over a variety of roadway and traffic conditions, this plan is intended to be flexible to accommodate the variety of conditions encountered. It is a guide structured to fit average conditions.

POLICY

It is the policy of District I that the orderly movement of traffic during storm conditions takes precedence over all other maintenance operations except the protection of life and property. The District's maintenance organization will strive to maintain the state's highways in such condition that traffic can proceed in a reasonably safe manner during winter storms.

SNOW PLAN DEVELOPMENT

This snow plan was developed to provide guidance to managers and crews in describing snow and ice control responsibilities. The following items in the snow plan will be reviewed and updated annually:

- Administrative data including names, addresses, and telephone numbers of regular and seasonal personnel
- Crew and shift assignments
- Equipment available for each section
- Map or listing of highway levels of service and priorities
- Emergency and road closures procedures
- Prearranged snow storage sites

FIELD OPERATIONS AND TRAINING

District Administration and Maintenance Managers shall make advance preparations so that the snow removal operations are ready prior to the first storm. District Administration should review snow removal plans with appropriate members of the NHP. Teamwork and cooperation are essential for successful snow removal operations.

The Maintenance Supervisor I should prepare shift schedules for regularly assigned crews, with any temporary or part-time employees included in the schedules. They should review their assigned personnel and make certain all maintenance workers have or will receive any necessary training

before the first storm. All maintenance workers who operate snowplows must have a Class A or B commercial drivers license and be certified in accordance with NDOT TP 1-6-19.

Temporary employees should be hired with enough lead time to ensure they receive all necessary training. They must have a Class A or B commercial drivers license and be certified on snow removal equipment in accordance with NDOT TP 1-6-19. Training should include a review of this plan.

PREPARATION AND ADVANCE PLANNING

Early plans should be made for winter work so that the roadway, equipment operators, snow plowing equipment, sanding equipment, radio equipment, sanding materials and supplies, including signs, flags, barricades, and small tools will all be ready for the first frost or snow storm.

Pre-season preparations for snow and ice control operations should normally be completed by November 1 of each winter season and should include but not be limited to the following:

- Snow plan review and modification
- Materials acquisition and stockpiling
- Equipment operator training
- Roadway preparation
- Equipment preparation and adjustment
- Request temporary help if necessary and schedule shifts

PUBLIC RELATIONS

To a large extent, success of the snow and ice control program is dependent on how well other agencies and the public understand the program. In order to ensure that a good understanding exists, District Administration should keep other agencies and the public well informed. Both formal and informal meetings with law enforcement agencies and other maintenance organizations are effective. Cooperation and informing the news media can take several forms. Press releases and being available for interviews are effective as is allowing the media to ride in plow trucks during severe storms. Arrangements for riding in plow trucks should be made through District Administration.

All news media contacts must be reported to the district as soon as possible after the contact. Department policy requires the district to notify the director's office

of news media contacts by telephone followed by a completed "Media Contact Form".

WEATHER FORECASTS

Because weather forecasts play such an important role in winter maintenance activities, the National Weather Service Web site can be reviewed to provide updated forecasts. Other contracted weather services can provide more tailored forecasts to directly fit department needs. Timely forecasts can provide reasonably accurate predictions on:

- Timing when a storm will hit a specific area
- Type of storm predicted (snow, rain, winds, etc.)
- Intensity and amount of snow or rain
- Temperature pattern of the storm
- General progress of the storm
- Elevations that will be affected

Timely forecasts can also be helpful in scheduling employees and equipment.

In addition to weather forecasts, supervisors should pay special attention to pavement temperatures, RWIS data, and the direction that the pavement temperatures are trending, whether they are rising or dropping.

This information should be used for scheduling crews prior to a storm's arrival. Proper use of this information results in less overtime and better utilization of resources. At the beginning of each season, arrangements should be made with the National Weather Service concerning timing of calls, special information, and individuals to contact.

CHAIN OR SNOW TIRE REQUIREMENTS

"Chains or Snow Tires Required" signs are posted when, in the judgment of the supervisor on duty, snow or ice conditions exist that make it difficult for the average driver to control a vehicle.

In areas of little or infrequent snowfall, particularly in the Las Vegas urban area, posting chain or snow tire restrictions for safe travel may not be reasonable for the average-equipped driver. In those areas known as potential problem sites, plans for road closure may be noted in the crew level plan.

EMERGENCIES

OPERATIONS

The Maintenance Supervisor I shall notify the Maintenance Supervisor II whenever it becomes apparent that he will be unable to keep his highways open without help. The Maintenance Supervisor II will arrange to send supplementary equipment and work force as available for temporary assistance. The Maintenance Manager should be contacted for possible assistance from other areas if the Maintenance Supervisor II does not have adequate resources in his area. If help is not available and it becomes necessary to close a road, the District I Traffic Operations Center shall be notified.

PROCEDURES

Any situation posing an immediate hazard for personal injury or property damage should be treated as an emergency. During the winter, situations such as traffic accidents, hazardous material spills, and abandoned vehicles become more critical due to storms and adverse road conditions. In addition, accumulating snow or ice, as well as poor visibility, during storms presents increased potential for emergencies.

REQUESTING REMOVAL OF VEHICLE FROM RIGHT-OF-WAY

NDOT maintenance employees can request removal of private vehicles from the roadway. Nevada Revised Statutes (NRS) authorize the NHP to have vehicles towed from the highway right-of-way.

- NRS 487.281: States that a person shall not abandon a vehicle upon any public highway or road.
- NRS 484.397: Authorizes police officers to remove certain vehicles in certain circumstances. When a vehicle is unattended or disabled, an officer can immediately have it towed if it is an obstruction to traffic or it interferes with the normal flow of traffic. This law also provides for the towing of vehicles that have been abandoned for 24 hours on any freeway, US route, or primary arterial. On other routes, vehicles can be towed after 72 hours.

Any NDOT employee can call Road Operations and request the tow of a vehicle based on one of the following criteria:

1. The abandoned or disabled vehicle is encroaching into the travel lane (includes a vehicle parked on the edge line).

2. A disabled or abandoned vehicle is parked on or under a bridge structure, in close proximity to the tunnels, or otherwise looks suspicious.
3. Employees are **actively** plowing snow and a vehicle is left where it could be damaged by snow removal operations or is hampering our ability to clear the roadway of snow and ice.

Approval of a Maintenance Supervisor II or higher is required for requesting a tow for the following:

1. A winter storm is predicted and an abandoned vehicle is expected to pose a problem for snow removal operations.
2. A vehicle has been parked in the right-of-way for over 24 hours on a major route or over 72 hours on a secondary route.

MATERIALS

ACQUISITION

Maintenance Supervisors I and II should review material needs to ensure that required materials for the snow removal operations are either delivered or will be delivered in sufficient quantities and at appropriate times to ensure that adequate material will be available for each storm.

In May of each year, a list of stockpile locations and quantities of abrasive mixtures and de-icing chemicals should be prepared by the Maintenance Manager from input received from the Maintenance Supervisor IIs. These requests are processed by the Headquarters Maintenance Office and the Equipment Division for forwarding to State Purchasing. State Purchasing proceeds with advertising and awarding contracts for the materials requested.

Upon receipt of the listing containing the successful material suppliers, orders are placed with the low bidders for the necessary materials.

STORAGE

Proper location of stockpiles is critical to an efficient snow removal operation. The location of stockpile sites should minimize nonproductive travel time and be situated to maximize use by multiple crews. Stockpile sites should be located to minimize possible environmental damage and not create a nuisance to adjoining properties. Stockpiles must be located in areas where there is suitable access off and on the highway for NDOT vehicles. Salt or

abrasive mixtures should be stored in storage buildings wherever possible. When buildings are not available, extra attention should be given to drainage and prohibiting salt from migrating into watercourses or impacting the environment.

SECIFICATIONS

SAND

Sand for snow and ice control shall meet Specification D for de-icing sand. Specification B may be substituted for Specification D material in some areas of the District.

Sieve Size	Specification D % by Weight Passing Sieve	Specification B % by Weight Passing Sieve
No. 4	93-100	90-100
No. 8	40-80	---
No. 16	15-60	35-75
No. 50	0-20	---
No. 100	0-4	---
No. 200	0-2.5	0-3

Hardness/durability index must be greater than 75.

As sand is delivered, it should be tested in conformance with the NDOT Standard Specifications for Road and Bridge Construction to ensure it meets specifications before accepting or using any of the material. Testing should be performed every 1,000 tons for quality assurance purposes.

SALT

De-icing salt shall meet the specifications as set forth in the annual open-term contract (OTC) or bid specifications.

LOW-MOISTURE MINERALIZED DE-ICERS

A mineralized de-icing product is now available to be purchased on OTC. This product is a chloride-based mineral material that works at lower temperatures than normal sodium chloride. It is applied to the roadway via the truck sander, just like salt-sand mixes.

Mineralized de-icers have been shown to be advantageous when temperatures fall below the working range of sodium chloride. With this product, acceptable de-icing has been achieved with pavement temperatures as low as 5°F. This de-icing product is also especially helpful in urban areas where air

quality and dust caused from sand application are issues of concern.

De-icer materials shall meet the specifications as set forth in the annual OTC or bid specifications.

ANTI-ICING PRODUCTS

Anti-icing materials are available that may provide an improved level of service or result in less environmental damage.

Anti-icing materials shall meet the specifications as set forth in the annual OTC or bid specifications.

SNOW POLES

Refer to the Maintenance Management System Manual of Instructions or the MMS System for the list of standard materials/supplies used for this task.
Snow poles should be of an approved type with one to three bands of blue, white or orange reflective sheeting for delineation. In some areas it may be necessary to use longer markers. Reflective sheeting should be attached in a pattern which conforms to the District Snow and Ice Control Plan.

PROTECTING RAISED PAVEMENT MARKINGS

Raised pavement markers are used on high volume routes in areas that experience infrequent, light snowfall. Since the raised pavement markings are placed for increased visibility and are very expensive, extreme care must be exercised while plowing so they are not damaged. In order to protect the raised pavement markings from damage, emphasis should be placed on applying abrasives before snow begins to stick to the pavement. Use of abrasives to melt the snow before it begins to accumulate is preferred over plowing. If plowing is needed, it should be next to centerlines or edge markings without allowing the plow to hit the raised pavement markings. Unfortunately this leaves an accumulation of snow along the lane lines but it protects the markings from damage and costly replacement.

ANTI-ICING AND DE-ICING

ANTI-ICING

Anti-icing is defined as the snow and ice control practice of preventing the formation or development of bonded snow and ice by timely applications of a chemical freezing-point depressant. District I typically uses a 23% solution of sodium chloride in its

anti-icing efforts. Considerations in determining application rates should include the following:

- Pavement surface texture
- Bridges, tunnels, and shaded areas
- Predicted temperature, humidity, and storm conditions

Observed residual chemical on the roadway from previous applications should also be a factor in the decision process.

Applicators should shut off spraying in advance of intersections and halfway down freeway off ramps in order to keep traffic from over tracking the material into the intersection and creating a possible slick condition.

Speeds when applying anti-icers should not exceed 45 MPH. Applicators should restrict spray to one lane at a time.

It is industry practice to apply anti-icing chemicals well into the storm, except when conditions of hard snow or ice pack exist. Supervisors should evaluate the effectiveness of this practice and use their best judgment when determining the usefulness of this course of action.

APPLICATION OF LIQUID ANTI-ICERS AND DE-ICERS

NDOT uses a self-contained tanker unit with a pump to apply anti-icing chemical to the roadway.

The purpose of spreading an anti-icing material for winter road maintenance is to maintain an orderly flow of traffic during adverse weather conditions and to ensure that the road is as safe as possible under the circumstances. Application rates of anti-icing chemical depend on surface conditions of pavement, anticipated winter storm conditions, and observed residual chemical left on the roadway from previous applications. Anti-icing chemicals are used to:

- Prevent the formation of a bond between the snow pack and the road surface
- Melt fresh snow as it falls
- Melt compacted snow that remains after plowing
- Retard the formation of ice

Operators should maintain speeds that do not endanger life or property but provide a reasonably prompt service. An appropriate speed for rural low-volume road with 2 inches of loose snow is considerably different than an appropriate speed for a busy urban street with an ice

pack. **OPERATORS SHOULD NEVER EXCEED A SPEED THAT IS SAFE FOR CONDITIONS.**

The initial application should be made prior to the predicted winter storm event. The mixture is brine that, under most conditions, will keep snow or ice from bonding to the pavement. Subsequent applications will usually keep the snow in a mealy condition and prevent a pack from forming.

When the slush begins to stiffen, it is time to plow and reapply additional de-icing material.

Anti-icing chemical application is generally necessary on bridges long before road surfaces. Because cold air reaches the top and bottom surfaces of a bridge, they cool off much faster than the remainder of the roadway surface. Because of low temperatures and high humidity, bridge decks may ice up when there is little or no precipitation.

Equipment used for hauling or handling these chemicals should be washed as soon as possible after each storm to prevent corrosion. Washing should not be done where runoff could affect watercourses or impact the environment. NDOT wash racks should be used where available.

When applying anti-/de-icing chemicals, operators must pay close attention to traffic and, if necessary, shut off the nozzles to keep from spraying motorists' vehicles.

ABRASIVE MIXTURES

MIXING

When practical, abrasive mixtures should be mixed and placed in the stockpiles prior to November 1. Materials mixed after this date will potentially contain excessive moisture and present more handling problems than material that is mixed before winter storms. The salt to sand mix ratio can vary, depending on each sub-district's needs.

APPLICATION

Abrasive mixtures shall only be applied as necessary and when roadway conditions indicate satisfactory results will occur. Snow removal and abrasive mixture application shall be closely monitored to prevent loss of abrasive mixtures by plowing.

Spinner speed settings are critical. A spinner that revolves too fast will throw material over an excessively wide area, which has two detrimental effects: it wastes material, and material that is cast too wide may damage vehicles behind the sand

truck or in the adjacent lane. Two methods are available for reducing the distance that the spinner casts material: reducing the speed of the spinner and adjusting the deflectors on the spinner. Truck speed should not exceed 35 MPH when applying abrasive mixtures to the roadway.

A strong wind blowing across a street or highway can cause the abrasive mixture to drift as it comes out of the spreader unit, pushing it onto a shoulder or into a gutter. Operators need to be aware of these situations and "play the wind" to place the abrasive mixture where it will do the most good.

Plowing and sanding operations should be timed to allow the abrasive mixture to be effective. Plowing the abrasive mixture off the pavement before it is effective wastes material and increases the cost of snow removal. Knowing when to plow and reapply the abrasive mixture is an important factor that the operators should be aware of. Watching the snow that is being kicked out behind the vehicle tires will give the operator a good idea when to plow and reapply the abrasive mixture.

When applying abrasive mixtures in tandem, adequate distance should be maintained between trucks to allow traffic to pass the abrasive mixture application operation. Operators will pay close attention to oncoming traffic and shut off or reduce spinner speed so as not to cast the abrasive mixtures toward the motorists' vehicles, thereby damaging them from the abrasive mixtures being distributed.

EQUIPMENT

GENERAL

In addition to the routine equipment operation training, employees will be trained on the use of ground speed-oriented sander controls. Operational use of the controls will be stressed so the rate of application of material will be consistent even when the speed of the sander truck varies.

PREPARATION AND ADJUSTMENT

Maintenance Supervisors I and II should review the list of available equipment to determine what plows or sanders are available and what condition they are in. Ground-speed–controlled sanders and anti-icing units should be calibrated. Equipment needing repairs should be referred to the repair shop in priority order. Communication equipment should be reviewed to ensure it is in good condition.

CARE AND OPERATION

Maintenance personnel shall check their assigned equipment at the beginning of each shift. Equipment shall be inspected, lubricated, and serviced at the end of each storm. The items listed below should be checked at the beginning or end of the shift.

PERSONAL EQUIPMENT

Because of varied and unpredictable circumstances that occur during the winter season, each employee should have the following personal equipment with them when they begin their shift

SNOW PLOWING

GENERAL

Snowplows should not leave the paved portion of the roadway and plow unpaved shoulders in order to widen out plowed areas. If drifts need to be pushed back, it should be done only with loaders, motor graders.

Plow operators also will be cautioned about plowing snow at bridges and overpasses. They should reduce plowing speed so snow will not be thrown over the sides of the structures.

PLOWING WITH PUSH PLOWS

Because plows are throwing snow with roadway debris mixed in with the snow, truck-operating speed is very important. Operators should maintain a speed that does not endanger life or property but provides a reasonably prompt service. An appropriate speed for a low-volume rural road with 2 inches of loose snow is considerably different than an appropriate speed for a busy urban street covered with 4 inches of chunky slush.

Speeds should be further reduced to eliminate the possibility of causing damage to signs, vehicles, or other facilities along the highway. When plowing on bridges, speed should be decreased so that snow or ice is not pushed over the side of the structure onto traffic or pedestrians below. **OPERATIONS SHOULD NEVER EXCEED A SPEED THAT IS SAFE FOR CONDITIONS.**

Trucks with plow mounted will operate with overhead warning light **on**, due to the vehicle being over width. Rear warning lights should only be used while spreading material or in times of low visibility.

Under normal circumstances, snow removal equipment should not be operated against opposing traffic

unless traffic is restricted from the area under a traffic control plan. When plowing on a **two-lane highway,** always plow starting at the center of the roadway and plow to the right.

When plowing on a **four-lane highway,** if possible, plow in tandem. On **non-divided highways or divided highways with narrow medians or barrier rails,** the lead plow starts at centerline and plows to the right. The following plow also plows right.

On **divided highways with medians wide enough to accommodate snow storage,** the lead plow starts on the left and plows left. The following plow overlaps the first plow's cut and plows right. Any additional plows also plow right.

When plowing in the city **where there is a curb, gutter, and sidewalk,** plowing to the right should be done very carefully so that additional snow is not stacked on the sidewalk. In some cases, depending on anticipated accumulation, it may be necessary to plow all snow to the center of the roadway and come back later to remove it. Before plowing to the center of the street, it is necessary that the operator check with his/her supervisor.

Normally when plowing in tandem, adequate distance should be maintained between trucks to allow traffic to pass the plowing operation.

PLOWING WITH WING PLOWS

Wing plows offer dramatically increased productivity from a single truck and operator. However, special considerations and training need to be exercised when plowing with a wing plow.

Wing plows should never be used to plow up against guardrail sections. No one should operate a wing plow without being fully trained in the proper uses and precautions necessary to use them safely and effectively.

Rules for wing plow operation are as follows:

- The maximum speed of a snowplow equipped with a wing plow is 35 MPH while plowing and 55 MPH or lower when raised.
- Inspection of the plow blades and plow pins must be made periodically throughout the shift.
- Safety warning lights will be operational whenever the snowplows are attached to the truck.

- Under no circumstances will the main snowplow be used to plow snow to the left and the wing plow to the right.
- When the snowplow is parked, the main plow will be lowered to the ground with the wing plow in the stowed secured position. Make sure there is enough clearance when lowering the wing plow.
- If the visibility is poor or the situation seems unsafe, do not use the wing plow.
- Be sure of your clearance.
- Do not use wing plows on narrow summits or sections of road where guardrail has been installed.

PLOWING WITH ROTARY PLOWS

When operating rotary plows, consideration should be given to the following items:

- Do not blow snow across travel lanes unless no other acceptable alternative exists. When blowing snow across travel lanes, be alert for traffic and shut down the mill when possible for traffic.

- Do not blow snow into avalanche or high-wind-drift areas.

- Be aware of roadside objects (signs, houses, parked cars, power lines, and other utilities) and take appropriate steps to prevent damage from blowing snow.
- If possible, rotary plowing should be performed when traffic is light.

SPECIAL PLOWING AND SPREADING CONSIDERATIONS

BRIDGES AND OVERPASSES

As the cold air reaches both the top and bottom surfaces of bridges and overpasses, they will tend to freeze up long before the road surfaces. Because of this occurrence, they should receive early and continued attention throughout the storm. Bridge decks may ice up or frost over even when there is no precipitation and will need to be treated with abrasive mixtures. Operators may need to increase application rates if conditions are found to require more abrasive mixtures or chemicals.

Plow operators should reduce their speed when plowing snow on a bridge so that snow and chunks of ice will not be thrown over the sides of the bridge, which could cause considerable damage to anything below the bridge. Areas such as

bridges and overpasses require special consideration. Bridge joints can cause damage to plows if they are struck; extra caution should be used when crossing them.

RAILROAD CROSSINGS

Before crossing the tracks, snowplows shall come to a stop and adjust the plow to clear any obstructions and then carefully cross the tracks before resuming regular plowing. No windrow of snow should be left on railroad grade crossings. When removing snow from railroad grade crossings, care should be taken to ensure that ice, snow, abrasive mixtures, or other material is not deposited and left on the railroad tracks. This procedure will help prevent serious damage to the tracks and plowing equipment.

CATTLE GUARDS

When plowing across cattle guards, precautions should be taken to ensure that ice or snow is not allowed to build up on the approach to the cattle guard, the cattle guard, or the exit from the cattle guard. Before crossing a cattle guard, snowplows should stop 5 to 10 feet prior to the cattle guard, raise plow 2 to 3 inches, and then carefully plow across the cattle guard.

WIDENING AND CLEANUP

As soon as possible after a storm, the crew will concentrate on widening shoulders and other areas where snow may be stored during subsequent storms. Driveways and mailbox turnouts that might have been plugged by earlier snow removal activities will also be cleared.

WHITE OUT CONDITIONS

During white out conditions, the employee must make a sound judgmental decision whether the cause of the white out is due to a heavy winter storm or surface conditions (e.g. – ground blizzard).

If it is determined that a ground blizzard is the cause and is in an area known to produce this type of condition for a short distance up to ½ mile, the employee should make an attempt to continue through the known area in a safe manner. Should the known area be of a distance greater than ½ mile, the employee should proceed as if in a heavy winter storm event.

If a heavy winter storm has caused the condition of visibility to be minimized to a distance of 100 ft or less, the employee may find a safe area to pull off of the roadway (e.g. – Interstate on / off ramp) and using

good judgment, allow minimal time for the conditions to improve. If it is not possible to find a safe place to get off of the roadway, the operator should apply an adequate amount of sand before coming to a stop. This should aid traffic in slowing and being able to stop. Should either of the two events occur, the employee must notify Traffic Operations Center and their immediate Supervisor. It is suggested that plowing in tandem in these conditions may aide in the ability to overcome the situation and continue on, as in most cases the rear plow driver usually has better visibility and may assist the lead plow driver.

CLEANING DRAINAGE STRUCTURES

Drainage structures should be pre-marked before the winter season so they can be located during and after storms. It is important that roadway drains and drop inlets be kept open to allow melting ice and snow to run off the roadway. Accumulations of water with falling temperatures may cause inlets to freeze, thus causing an additional hazard to the traffic.

Maintenance employees should be aware of drainage facilities and should make sure they are open to eliminate areas of water accumulating or water running across the roadway. Water from melted snow can create a greater hazard than the original storm, especially if it freezes.

SNOW STORAGE AND DISPOSAL

The usual method of snow storage is to push the snow off the roadway or onto a median area. Snow storage, especially in the metropolitan areas, is a serious problem during periods of heavy snow accumulation. Consideration should be given to reviewing areas for snow storage at the beginning of each winter season.

District management and field personnel should agree upon sites where snow can be disposed of if it has to be hauled from the roadway. In establishing stockpile areas, right-of-way personnel may need to be contacted to determine limits and any special conditions that may exist. Before stockpiling snow on private property, an agreement delineating all conditions and responsibilities must be executed. Because of the chemicals used in snow and ice removal activities, locations of snow storage areas should be evaluated for possible environmental conflicts.

In areas where the snow cannot be blown or plowed off the roadway and there is sufficient roadway width, snow may be plowed to the center of the roadway for later removal. When

plowing snow to the center of the roadway, consideration must be given to providing openings for left-turn and cross-traffic.

Two methods of clearing snow windrows from the center of the roadway will be permitted:

1. Material may be hauled from the center of the roadway to pre-designated storage or disposal areas. When practical, hauling should be done at night due to reduced traffic volumes.
2. If temperatures warm sufficiently to promote melting after a storm subside, the windrows may be re-spread as a thin layer on the traveled way and allowed to melt and dissipate during the daytime. Pavement temperatures should be watched closely during these operations.

Private property owners may clear the snow from driveways within the right-of-way and deposit the snow on the right-of-way not being used by vehicles or pedestrians. No snow from other portions of private property shall be deposited on the right-of-way.

TRAFFIC CONTROL

Traffic control during the winter season has to be emphasized and given a high priority to protect the maintenance workers as well as provide safe passage for the traveling public on the facility. Because of a variety of climatic conditions (i.e., snow, rain, blowing snow, blowing dust, icy and snow packed roadways, etc.), it is more difficult for the maintenance employees to immediately have all the required signs that would normally be used for road closures, lane closures, etc.

Maintenance personnel must always be alert to the conditions and use other items that are immediately available to warn the traveling public of any incident that would cause them to deviate from their normal course of travel. Most incidents during the winter are temporary in nature, and maintenance workers can use the following devices to warn the public:

- Flares or red warning triangles
- Advance warning vehicle (a truck with warning lights in advance of the incident)
- A barrier vehicle (an unoccupied truck parked in advance of the incident, with warning lights)

The Maintenance Supervisor I should give each employee as much advance notice as possible of shift changes to avoid unnecessarily fatigued employees.

ROAD CLOSURES

Road closures due to floods, blowing snow, and dust usually occur at predictable locations. New maintenance employees should be made aware of these areas so they will be informed and be in a better position to handle an emergency should one arise. In locations where storms or other conditions may be expected to disrupt traffic, emergency signs and barricades should be on hand and possible detour routes should be investigated at the beginning of each winter season

RADIO PROCEDURES

During the winter months, maintenance personnel rely on the two-way radio communications system extensively. With the many calls for abrasive mixtures and assistance to specific areas, disabled vehicles, etc., the two-way radio is the most efficient way to communicate with other workers and the Traffic Operations Center.

LEVEL OF SERVICE

The District's snow and ice control operations are limited by resources (budget limitations on personnel, equipment and materials) available for winter maintenance operations. Due to these limited resources, five levels of service have been established for the district's snow and ice plan.

Factors considered when establishing the level of service for a specific route include:

- Safety.
- Average daily traffic (ADT).
- Commuter routes.
- Availability of alternative routes.
- Public interest and concern.
- Potential economic impact.
- Consequence of not providing a higher level of service.
- Available resources.

Level of Service 'A'

Snow should be removed continuously and abrasives should be

used as needed during a storm to keep the roads open for traffic and provide a good surface on which to operate. When visibility or avalanche danger makes conditions too hazardous for safe plowing or abrasive application, operations will cease until conditions improve. When these conditions occur, the road should be closed to traffic. After the storm has subsided, snow will be removed and abrasives applied until a bare pavement condition exists. Patrols will be established for those areas where conditions require surveillance of the roadway for ice, rocks, avalanche or snow.

An abrasive mixture should be applied when conditions warrant.

Level of Service 'B'

This level is the same as "A" except when personnel and equipment are not sufficient to maintain an "A" level of service for both "A" and "B" routes, then "A" routes take precedence. This may require shifting personnel from "B" routes in one section to "A" routes in another section. Level of Service "B" routes may experience longer periods of snow pack and chain or snow tire requirements while the "A" routes are being maintained.

Level of Service 'C'

Snow should be removed during storms to keep roads open for traffic. Once a roadway is open and critical areas are sanded, snowpack left by truck plows will be removed only on scheduled shifts. Patrols may be used for applying abrasives to selected areas and where conditions require checking for ice, rocks, avalanche or snow.

Level of Service 'D'

Snow should be removed only during scheduled shifts, except some routes that may be plowed on overtime when the District Engineer determines there is sufficient reason for plowing. These routes may be allowed to close during moderate-to-heavy snowstorms.

Roads allowed to close temporarily will be reopened after the storm and during scheduled shifts as personnel and equipment become available. Once open, the road should be treated with an abrasive mixture as deemed necessary by the supervisor.

Level of Service 'E'

These routes are allowed to close during the winter and are reopened in the spring when the likelihood of a major storm has been reduced. Currently there are no routes in any

of the 3 Districts assigned a level of service classification "E."

DISTRICT I CREWS

The Las Vegas maintenance area includes the following crews:

Crew 122 Alamo
Crew 151 Las Vegas
Crew 124 Glendale
Crew 152 Las Vegas
Crew 126 Mountain Springs
Crew 153 Las Vegas
Crew 127 Searchlight
Crew 154 Las Vegas
Crew 129 Mount Charleston
Crew 157 Las Vegas
Crew 150 Las Vegas
Crew 178 Panaca

The Tonopah maintenance area includes the following crews:

Crew 123 Beatty
Crew 173 Blue Jay
Crew 170 Tonopah
Crew 175 Goldfield
Crew 171 Tonopah
Crew 176 Mina
Crew 172 Big Smoky
Crew 177 Montgomery

LAS VEGAS MAINTENANCE AREA

Las Vegas Maintenance Area - Level of Service 'A' Routes

Route	Crew	Description
I-15	124, 151, 152	From the Nevada/California state line to the Nevada/Arizona state line
I-215	153	From I-15 eastward toward Henderson.
SR-171	153	Airport connector from I-215 to tunnel.
US-95	150, 151	(I-515/Expressway) from the junction at north end of Rancho Road to the end expressway south of Henderson.
US-93	150	(Boulder Highway) from the junction of US 95 and R/R Pass to M.P. 1.61.

Las Vegas Maintenance Area - Level of Service 'B' Routes

Route	Crew	Description
US-93	124, 122, 178	From SR-604 at Garnet to the District I-III boundary at LN-WP line.
SR-582	150	From junction of US-95 and Wagon Wheel to junction of Fremont and 7th street.
US-95	127	From California/Nevada state line to the junction of US 93 at R/R Pass.
US-95	151, 129	From the junction at the north end of Rancho Road to the junction of SR-160.
SR-319	178	From the US-93 junction at Panaca to the Nevada/Utah state line.
SR-318	122	Sunnyside Road from SR-375 north 43.12 miles.
SR-160	126, 152	Pahrump Valley Road from the junction of SR-604 to US-95.
SR-157	129	Charleston Peak Road from Charleston Peak to the junction of US-95.
SR-156	129	From Ski Run to the junction of US-95.
SR-158	129	Deer Creek Road from the junction of SR-157 to the junction of SR-156.
SR-159	126, 153	Red Rock Road from SR-160 to the Red Rock Visitor Center Road.
SR-321	178	Pioche Road from US-93 southeast of Pioche to US-93 northwest of Pioche.
SR-604	151, 152	From SR-161 to the Nellis Air Force Base.

Route	Crew	Description
SR-163	127	Laughlin Road from US-95 to the Nevada/Arizona state line.
SR-169	124	From the boundary of Lake Mead Recreation Area to the Logandale/Overton Interchange.
SR-170	124	Bunkerville Road from the junction of I-15 to Junction SR-144.
SR-144	124	From the West Mesquite Interchange to the East Mesquite Interchange.

Las Vegas Maintenance Area - Level of Service 'C' Routes

Route	Crew	Description
SR-168	124	From the Glendale/Moapa Interchange to the junction at US-93.
SR-742	124	From the junction of SR-170 to Bunkerville.
SR-160	126	Pahrump Valley Road from 14.55 miles north Clark/Nye county line to US-95.
SR-372	126	From the Nevada/California state line to the junction of SR-160.
SR-146	150	From I-15 to the west boundary of the Lake Recreation Area.
SR-562	150	Sunset Road from SR-604 to SR-582.
SR-592	150	Flamingo Road from Rainbow Boulevard to the Boulder Highway.
SR-573	151	Craig Road from US-95 (expressway) to Decatur and from Donovan to Las Vegas Blvd.

Route	Crew	Description
SR-595	151, 152	Rainbow Boulevard from SR-160 (Blue Diamond Road) to Silver Stream Rd.
SR-599	151	Rancho Road from US-95 to US-95 (Tonopah Highway).
SR-602	151	Casino Center Drive from Stewart Avenue to Bonanza Road.
SR-610	151	Lamb Boulevard from the junction of SR-604 to the junction of I-15.
SR-161	152	Goodsprings Road from Goodsprings to the junction of SR-604.
SR-593	152	Tropicana Avenue from Industrial Road to the Boulder Highway.
SR-147	153	Lake Mead Boulevard from the west R/W of I-15 to the boundary of the Lake Mead Recreation Area.
SR-159	153	Charleston Blvd. from the Red Rock Visitors Center Rd. to Nellis Blvd.
SR-574	153	Cheyenne Blvd. from US-95 (expressway) to Nellis Blvd.
SR-578	153	Washington Ave. from 235' west of "D" Street to Las Vegas Blvd.
SR-579	153	Bonanza Road from Rancho Road to Las Vegas Blvd.
SR-589	153	Sahara Ave. from Rainbow Blvd. to Nellis Blvd.
SR-596	153	Jones Blvd. from Tropicana Ave. to Rancho Road.
SR-601	153	Main Street from the junction of SR-604 at Foremaster Lane to the junction

Route	Crew	Description
		of SR-604 at St. Louis.
SR-605	153	Paradise Road from Tropicana Ave. to Sahara Ave.
SR-607	153	Eastern/Civic Center from Sahara Ave. to Cheyenne Ave.
SR-612	153	Nellis Blvd. from Tropicana Ave. to Las Vegas Blvd.
SR-317	178	Elgin Road (Rainbow Canyon) from the junction of US-93 south to Elgin.
SR-320	178	Caselton Mine Road from US-93 south of Pioche to US-93 north of Pioche.
SR-322	178	Ursine Road from SR-321 in Pioche to 1 mile south of Ursine.

Las Vegas Maintenance Area - Level of Service 'D' Routes

Route	Crew	Description
SR-375	122	From Nye/Lincoln county line to SR-318 junction near Hiko.
SR-604	124, 151	5.81 miles north of Garnet Interchange to Nellis AFB.
SR-164	127	Nipton Road from Nevada/California state line to the junction of US-95.
SR-165	127	Nelson Road from the junction of US-95 to 11 miles east.
SR-604	152	From the SR-161 to SR-601.
SP-54	124	Valley of Fire State Park 10.47 miles from west boundary to east boundary.
SP-54B	124	Valley of Fire Resident Road 0.43 miles NW.
SP-55	124	Valley of Fire White Domes Road 6.93

Route	Crew	Description
		miles north to end pavement.
SP-56	124	Valley of Fire Atlatl Rock road 1.08 miles to end of pavement.
SP-52	126	Spring Mountain Ranch State Park 1.11 miles west to Visitor Center.
SP-53	151	Floyd Lamb State Park 1.56 miles southeast to end of pavement.
SP-12	178	Cathedral Gorge State Park 1.72 miles north to fee box.
SP-12B	178	Cathedral Gorge Campground Road 0.84
SP-13	178	Cathedral Gorge North Park Road 0.39 miles to parking lot.
SP-15	178	Echo Canyon State Park 1.69 miles

Route	Crew	Description
		south boundary to north boundary.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontage roads or interchange ramps have been assigned a level of service of "D".

Las Vegas Maintenance Area - Level of Service 'E' Routes

The Las Vegas maintenance area has no roads assigned as level of service "E".

LAS VEGAS MAINTENANCE AREA - CREW SNOW PLANS

Individual Snow and Ice Control Plans for crews in the Las Vegas maintenance area are included in this section. Each crew plan establishes specific procedures and emphasis areas for snow and ice removal for that crew. The crew plans augment the Statewide and District Snow and Ice Control Plans.

Crew 122 - Alamo Maintenance

Equipment and Materials

Salt/sand is routinely stored at two locations in this area. One stockpile is located at the junction of SR-375 with SR-318, the other is at the Alamo yard. Portable signs used for posting snow tire or chain restrictions along with other traffic control signs and devices are kept at the Alamo Maintenance Station.

Operations

This maintenance area receives infrequent storms with minimal snowfall. For this reason few pieces of snow removal equipment are available on site. Should this area receive a substantial storm, help may be available from crew 122 or the Las Vegas crews. Since a routine method of operation has not been established, the maintenance supervisor should organize the operation based on field conditions and available equipment and personnel.

Plowing (push plows)

During storms plows may work in tandem on both US-93 and SR-318. When these routes are cleared, plows may be sent to SR-375, while others continue to monitor the two higher levels of service routes. If the roads within this crew's jurisdiction are plowed and sanded, a portion of the crew may be available to assist crew 178 to the north and crew 124 to the south. During colder weather or after initial storm accumulations, a motor grader may be needed to cut heavy snow pack.

Priorities for Sanding

- Junction area US-93/SR-318
- SR-318 MP 24-26 (White River Narrows area)
- SR-375 (Hancock and Coyote summit areas)

Special Considerations

The Alamo Maintenance area shares its road condition recording area with crew 178 to the north and crew 124 to the south. Because of this it is important for the supervisors to work

closely in communicating their respective road or weather conditions and updating the recording as needed.

Routes and Levels of Service

Route	Service	Description
US-93	B	From the CL/LN county line to Pahrock Summit.
SR-318	B	Sunnyside Road from SR-375 north 43.12 miles.
SR-375	D	From the NY-CL county line to the SR-318 junction near Hiko.

Crew 124 - Glendale Maintenance

Operations

This maintenance area receives infrequent storms with minimal snowfall. For this reason few pieces of snow removal equipment are available on site. Should this area receive a substantial storm, help may be available from **crew 122** or the Las Vegas crews. Since a routine method of operation has not been established, the maintenance supervisor should organize the operation based on field conditions and available equipment and personnel.

Plowing (push plows)

Raised pavement markings (reflective and ceramic buttons) are used on I-15 to delineate lane lines. When plowing is required in the area of the raised pavement markings, care must be taken to avoid damaging them. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

Special Considerations

The Glendale maintenance area shares its road condition recording with **crew 122** for US-93. It is important for the supervisors to work closely in communicating their respective road or weather conditions and updating the recording as needed.

Routes and Levels of Service

Route	Service	Description
I-15	A	From the US-93 Interchange to the Nevada/Arizona state line.
US-93	B	From the SR-604, Garnet Interchange to the Clark/Lincoln County lines.
SR-169	B	From the boundary of the Lake Mead Recreation Area to the Logandale/Overton Interchange.
SR-170	B	Bunkerville Road from the junction of I-15 to the junction of SR-144.
SR-144	B	From the West Mesquite interchange to the East Mesquite interchange.

Route	Service	Description
SR-168	C	From the Glendale/Moapa Interchange to the junction of US-93.
SR-742	C	From the junction of SR-170 to Bunkerville.
SR-604	D	From the Garnet interchange to 5.81 miles north.
SP-54	AD@	Valley of Fire State Park 10.47 miles west boundary to east boundary.
SP-54B	AD@	Valley of Fire Resident Road 0.43 miles northwest.
SP-55	AD@	Valley of Fire White Domes Road 6.93 miles north to end of pavement.
SP-56	AD@	Valley of Fire Atlatl road 1.08 miles to end of pavement.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontages on ramps have been assigned a level of service "D".

Crew 126 - Mountain Springs Maintenance

Equipment and Materials

A salt/sand stockpile and loader is stationed at the Mountain Springs yard during the winter. Permanent Mount signs (on turnaround Bases) for snow tire and chain restrictions are located at the following locations on SR-160: MP 11.20, MP 17.00, MP 22.60 and MP 46.40. Traffic control signs are stored at the Mountain Springs yard.

Operations

Plowing (push plows)

The greatest area of concern for plowing is generally on both sides of the Mountain Springs Summit area. During major storms and when two plows are available they may run in tandem when plowing this area. When this area is under control one plow may be sent to SR-159 or across to Pahrump Valley as necessary.

As a result of major storms on the Mountain Springs summit area, accumulations may require the use of a loader to widen and clear the roadway through cuts or drift areas at the following locations: MP 21.30, MP 19.30, MP 18.50. This operation may also require signing and flagging. In the case of extended plowing due to major localized storms (**24-hour operations**) or for flagging set-ups, Las Vegas personnel and equipment may be made available to assist.

Raised pavement markings are used in the Pahrump area on SR-160. When plowing in this area, care must be taken to avoid damaging the markings. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

In instances of major storms in the Las Vegas area or where accumulations are experienced on I-15 to the South, this crew may be diverted to assist on the higher level of service routes.

Priorities for Sanding

Emphasis for sanding will be placed on the following areas:

- Mountain Springs Summit area especially the shaded areas
- Hills, curves and intersections

Special Considerations

The route over Mountain Springs Summit is the primary route for large numbers of commuters and traffic between Pahrump Valley and Las Vegas, so it is important to keep the

road condition recording up to date as conditions change.

The Mountain Springs Summit is forested and must be regarded as an environmentally sensitive area. Employees should be aware of the detrimental effect excess applications of salt/sand could have on this area.

Routes and Levels of Service

Route	Service	Description
SR-160	B	Pahrump Valley Road from 1 mile west of SR-604 to US-95.
SR-159	B	Red Rock Road from SR-160 to Red Rock Visitors Center Road.
SR-372	C	From the Nevada/California state line to the junction of SR-160.
SP-52	AD@	Spring Mountain Ranch State Park 1.11 miles west to Visitor Center.

Crew 127 - Searchlight Maintenance

Equipment and Materials

Sand is stockpiled in the Searchlight yard during winter storms. Portable signs for traffic control are also stored in the Searchlight yard.

Operations

Plowing (push plows)

This maintenance area often experiences minor accumulations of snow. Usual areas of priority for plowing are through Searchlight, over the summits on US-95, both sides of town and on SR-163 in the Christmas Tree Pass area. Although a lower level of service, Nelson Road and the Nipton Road (SR-164), with its higher elevations, is often the site of substantial snow accumulations.

Raised pavement markings (reflectors and ceramic buttons) are used on US-95 and on SR-163 to delineate center or lane lines. Plowing in these areas requires care to avoid these markers. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

Priorities for Sanding

- Through Searchlight
- The summits on US-95, both sides of Searchlight
- On SR-163 at Christmas Tree Pass

Special Considerations

As US 95 is a major North/South route, it is important the road condition recording be kept current as road and weather conditions change. This may also require coordination with crew 150 to the north on US 95.

Routes and Levels of Service

Route	Service	Description
US-95	B	Nevada/California state line to the junction of US-93 at R/R Pass.
SR-163	B	Laughlin Road from the junction of US-95 to the Nevada/Arizona state line.
SR-164	D	Nipton Road from the Nevada/California state line to the junction of US-95.
SR-165	D	Nelson Road from the Junction of

Route	Service	Description
		US-95 to 11 miles east.

Crew 129 - Charleston Maintenance

Equipment and Materials

Salt/sand is stockpiled and a loader is stationed at the Mt. Charleston yard during the winter. Traffic control signs are stored at the Mt. Charleston and the Indian Springs yards. Snow chains for various units are available at the Mt. Charleston yard.

Signs for snow tire or chain restrictions are mounted on permanent turn-around bases at the following locations.

- SR-156 at MP 2.50, MP 4.10, MP 7.00 and MP 10.00
- SR-157 at MP 0.90, MP 3.40, MP 4.50 and MP 8.30
- SR-158 at MP 0.30 and MP 8.60

Snow poles are used in the following locations from approximately October 1 through April 1 of each year.

- SR-156, M.P. 0-9,
- SR-157, M.P. 0-6,
- SR-158, M.P. 0-8.86.

Operations

The Mt. Charleston area receives repeated snowstorm accumulations during the winter. In some areas this may range from only inches to many feet of accumulation on drift. This area, although on a more infrequent basis, can experience snow accumulation on US-95.

In instances of major storms in the Las Vegas area, and due to the higher assigned levels of service, crew 129 may be called upon for equipment and labor to assist crews in the Las Vegas area.

When localized storms in the Mt. Charleston area require extended plowing (**24-hour operation**) or for snow blowing or flagging operations, Las Vegas personnel and equipment may be made available to assist.

Plowing (push plows)

Routine procedure is to send a plow across SR-158 to SR-156. These routes are then plowed and sanded as needed. When possible, parking areas on SR-156 are cleared in the early morning before the ski area gets busy. Simultaneously another plow works SR-157, which is the school bus and commuter route for residents of the area. In other areas of heavy accumulation, loaders are often needed to clear approaches, turn-

around or parking areas. Sometimes signing and flaggers are used for traffic control.

Should heavy snowfall occur on US-95, plowing may be necessary with emphasis on hills, curves, bridges, intersections or interchange areas such as Indian Springs or Mercury on US-95.

Plowing (rotary plows)

The following areas sometimes get accumulations that require the use of a snow blower, signing, flaggers and a snow plow/sander unit:

- SR-157 M.P. 0-1,
- SR-156 M.P. 0-1.50,
- SR-158 M.P. 3.50-5.50.

Priorities for Sanding

- Hills, curves, intersections and interchanges,
- School bus routes,
- Intersections for Indian Springs and Mercury,
- Intersection for the Angels Peak Youth Camp,
- Lee Canyon parking areas.

Special Considerations

When affected travel ways have received needed attention or as the maintenance supervisor directs, other areas may be cleared for safe public and recreational access. These include access to the U.S. Forest Service Ranger Station, and the Nevada Division of Forestry fire station at Kyle Canyon on SR-157; the Foxtail parking areas and access to the Lee Canyon ranger and fire stations on SR-156.

In the past the Department received requests to clear access on other than highway right of way, due to emergencies brought on by sudden or severe storms in this area. This is allowed only with district approval based on verification of the emergency by an appropriate agency (U.S. Forest Service, Metro PD, Nevada Power Co., NHP, etc.).

Since Mt. Charleston is forested, routes in this area must be regarded as environmentally sensitive. Employees should be aware that excess applications of salt/sand could have detrimental effects.

With US-95 being a major North/South route and due to the popularity of the Mt. Charleston Recreational Area, it is important to keep the road condition recording

accurate and up to date as conditions change.

Routes and Levels of Service

Route	Service	Description
US-95	B	From the junction of SR-157 to the junction of SR-160 at Pahrump Valley Road.
SR-156	B	From Ski Run to the junction of US-95.
SR-157	B	Charleston Peak Road from Charleston Peak to the junction of US-95.
SR-158	B	Deer Creek Road from the junction of SR-157 to the junction of SR-156.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontage or ramps have been assigned a level of service "D".

Crew 150 - Las Vegas (East Las Vegas, Henderson, Boulder City)

Equipment and Materials

Salt/sand for the Las Vegas area is stockpiled at the Erie pit, M.P. 22 on I-15. Washed concrete sand and portable traffic control signs are available in the Las Vegas yard.

Operations

The major expressway (US-95) and commuter routes from Las Vegas to Henderson and Boulder City US-93/SR-582 (Boulder Highway) experience considerable rush hour traffic, and are a high priority.

In cases of major, extended or localized storms, Las Vegas crews may be called upon to assist other crews.

Plowing (push plows)

US-93/US-95 at Railroad Pass is an area of occasional and generally minimal snowfall. This area extending south into Boulder City sometimes requires plowing.

Raised pavement markings (reflectors and ceramic buttons) are used on the majority of the roads within this jurisdiction. Plowing in these areas requires care by operators of snow removal equipment to avoid these markers. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

Priorities for Sanding

- Hills curves intersections and structures
- US-95
- US-93
- SR-582

Special Considerations

As major routes, it is important that the road condition report recording for US 95/93 be kept as current as possible.

Routes and Levels of Service

Route	Service	Description
SR-146	C	From I-15 to Lake Mead Recreation Area.
SR-562	C	Sunset Road from SR-604 to Annie Oakley and from Gibson to SR-582, (Boulder Highway).

Route	Service	Description
SR-582	B	From 7th Street to US-95/Wagon Wheel Interchange.
SR-592	C	Flamingo Road from Rainbow Boulevard to SR-582 (Boulder Highway).
US-93	AB	From 1.61 miles north of the Nevada/Arizona state line to RR Pass Intg.
US-95	A	(Expressway) from US-93/US-95 structure to SR-582.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontage or ramps have been assigned a level of service "D".

Crew 151 - Las Vegas (North Las Vegas)

Equipment and Materials

Salt/sand for the Las Vegas area is stockpiled at the Erie pit, M.P. 22 on I-15. Washed concrete sand and traffic control signs are available in the Las Vegas yard.

Operations

The Interstate and Expressway routes are the highest priority in this section. These experience continued high traffic counts with peaks during morning and evening rush hours, weekends and holidays. Having been assigned the highest level of service rating, these routes will receive continuous monitoring, plowing or sanding.

Plowing (push plows)

Raised pavement markings (reflectors and ceramic buttons) are used on the majority of the roads within this jurisdiction to delineate center or lane lines. Plowing in these areas requires care by operators of snow removal equipment to avoid the markers. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

Priorities for Sanding

- Grades, curves, bridges, ramps and intersections
- US-95 viaduct section
- Apex Summit on I-15
- Interchange and ramps at I-15/US-95
- Routes with raised pavement markings

Special Considerations

The US-95/I-515 (expressway) from Eastern Avenue to I-15, including some of the I-15 interchange ramps are of special concern due to ice or snowpack resulting from a major storm or a combination of moisture and cold. If the concrete pavement or deck surfaces experience a severe ice condition and it is not possible to maintain these areas within reasonable limits of safety, the facility may require closure. The decision to close the road should be made based on the roadway condition and the impracticability of posting chain or snow tire restrictions. In these circumstances closures may need to be maintained in the following locations:

- Eastern Avenue north bound on-ramp

- Las Vegas Boulevard north and south bound on-ramps
- Casino center north bound on-ramp
- Both I-15 south bound on-ramps

Traffic control for closures and detouring should be established south bound for US-95/I-515 at I-15 and north bound at Eastern Avenue. Traffic control may include programmable message boards, advance warning signs, arrowboards, cones etc. The Nevada Highway Patrol should be contacted for assistance in areas of closure. With both I-15 and US-95 being major North/South routes, it is important to keep the road condition report recording as accurate as possible.

Routes and Levels of Service

Route	Service	Description
I-15 (Int)	A	From the junction of US-95 (expressway) to the US-93 interchange at Garnet.
US-95 (Exp)	A	From the US-95 structure to the junction at the north end of Rancho Road.
US-95	B	From the junction at the north end of Rancho Road to SR-157.
SR-573	C	Craig Road from US-95 (expressway) to Decatur, from Donovan to Las Vegas Blvd.
SR-595	C	Rainbow Boulevard from Spring Mountain Road to Silverstream.
SR-599	C	Rancho Road from US-95 to US-95 (Tonopah Highway).
SR-602	C	Casino Center Drive from Stewart Avenue to Bonanza Road.
SR-604	AB@	From St. Louis Ave to Nellis Air force Base.

Route	Service	Description
SR-604	D	From Nellis Air Force Base to Garnet Interchange.
SR-610	C	Lamb Boulevard from the junction of SR-604 to the Junction of I-15.
SR-53	AD@	Floyd Lamb State Park 1.56 miles southeast to end of pavement.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontage roads and ramps have been assigned a level of service "D".

Crew 152 - Las Vegas (Jean, Stateline)

Equipment and Materials

Salt/sand for the Las Vegas area is stockpiled at the Erie pit, M.P. 22 on I-15. Washed concrete sand and traffic control signs are available in the Las Vegas yard.

Operations

Interstate 15 and urban Las Vegas Boulevard routes are the highest priority in this section. These experience continued high traffic counts with peaks during morning and evening rush hours, weekends and holidays. I-15 has been assigned the highest level of service rating and should receive continuous plowing, sanding or monitoring.

In cases of major, extended or localized storms, Las Vegas crews may be called upon to assist all other divisions when available.

Plowing (push plows)

Raised pavement markings (reflectors and ceramic buttons) are used on the majority of the roads within this jurisdiction to delineate center or lane lines.

Plowing in these areas requires care by operators of snow removal equipment to avoid the markers. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

Priorities for Sanding

- Tropicana Fly over
- Sahara Fly over
- Spring Mountain Road Overpass
- Grades, curves, bridges, ramps and intersections
- I-15, Erie area (M.P. 20-24)
- Interchange ramps
- Routes with raised pavement markings

Special Considerations

With I-15 being a major North/South route, it is important to keep the road condition report recording as accurate as possible.

Routes and Levels of Service

Route	Service	Description
I-15	A	From the Nevada/California state line to the

Route	Service	Description
		junction of US-95 (expressway).
SR-160	B	Pahrump Valley Road from the junction of SR-604 to 1 mile west.
SR-161	C	Goodsprings Road from Goodsprings to the Junction of SR-604.
SR-593	C	Tropicana Avenue from Industrial Road to SR-582 (Boulder Highway).
SR-595	C	Rainbow Boulevard from the Blue Diamond Road to Spring Mountain Road.
SR-604	B	From SR-146 to Spring Mountain Road.
SR-604	D	From SR-161 to SR-146.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontage roads and ramps have been assigned a level of service "D".

Crew 153 - Las Vegas (Valley)

Equipment and Materials

Salt/sand for the Las Vegas area is stockpiled at the Erie pit, M.P. 22 on I-15. Washed concrete sand and traffic control signs are available in the Las Vegas yard.

Operations

Although routes in this section have generally received a lower level of service assignment, they are some of the most heavily traveled urban surface streets in and around the Las Vegas Valley. These routes experience continued high traffic counts with peaks noted during morning and evening rush hours, weekends and holidays.

In cases of major, extended or localized storms, Las Vegas crews may be called upon to assist other crews when available.

Plowing (push plows)

Raised pavement markings (reflectors and ceramic buttons) are used on the majority of the roads within this jurisdiction to delineate center or lane lines. Plowing in these areas requires care by operators of snow removal equipment to avoid the markers. Plow operators should leave a narrow area of snow along lane lines where raised pavement markings are used.

Priorities for Sanding

- I-215/SR-171 Airport Connector
- Grades, curves, bridges, ramps and intersections
- Red Rock Road/Charleston Boulevard
- I-15 Interchange ramps
- Routes with raised pavement markings

Routes and Levels of Service

Route	Service	Description
I-215	AA@	From I-15 eastward toward Henderson.
SR-171	AA@	Airport connector from I-215 to tunnel.
SR-147	C	Lake Mead Boulevard from the west R/W of I-15 to the boundary of Lake Mead Recreation Area.

Route	Service	Description
SR-159	C	Red Rock Road/Charleston Boulevard from the Red Rock Visitors Center Road to Nellis Boulevard.
SR-574	C	Cheyenne Blvd. from US-95 (expressway) to Nellis Boulevard.
SR-578	C	Washington Avenue from 235 feet west of “D” Street to Las Vegas Boulevard.
SR-579	C	Bonanza Road from Rancho Road to Las Vegas Boulevard.
SR-589	C	Sahara Avenue from Rainbow Blvd. to Nellis Blvd.
SR-596	C	Jones Boulevard from Tropicana Avenue to Rancho Road.
SR-601	C	Main Street from the junction of SR-604 at Foremaster Lane to the junction of SR-604 at St Louis.
SR-605	C	Paradise Road from Tropicana Avenue to Sahara Avenue.
SR-607	C	Eastern/Civic Center from Sahara Avenue to Cheyenne Avenue.
SR-612	C	Nellis Boulevard from Tropicana Avenue to Las Vegas Boulevard.

Major frontage roads and interchange ramps have been assigned a level of service "C". Minor frontage or ramps have been assigned a level of service "D".

Crew 154 - Las Vegas (Night Sweep Crew)

Crew 157 - Las Vegas (Night Roadway Maintenance Crew)

These crews operate on scheduled routes throughout the Las Vegas Valley. In cases of major, extended or localized storms, they may be called upon to assist various divisions where needed to plow, sand or monitor roadways. They may also be needed in areas of road closure.

Operations

When individuals from these divisions are assigned snow removal or other related duties, they should refer to the crew plan for the specific section to which assigned.

Crew 178 - Panaca Maintenance

Equipment and Materials

Salt/sand, traffic control signs and snow chains for various units are available at the Panaca yard.

Permanent mount signs (fold down face plates) for snow tire or chain restrictions and "icy" signs are at the following locations:

- US-93 M.P. 77 and M.P. 93 (Caliente Summit area)
- US-93 M.P. 113, M.P. 120 and M.P. 148 (Pioche area)
- SR-319 M.P. 55 and M.P. 65 (Panaca Summit area)

Operations

Plowing (push plows)

This area experiences relatively frequent, repeated and sometimes-heavy snow fall. During wide spread major storms, individual plows are typically sent to the following areas: US-93 Caliente Summit area, SR-319 Panaca Summit area (two plows), US-93 North toward Geyser Ranch, US-93 Pioche area routes, with the remaining plow used in the Panaca or Caliente town areas or as needed to assist on the section.

During colder weather or after initial storm accumulations, a motor grader is often used to cut heavy snowpack or icy areas. Loaders are often necessary to clear access for removal of accumulations in the following locations: Pioche town (load and haul away), Panaca and Caliente Summit (cut or drift areas), curb, gutter, sidewalk Caliente and Panaca town areas. These operations may also require appropriate traffic control such as signing and flaggers.

Priorities for Sanding

- Grades, curves, bridges, shady areas and intersections
- Caliente Summit
- Panaca Summit
- Through Pioche, Caliente and Panaca

The Elgin road through Rainbow Canyon requires monitoring as it frequently experience rockslides during storms.

Special Considerations

This section has a number of forested areas, which must be regarded as environmentally sensitive. Employees should be aware that excess applications of salt/sand could have detrimental effects.

The Panaca maintenance area shares its road condition recording area with crew 122 to the south, so it is important that supervisors work closely in communicating their respective road or weather conditions and updating the recording.

Routes and levels of Service

Route	Service	Description
SR-317	C	Elgin Road (Rainbow Canyon) from the junction of US-93 South to Elgin.
SR-319	B	From the US-93 junction at Panaca to the Nevada/Utah state line.
SR-320	C	Caselton Mine Road from US-93 south of Pioche to US-93 north of Pioche.
SR-321	B	Pioche Road from US-93 southeast of Pioche to US-93 northwest of Pioche.
SR-322	C	Ursine Road from SR-321 in Pioche to 1 mile south of Ursine.
US-93	B	From Pahrock Summit to the District I - III boundary at the Lincoln/White Pine county line.
SP-12	AD@	Cathedral Gorge State Park 1.72 miles north to fee box.
SP-12B	AD@	Cathedral Gorge Campground Road 0.84 miles northwest to picnic area.
SP-13	AD@	Cathedral Gorge North Park Road 0.39 miles to parking lot.
SP-15	AD@	Echo Canyon State Park 1.69 miles from south boundary to north boundary.

TONOPAH MAINTENANCE AREA

Salt-Sand Materials, Stockpiles

Sand used for salt/sand, as well as the ratio of the mix is approved by the district. Quantities should be calculated in advance of winter to allow time for ordering or scheduling of delivery, hauling, mixing, etc. In some cases stockpiles may be strategically located other than at the field maintenance station. A loaner loader may be made available through the district during the winter for use in loading spreader trucks.

When plowing in the city where there is curb, gutter and sidewalk, plowing to the right should be done very carefully so that additional snow is not stacked on the sidewalk. In some cases, depending on anticipated accumulation, it may be necessary to plow all snow to the center of the roadway and come back later and remove it. Before plowing to the center of streets, it is necessary that operators check with their supervisor.

Tonopah Maintenance Area - Level of Service 'A' Routes

Route	Crew	Description
US-95	123, 170, 175, 176	From Pahrump Valley Road to Luning.
US-6	170, 177	From Tonopah to the Nevada/California state line over Montgomery Pass.
US-6	173, 171	From the District I & III boundary from 6 mi. west of Currant Creek to Tonopah.

Tonopah Maintenance Area - Level of Service 'B' Routes

Route	Crew	Description
SR-264	177	Fish Lake Valley Road from the junction of US-6 to the Nevada/California state line.

Route	Crew	Description
SR-265	170	Silver Peak Road from the junction of US-6 to Silver Peak.
SR-266	175	Lida Road from the junction of US-95 to the Nevada/California state.
SR-360	177	From the junction of US-6 to the junction of US-95.
SR-361	176	Gabbs Road from US-95 to the District I/II Boundary (Churchill county Line).
SR-373	123	Amargosa Valley @ US-95 to the Nevada/California state line.
SR-375	173	From the junction of US-6 to the Lincoln county line.
SR-376	171, 172	From the junction of US-6 to the junction of US-50.
AR-503	170	From the junction of US-6 to milepost 1.

Tonopah Maintenance Area - Level of Service 'C' Routes

Route	Crew	Description
SR-267	175	Scotty's Castle Road from the junction of US-95 to Nevada/California state line.
AR-504	171	Tonopah Test Range Road from the junction of US-6 to the test site.
SR-374	123	From Beatty to the Nevada/California state line.
SR-377	172	From the junction of SR-376 to Manhattan.
SR-378	172	From the junction of SR-376 to Round Mountain.
SR-773	177	Fish Lake Valley cutoff from the

Route	Crew	Description
		junction of US-06 to Jct. SR 264.
SR-844	176	lone Road from the junction of SR-361 to milepost 12.32.

Tonopah Maintenance Area - Level of Service 'D' Routes

Route	Crew	Description
AR-503	170	Radar Road from milepost 1 to milepost 4.75.
SR-774	175	Goldpoint Road from the junction of SR-266 to Goldpoint.
FR-401	176	From the Junction with SR-361 to its Terminus at the Basic Refractory.

Tonopah Maintenance Area - Level of Service 'E' Routes

The Tonopah maintenance area has no roads assigned as level of service "E" routes.

TONOPAH MAINTENANCE AREA - CREW SNOW PLANS

Individual snow and ice control plans for crews in the Tonopah maintenance area are included in this section. Each crew plan establishes specific procedures and emphasis areas for snow and ice removal for that crew. The crew plans augment information included in the Statewide and District Snow and Ice Control Plans.

Crew 123 - Beatty

Equipment and Materials

Beatty has three plow trucks with sanders. Salt/sand and portable traffic control signs are stored at the Beatty Maintenance Station yard.

Operations

This maintenance area receives occasional snow--priority consideration is given to US-95. Abrasives are available but are rarely needed. In the event of a major storm this crew may be used to assist crew 175 on US-95 through Goldfield provided Beatty's section is clear.

Beatty shares its road recording with Goldfield (crew 175) and Tonopah (crew 170).

Routes and Levels of Service

Route	Service	Description
US-95	A	From the junction of SR-160 at Pahrump Valley to the junction of SR-267 (Scotty's Castle Road).
US-374	C	From the junction of US-95 in Beatty to the East boundary of the Death Valley National Monument.
SR-373	B	From the junction of US-95 at Amargosa Valley to the Nevada/California state line.

Crew 170 - Tonopah Maintenance

Equipment and Materials

A large salt/sand supply plus portable traffic control signs are kept at the Tonopah yard. A second salt/sand pile is maintained at Coaldale (Jct. US-6 & US- 95) for use by crews 170, 176 and 177.

Operations

Highest priority for this division is US-6 and US-95. These highways have the highest traffic count and should receive immediate response during snowstorms. Cooperation between NDOT and local law enforcement agencies helps the crew in detecting problem areas and disseminating routine road information.

Depending on temperatures, snowfall etc., snow on Main Street in Tonopah (US-6/US-95) is treated with salt/sand and allowed to slush and melt or it is plowed to the center of the street by use of a motor grader or reversible plow. When it is plowed to the center of the street, emphasis must be placed on clearing intersections. When plowing operations subside, snow accumulated in the center of the street will be removed using a rotary plow and dump trucks, or if temperatures permit, the snow may be spread out and allowed to melt.

Priorities for Sanding

- Hills, curves and intersections
- School bus routes

Special Considerations

The two summits on the eastern and southern city limits of Tonopah will be given special attention because of their steep grades. During major storms, as labor and equipment are available, emphasis will be placed on plowing and sanding AR 503 from the junction with US-6/US-95 to M.P. 1.00 because of the elementary school and residences adjacent to the road. Beyond milepost 1 the traffic is nominal and will be attended to after the most demanding areas are cleared.

Routes and Levels of Service

Route	Service	Description
US-95	A	From Tonopah to 12 miles south of Tonopah.
US-6	A	From Tonopah North to the junction of US-6 and US-95 at Coaldale.

Route	Service	Description
SR-265	B	Silver Peak Road from the junction of US-6 to Silver Peak.
AR-503	B	From Junction of US-6 to M.P. 1 (Radar Road).
AR-503	D	From milepost 1 to M.P. 4.75 (Radar Road).

Crew 171 - Tonopah Maintenance

Equipment and Materials

This crew shares salt/sand stockpiles with crews: 170 in the Tonopah Yard, 172 at the junction of SR-376 and SR-377, and 173 on US-6 at M.P. 46.50. A large supply of portable signs and other traffic control devices are kept on hand in the Tonopah yard.

Operations

During snow storms trucks are dispatched to all three routes. The highest priority is US-6. There are three summits on US-6 and salt/sand is applied to these routes first and then to other sections of highways as required. During major storms crew 171 may be available to assist other crews.

Priorities for Sanding

- Hills, curves, and intersections
- School bus routes

Special Considerations

Peak traffic times on AR-504 are from 5:00 AM to 7:00 PM during weekdays. During these peak hours, special attention is given to snow removal efforts.

It is imperative that the supervisors of crews 171, 172 and 173 communicate with each other since they all share maintenance responsibilities on US-6 and SR-376. Crew 171 shares its road recording with crews 172 and 173.

Routes and Levels of Service

Route	Service	Description
US-06	A	From the junction of US-6 and US 95, in Tonopah, to 42.34 miles east at Warm Springs Summit.
SR-376	B	From the junction with US-6 to the junction of SR-377 (the Manhattan Road).
AR-504	C	Sandia Road from the junction with US-6 to its terminus at the Tonopah Test Range.

Crew 172 - Big Smoky Maintenance

Equipment and Materials

Salt/sand stockpiles are maintained at the following locations:

- The Big Smoky Maintenance yard
- The junction of US-50 and SR-376
- The junction of SR-376 and SR-377

The stockpile at the junction of SR-376 and SR-377 is shared with crew 171 and the stockpile at the junction of US-50 and SR- 376 is shared with the Austin Maintenance station (crew 385). Portable signs and other traffic control devices are kept on hand at the station yard.

Operations

First priority is given to SR-376 because this section has the highest volume of traffic.

The centerlines on SR-377 and SR-378 are plowed initially. Once SR-376 is plowed and sanded, the crew will direct their efforts toward removing the snow and sanding SR-377 and SR-378. Because colder temperatures are more prevalent in Big Smoky, salt/sand is initially applied to all roads to impede snow packing.

Special Considerations

The supervisor at Big Smoky Station should maintain communication with Austin (crew 385) and crew 171 supervisors to be properly informed of weather and road conditions.

SR-377 (Manhattan Road) is the highest and steepest road in crew 172 section and must be given special attention because it typically receives snowfall before other roads. Big Smoky shares its road recording with crew 171.

Routes and Levels of Service

Route	Service	Description
SR-376	B	From the junction with SR-377 (the Manhattan Road) to its terminus at the junction of US-50.
SR-377	C	From the junction of SR-376 to its terminus in Manhattan.
SR-378	C	From the junction of SR-376 to its terminus in

Route	Service	Description
		Round Mountain.

Crew 173 - Blue Jay Maintenance

Equipment and Materials

Blue Jay maintains a salt/sand stockpile in the maintenance yard and shares a stockpile on US-6 at M.P. 46.50 with crew 171. Portable signs and other traffic control devices are kept on hand at the station yard.

Operations

US-6 is given first priority as it has the highest traffic volume in this section. Because of the extreme low temperatures experienced in this section salt/sand is applied at the onset of apparent large storms to impede snow packing.

Special Considerations

Blue Jay's section contains 3 summits, which receive special attention with abrasives during snowstorms. Blue Jay shares its road recording with crew 171, Tonopah.

Routes and Levels of Service

Route	Service	Description
US-6	A	From M.P. 44.14 to the boundary of District I/III, 6 miles west of Currant Creek.
SR-375	B	From the junction with US-6 to the Nye/Lincoln county line.

Crew 175 - Goldfield Maintenance

Equipment and Materials

A salt/sand pile, portable signs and other traffic control devices are in located in the Goldfield maintenance yard.

Operations

During major storms all personnel will be actively engaged in snow removal and applying abrasives to US-95 which has the highest priority for snow removal. Afterwards SR-266 and SR-267 will be cleared as directed by the supervisor. The lowest priority is SR-774, which is a gravel road with very low traffic volume.

Special Conditions

There are three major summits in Goldfield section requiring special attention. Two are located on US-95 (Goldfield and Stonewall summits) and the third is located on SR 266 (Lida Summit). Goldfield shares its road recording with crews 123 and 170. Cooperation with the Esmeralda County Sheriff's Office is very helpful in that they notify NDOT of snow or road hazards encountered while on patrol.

Permanent chain/snow tire control signs are located on each side of Goldfield Summit.

Routes and Levels of Service

Route	Service	Description
US-95	A	From the junction of SR-267 (Scotty's Castle Road) to 12.88 miles north of Goldfield.
SR-266	B	Lida Road from the junction with US-95 to the Nevada/California state line.
SR-267	C	Death Valley/Scotty's Castle Road from the junction with US 95 to the Nevada/California state line.
SR-774	D	Goldpoint Road from the junction with SR-266 to its terminus in Goldpoint.

Crew 176 - Mina Maintenance

Equipment and Materials

Mina has a salt/sand stockpile at the maintenance yard and on SR-361 at M.P. 13.00 in Nye County. Mina also shares a stockpile, located at Coaldale, with crews 177 and 170. Chain/snow tire control signs are permanently located on SR-844 at M.P. 3.67 and 11.75. Portable signs and other traffic control devices are kept on hand at the station yard.

Operations

During major snowstorms the highest priority is US-95 because of the high volume of traffic. The next priority is SR-361, which often gets heavier snow at the higher summits than US-95. The last priority is SR 844.

Special Considerations

It is often necessary to patrol SR-361 and SR-844 during inclement weather since they frequently receive snow first. The Mina jurisdiction has four summits, which require plowing and abrasives during storms. The crew in Mina may assist crew 177 as required. Mina shares its road recording with crew 170.

Routes and Levels of Service

Route	Service	Description
US-95	A	From the junction of US-6/US-95 (Coaldale) to the junction of US-95/SR-361 one mile north of Luning.
SR-361	B	Gabbs Road from the junction with US-95 to the Churchill/Nye county line.
SR-844	C	Ione Road from the junction with SR-361 to its terminus at M.P. 12.32.
FR-401	D	From the junction with SR-361 to its terminus at the Basic Refractory.

Crew 177 - Montgomery Maintenance

Equipment and Materials

A salt/sand stockpile is located at the Montgomery Maintenance Station. This crew also shares a salt/sand stockpile with crews 170 and 176 at Coaldale. Chain/snow tire control signs are permanently located on US-6 at M.P. MI 0.21, MI 4.77, MI 11.95 and ES 11.10. Traffic control signs and equipment are stored at the Montgomery Maintenance Station.

Operations

Montgomery Pass elevation is above 7,100' and in the event of major storms it is important that salt/sand is applied as early as possible. This road is a major artery linking California and Nevada and carries a high percentage of trucks. The road on both sides of the summit is narrow and steep with sharp curves. During major storms an extra snowplow is sent to crew 177 from Tonopah to assist with the "B" level of service routes.

Special Considerations

Crew 177 shares its road recording with crew 170. Adverse weather conditions are reported to Reno district office and Caltrans in Bishop via the Tonopah Maintenance Station.

There are several shaded areas on US-6 that must be given special attention with application of abrasives. During windy conditions this route must be patrolled frequently for removal of snowdrifts.

Routes and Levels of Service

Route	Service	Description
US-6	A	From the junction of US-95/US-6 (Coaldale) to the Nevada/California state line.
SR-360	B	From the junction with US-6, at Basalt, to its terminus at the junction of US-95.
SR-264	B	Fish Lake Valley Road, from the Nevada/California state line to its terminus at the junction of US-6
SR-773	C	Fish Lake Valley Cutoff, from the junction with SR-264 to its terminus

Route	Service	Description
		at the junction of US-6.