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Driving behind a snow plow can be dangerous if not approached correctly. Stay safe on the highway with these tips.

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"Employers should consider scheduling maintenance and repair jobs for warmer months" - OSHA spokesperson

WINTER APPROACHES

Thankfully the hot weather that goes along with summer is finally over! Unfortunately, that means winter weather is rapidly approaching, and cold stress should be taken every bit as seriously as heat exhaustion.

The bad news: highway and bridge construction workers don’t typically get “snow days,” or a day off because it’s a wee bit chilly outside. The good news: there are things that you can do to help you survive the winter’s worst weather.

CLOTHING

Wearing warm clothing is important, but on those really cold days – consider wearing two or even three layers of warm clothing. Although it may not be the most appealing clothing, you’ll thank yourself for remembering that extra sweatshirt when wind chills are below zero and dropping. While wearing layers of clothing is important, don’t wear tight clothing. Tight clothing will reduce blood circulation, keeping warm blood from reaching your extremities.

“Dressing properly is extremely important to preventing cold stress and the type of fabric worn makes a difference,” an OSHA spokesperson told Better Roads. “Cotton loses its insulation value when it becomes wet. However, wool, silk and most synthetics retain their insulation even when wet.”

And don’t forget to protect your ears, face, hands and feet! Wearing an insulated hat that covers most of your head and face will help keep your entire body warmer. As for boots, make sure they’re both waterproof and insulated. This is especially important if you’re working in snow.

BREAKS

During those days of extreme cold temperatures, be sure to take an extra break or two. (Continued on page 4)
Dressing properly is important to preventing cold stress.

(Continued from page 3)

During your breaks, find a warm and dry location that will allow your body to return to normal temperatures. If any of your clothing has become wet from the snow and/or ice, change into some dry clothes. If you haven’t been keeping up on the fluids, grab a warm beverage.

“Warm, sweetened fluid will help increase the body temperature of the affected person,” says an OSHA spokesperson.

Be Prepared
Be sure you have all of the necessary cold weather gear. This includes a thermos for warm liquids and a first aid kit designed to help you out in cases of cold stress. Place several chemical hot packs inside the first aid kit just in case you can’t get to a warm location as quickly as needed. If your hands or feet get too cold, consider placing a hot pack in your gloves and/or shoes.

“Additionally, employers should consider scheduling maintenance and repair jobs for warmer months, avoiding exposure to extremely low pulse and slow breathing – call 911 immediately. While waiting for emergency crews to respond, move the victim to a warm and dry location. Remove any wet clothing and cover him/her with dry blankets.

“...A person can die if help is not received immediately,” an OSHA spokesperson told Better Roads.

Stay Aware
This may be the most important step to staying safe in extreme cold winter weather conditions. Pay attention to your body, and your coworkers. If you notice yourself, or any coworkers shivering uncontrollably, becoming fatigued and/or disoriented – it’s time to take a break. If you notice yourself, or any coworkers, showing more serious symptoms – blue skin, dilated pupils or an extremely low pulse and slow breathing – call 911 immediately. While waiting for emergency crews to respond, move the victim to a warm and dry location. Remove any wet clothing and cover him/her with dry blankets.

“...A person can die if help is not received immediately,” an OSHA spokesperson told Better Roads.

Resource: Better Roads, November 5, 2014
Article from Missouri LTAP Newsletter - Fall 2014
Written by Brian Ethridge
When you encounter a snowplow, remember:

- Plows travel slowly, usually 25-30 miles per hour or less. Begin slowing down as soon as you see a snowplow. The most common crashes are motorists hitting the rear ends of snowplows.

- Stay well behind the snowplow. Because snowplows are large, operators cannot see directly behind their trucks. Be extremely cautious when passing or meeting snowplows. They can be suddenly thrust sideways by drifts and hard snowpack.

- Do not pass in a snow cloud or until you can be sure the road ahead is clear of vehicles and snowdrifts. Be patient and wait for the driver to see you or when they pull over so traffic can safely pass.

- Snowplows and traffic cause light snow to swirl. It can become difficult or impossible to see the plow and the roadway, and also for the plow operator to see you.

- Never pass a plow on the right. Some snowplows are equipped with a wing plow—an eight-foot extension on the right side of the truck. Plows aren’t just removing snow. They may also be spreading sand or deicer on roads. Maintain a safe distance behind snowplows to avoid being sprayed with deicing material.

- Be careful when meeting plows as they may be spreading sand or deicer and the operator may not be able to shut the spreaders off when you approach. Reduce speed when meeting a plow and move as far right as you safely can to prevent windshield damage.

- Know where the plow is.

On multi-lane highways, the snowplow could be in any lane. Watch for snowplows that may be turning around on Interstate ramps or on an “Authorized Vehicles Only” cross-over in the median of interstate or divided highways.

Snowplows are on the road for your safety!

Article from Nebraska LTAP Newsletter – Fall 2013
No matter how large or small your agency, addressing your snow plan is necessary for the safety of the traveling public as well as the safety of agency employees. Your plan should be kept current and reviewed more than once a year. There are many factors to consider with each snow event such as; rate of snowfall, moisture content, temperature, wind speed, ice and other situations during the winter seasons. Guidelines should be discussed to establish general policies and procedures to make traveling safe. Each event will have its own challenges that force deviations from a snow plan. A snow plan must be a flexible document to allow management to make decisions as a storm progresses. Your Snow Plan should have a paragraph that lets the public know what is expected of them as well as informing them that the plan is flexible and adapts to each snow event. Even though it would be nearly impossible to address every issue in a snow plan, there are elements that should be included in your plan as follows:

**Prioritizing Roads**

Determine which roads/streets will receive priority over others. Receiving input from the public as well as local agency employees, mail carriers, bus route drivers, law enforcement, EMS and emergency managers could assist with identifying troubled areas with possible solutions for both past and present storms.

(Continued on page 7)
Motorists should use caution and check road conditions before they travel. Even a light snowfall can cause roads to become slick. Remember the following tips when driving in inclement weather:

- Slow down
- Steer and brake gently
- Accelerate slowly at intersections
- Allow plenty of distance between your vehicle and the one ahead of you
- Stay back 100 feet from snow plows that may be spreading salt
- Avoid passing snow plows, even when on a multi-lane road
- Be aware that bridges and overpasses generally experience freezing conditions first

One of the best ways to be prepared is to check road conditions before you go.

Excerpt from Missouri LTAP Newsletter - Fall 2014
Written by Bob Hyberger
WHAT'S IN YOUR WINTER DRIVING EMERGENCY KIT?

- Cell phone or two-way radio
- Windshield ice scraper
- Snow brush
- Shovel
- Tow Chain
- Flashlight with extra batteries
- Traction aids (bag of sand or cat litter)
- Blankets, Change of Clothes (Wool Hat/Gloves/Scarf/Coat)
- Emergency Flares
- Jumper Cables
- Snacks
- Water
- Road Maps
Hypothermia

It occurs when the normal body temperature (98.60°F) drops to less than 95°F. Exposure to cold temperatures causes the body to lose heat faster than it can be produced. Prolonged exposure to cold will eventually use up the body’s stored energy. Symptoms include uncontrollable shivering. Moderate to severe symptoms include loss of coordination, confusion, slurred speech, heart rate/breathing slow, unconsciousness and possibly death.

- Call 911 immediately in an emergency
- Move worker to warm, dry area
- Remove any wet clothing and replace with dry clothing.
- Wrap the entire body (including the head and neck) in layers of blankets; and with a vapor barrier (e.g. tarp, et.) DO NOT COVER FACE.

If Medical Help is More Than 30 Minutes Away:

Give warm sweetened drinks if alert (NO Alcohol), to help increase the body temperature. Never try to give liquids to an unconscious person.

Place warm bottles or hot packs in armpits, sides of chest, and groin.

Call 911 for additional rewarming instructions.

Note: Rewarming too rapidly can cause the victim to have circulatory problems, resulting in heart failure.

Information from OSHA website:
https://www.osha.gov/dts/weather/winter_weather/index.html#coldstress

From Montana LTAP – Winter 2015 Newsletter
A NEW ERA IS DAWNING

BY AUTHOR KYLE KITCHEL

A member of the Osage Nation and 17-year veteran in the Tribal Transportation Program looks back at the history of road building on reservations—and forward at today’s tribal DOTs.

The following question emerged 2 years ago at the Office of Federal Lands Highway and the Bureau of Indian Affairs: “How long has the Federal Highway Administration been working in Indian Country?” The reason for this question stems from the growing interaction among FHWA, tribal governments, the Tribal Transportation Program, and the Federal-Aid Highway Program’s division offices. According to the 2013 audit by the Office of Inspector General, “One of the changes Congress has made to FHWA’s role in the program is that tribes now have the option to carry out their transportation program directly through FHWA. The number of tribes opting to work directly with FHWA has increased from the initial 3 in 2006, to the current number of 117 tribes.” As of September 2015, that number had grown to 130.

With roots back in roadway legislation enacted in the early 1900s and evolving out of more recent legislation, tribal public authorities have emerged across the country and are developing into full-fledged departments of transportation. These tribal DOTs are working to improve the transportation infrastructure in Indian Country.

In Montana, for example, Dan Lozar, P.E., manager of the Division of Water of the Natural Resources Department of the Confederated Salish & Kootenai Tribes, says, “We are forced to contend with ever-increasing construction and maintenance costs while funding levels remain stagnant. A successful marriage between planning and engineering allows for our continued success despite this difficult situation.” He adds, “Transportation is truly a communal need. It’s tough to find a more fundamental right than safe and efficient transportation on the reservation. We
constantly think outside the box to make our projects go further, but a vast and aging infrastructure will forever keep us clawing uphill.”

In other words, the tribal DOTs are facing the same financial challenges and constraints as State DOTs. Over the years, they have been addressing those challenges, and others.

**Early Road Building On Reservations**

Examples of road building can be found in treaties between Indian nations and the Federal Government. For example, the second article of the Treaty of Fort Laramie with Sioux, Etc., signed on September 17, 1851, reads, “The aforesaid nations do hereby recognize the right of the United States Government to establish roads, military and other posts, within their respective territories.”

Another example is the third article in the treaty with the Yakima (now known as the Yakama Nation) in 1855: “And provided, that, if necessary for the public convenience, roads may be run through the said reservation; and on the other hand, the right of way, with free access from the same to the nearest public highway, is secured to them; as also the right, in common with citizens of the United States, to travel upon all public highways.”

When the treaty era ended around 1900, reservation boundaries determined the locations of many Native American communities, and their previous way of life came to an end. A workforce-model society more reminiscent of Western civilization replaced the nomadic life of many tribes or other traditional ways of life. Governmental policies administered goods and services through Indian agents hired by the Federal Government for reservations and other areas of Indian Country.

A Federal law passed March 3, 1875, required that all able-bodied Indians between the ages of 18 and 45 had to labor for the benefit of themselves or the tribe in order to be entitled to rations. In 1885, U.S. Indian Agent R.H. Milroy reported from the Washington Territory: “I had the board to lay off the reservation into seven road districts, and to appoint a road supervisor in each, whom I instructed in their duties in relation to warning out the able-bodied men of their districts, opening and constructing roads and bridges, keeping the same in repair.”

Road, river, and train transportation all figured in the 1900 report of the Commissioner of Indian Affairs: “All agency and school supplies, formerly brought in by steamboats, are now transported from [the town of] Needles, [CA], in large rowboats by the Indians. They also transport many tons of freight for mines along the river. A large number have worked in mines the past year, and in cutting wood and making roads for mines. The prospect for an increase of such work is good. A number are working for the Santa Fe Railroad Company, and a few on ranches. For the first time a number are earning good wages carrying mails. Practically all this outside work has been secured for them through the efforts of the agent and agency employees.”

Any idea that some observers today might harbor to the effect that the Federal Government provided the necessities of life to the Indian people without their participation is erroneous. The laborers who built the homes and schools, farmed the land, and harvested the crops on reservations were a tribal workforce.

In addition, through various forms of government programs, Native Americans developed labor skills that enabled them to work off the reservation in mainstream U.S. society.
and to be assimilated into the workforce of Western society. Through those government programs, Indian road construction crews also began to emerge.

During this early period, the U.S. Government considered tribal citizens to be members of an aboriginal people, not members of a tribal government. The idea was to assimilate the individual Indian into becoming a U.S. citizen, not as a member of a tribal government that could manage a transportation project. This approach resulted in tribal citizens being allowed to participate in the transportation process as laborers, but not as decisionmakers or as administrators.

This would take time to change.

**The Transfer Legislation**

During the early years of road building on reservations, the Federal Government supplemented the financial costs. According to FHWA’s unofficial historian Richard F. Weingroff, the Federal Highway Act of November 9, 1921, rejected the view of long-distance road advocates who wanted the Federal Government to build a national highway network. Weingroff wrote, “To satisfy them, the act limited Federal aid to a system of Federal-aid highways, not to exceed 7 percent of all roads in the State.”

Also included in this act under section 3 was the following: “The Secretary of Agriculture is authorized to cooperate with the State highway departments, and with the Department of the Interior in the construction of public highways within Indian reservations, and to pay the amount assumed therefore from the funds allotted or apportioned under this Act to the State wherein the reservation is located.”

This 1921 legislation, as interpreted by the U.S. Comptroller General, spurred road work on Indian reservations with the Federal Government picking up the tab. Following this legislation, the Bureau of Indian Affairs approved access to these projects for approximately 25 reservations.

Road building requires a large investment of funds, and with the Federal Government paying for 100 percent of the cost on Indian lands, it did not take long for State governments to realize that building roads on reservations was less expensive than constructing State routes bypassing the reservations.

With this 1921 mandate for funding projects, Indian laborers continued to develop their skills in road construction and would further their opportunities during the Great Depression when the Civilian Conservation Corps was created to put U.S. citizens back to work.

At the time, John Collier was the Commissioner of Indian Affairs. He petitioned on behalf of Native Americans to form a Civilian Conservation Corps for Indian Country. It was called the Indian Emergency Conservation Work. This corps called for an educational element that would provide management and leadership courses for Native Americans. As the program was implemented, however, the educational aspect was overlooked, and the greater focus was placed on completing projects with speed and efficiency.

**Indian Reservation Roads Program**

In 1928 the Indian Reservation Roads Program was established authorizing the Secretary of Agriculture to cooperate with State highway agencies and the Department of the Interior to survey, construct, reconstruct, and maintain Indian reservation roads serving Indian lands. The relationship would last until the Federal Lands Highway program developed in 1982 under the Surface Transportation Assistance Act. During these times, road building was
administered under memorandums of agreement that developed Federal policies between the Bureau of Indian Affairs, Bureau of Public Roads, and then eventually with FHWA. In 1974--1 year before passage of P.L. 93-638 Indian Self-Determination and Education Assistance Act, the memorandum of agreement between FHWA and the Bureau of Indian Affairs allowed tribal leaders at the decision making table as peripheral negotiators. Prior to 1974, the district engineer with the Bureau of Indian Affairs made the decisions and then submitted them to FHWA for approval. The Transportation Equity Act for the 21st Century (TEA-21), enacted in 1998, represented the next important step in increasing the responsibility of the tribes. TEA-21 allowed tribal governments to become public transportation authorities. TEA-21 modified the Indian Reservation Roads Program to permit tribal governments to assume responsibility for implementing transportation programs on reservations using Federal Highway Trust Funds. Eventually, transportation departments overseen by the tribal governments began to develop out of that program.

The rulemaking for this and other provisions of TEA-21 was completed in June 2004. This new responsibility birthed the tribal DOT's that administer the development of transportation systems in Indian Country today.

**The Emerging Tribal DOTs**

Through the leadership of tribal governments, public authorities have focused on fostering and employing transportation professionals within their various ranks, and establishing DOTs that can deliver a quality product. Tribal DOTs range from a single individual on some reservations up to fully functioning transportation departments similar to State DOTs on others.

These force account workers representing the Association of Village Council Presidents pose in front of the equipment they are using to construct a project on tribal land.

The emerging Tribal DOTs have assumed responsibility for delivering the Tribal Transportation Program (TTP), formerly known as the Indian Reservation Roads Program. Under the TTP, tribes may elect to administer the program through several forms of agreements with the Bureau of Indian Affairs or FHWA's Office of Federal Lands Highway. The TTP, tribal DOTs may elect to administer the program through several forms of agreements with the Bureau of Indian Affairs or FHWA's Office of Federal Lands Highway. The TTP, tribal DOTs may elect to administer the program through several forms of agreements with the Bureau of Indian Affairs or FHWA's Office of Federal Lands Highway. The TTP, tribal DOTs may elect to administer the program through several forms of agreements with the Bureau of Indian Affairs or FHWA's Office of Federal Lands Highway.

These force account workers representing the Association of Village Council Presidents pose in front of the equipment they are using to construct a project on tribal land.

To date, almost every federally recognized tribe participates in administering the TTP in transportation planning and/or construction. This opportunity has enabled tribal DOTs to grow in professionalism and fill jobs that Federal employees once held. The new era of tribal transportation administration is developing quickly.

Moreover, additional changes are occurring nationally. The Transportation Research Board has a full standing committee called the Native American Transportation Issues Committee. In addition, the National Congress of American Indians has a transportation committee, and there is also an Intertribal Transportation Association. These organizations are just a sample of what has developed in a short time, not to mention local and regional organizations throughout the United States.

**Standards for Tribal DOT Projects**

If a tribal DOT receives Federal funding for a transportation project, the tribe is required to follow Federal regulations similar to...
those that govern the Federal-Aid Highway Program that States adhere to. But they must also follow any tribal laws that apply. Every tribal DOT administering the TTP must develop a long-range transportation plan and a Tribal Transportation Improvement Plan (TTIP). This plan is restricted to projects that are financially constrained (that is, ones with funds that are reasonably available to be programmed into a TIP to complete the project) and are on the National Tribal Transportation Facilities Inventory, which is managed by the Bureau of Indian Affairs. FHWA’s Office of Federal Lands Highway also must approve the TTIP.

Prior to construction, tribal DOTs must have the project’s plans, specifications, and estimates (PS&E) stamped (approved) by a professional engineer who is registered in the State where the project will take place. The tribe is the approving public authority for the PS&E package. The package consists of stamped design, permitting, rights-of-way, and environmental documentation, along with any FHWA-approved design changes.

Tribes also must adhere to any additional permits or requirements that might not be included in a State transportation department’s PS&E package, but are included in their own laws that govern the area where they have jurisdiction, even when the land is held in trust by the Federal Government. Some of these laws pertain to the environment, land, and infrastructure. For instance, some tribal governments manage fisheries that depend on water quality for their viability. During the development of road projects that are adjacent to bodies of water, the tribal DOT might be required to obtain permits necessitated by tribal laws that deal with fisheries or water quality, in addition to complying with the Federal laws.

The tribal DOT will advertise the projects according to tribal policies and procedures, as well as any Federal requirements. Once the contract is awarded, the tribal DOT manages the project in accordance with its quality assurance and quality control measures. A representative of FHWA or the Bureau of Indian Affairs then makes routine visits to the jobsite to provide assistance, stewardship, and oversight of program funds.

**Spotlights on Tribal DOTs**

The following are examples of tribal DOTs in action:

Confederated Salish & Kootenai Tribes. Located in northwest Montana, the Flathead Reservation comprises 1.3 million acres (526,000 hectares) with a transportation network of approximately 1,800 miles (2,897 kilometers). Depending on the location, ownership of the roads ranges from county to tribal, State, and Federal authorities.

The roads program is housed in the tribe’s Natural Resource Department--Division of Water. A licensed professional civil engineer manages not only road construction, but also the department’s other civil engineering duties. The transportation engineering staff consists of a road engineer, a professional planner, civil engineering technicians (American Concrete Institute certified), a construction supervisor, and a road maintenance supervisor, along with force account crews, who are direct employees of the tribal government. Projects can range from work on local streets and bridges to partnerships working on State highways.

The tribe has a tribal college that offers training and education for equipment operators. The tribal DOT employs some of the graduates during the summers and often allows the college to use small-scale projects as training opportunities for the students.

These workers with the Association of Village Council Presidents are constructing an old boardwalk at Kongiganak, a coastal Alaskan village.

**What’s Ahead**

To compete in a 21st-century transportation environment, tribal DOTs have had to adapt and learn a great deal in a limited time. They have gained the respect and admiration of the transportation community as it has witnessed their growth in self-determination and self-governance.

“The more than 565 federally recognized tribes are explicitly acknowledged...
as public authorities in 23 U.S.C. 101,” says Robert W. Sparrow, director of the Tribal Transportation Program in FHWA’s Office of Federal Lands Highway. Gaining recognition as DOTs is an ongoing process that requires State and local DOTs to acknowledge that the tribal DOTs are full-fledged public authorities that have taken on the responsibility of sovereign nations for their own transportation systems.

Kyle Kitchel is the lead transportation specialist assisting the TTP Based in FHWA’s Office of Federal Lands Highway in Vancouver, WA, he is a member of the Osage Nation and has been working with the TTP for 17 years. He holds a B.A. in urban and regional planning from Eastern Washington University.

For more information, contact Kyle Kitchel at 360-619-7951 or kyle.kitchel@dot.gov.

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**CALENDAR OF EVENTS**

**TRAINING 2016**

<table>
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<th>Date</th>
<th>Event</th>
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<tr>
<td>Feb 9-11</td>
<td>Computer Applications (Word, Excel, PowerPoint)</td>
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<tr>
<td>Feb 23-25</td>
<td>Transportation Programs - Overview of Tribal, State and Transit Programs</td>
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<tr>
<td>Feb 29 - Mar 4</td>
<td>Spring Tribal Transportation Institute</td>
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<tr>
<td>Mar 22-24</td>
<td>Indirect Rate Cost</td>
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<tr>
<td>Apr 19-21</td>
<td>Computer Applications (Word, Excel, PowerPoint)</td>
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**EVENTS 2016**

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<tr>
<td>Mar 22-24</td>
<td>Alaska Tribal Transportation Symposium</td>
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<tr>
<td>Mar 22-24</td>
<td>11th Annual FTA Drug and Alcohol Program National Conference</td>
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<td>Apr 2-5</td>
<td>American Planning Association National Conference</td>
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<td>Apr 3-5</td>
<td>Lifesavers National Conference</td>
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<tr>
<td>May 22-25</td>
<td>North American Snow Conference</td>
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**More Information visit:** tribalmgmt.uaf.edu/akttap
This field guide is intended for readers who have been assigned the task of dust control or dust control management. Here is what you need to know:

- Why dust control is important.
- Road design and condition is an important part of dust control.
- Selecting the right dust palliative and proper application are job-specific and are vitally important.
- How to judge dust control success in terms of mechanical effectiveness and economics.

Be aware that various terms are used when generally referring to dust control materials, i.e., the “stuff” that one applies to a gravel road surface to aid in controlling dust. Because many source documents were used to create this field guide, and sometimes simply for the sake of word variety, the following general terms are intended essentially as synonyms: dust control chemicals, agents, palliatives, products, materials.

Read More or to download the document click the link below.

Find it here:
http://www.dot.state.ak.us/stwddes/research/assets/pdf/dust-cntrl-fg.pdf