

LTAP **MATTERS**

Montana's Answers To Technical Education of Roads & Streets
Vol. 25, No. 4

Fall 2008



From the Director

Montana received more moisture this past spring and summer than the previous five seasons. With increased moisture comes the need to understand soil types and engineering principles when trenching and placing culverts. Every year about 400 U.S. workers die in trenches and 6,400 are seriously injured doing the work that is done by workers like you every day. Many of these accidents could have been prevented if workers would have received safety training on trenching and shoring.



Montana LTAP Director Steve Jenkins demonstrating the use of sieves to determine soil types.

At the recent Snow Rodeo, my presentation was on this important subject. We discussed the four soil types:

Soil Type A – Most stable: clay, silty clay, and hardpan (resists penetration)

Soil Type B – Medium stability: silt, sandy loam, medium clay and unstable dry rock

Soil Type C – Least stable: gravel, loamy sand, soft clay, sub-merged soil or dense, heavy, unstable rock

Stable Rock – Excavating makes this soil unstable. (In practice, this kind of rock is never worked on).

Participants then practiced the four ways of testing soil types:

- **Sedimentation Test**
- **Wet Shaking Test**
- **Thread Test**
- **Ribbon Test**

There are four grain types:

- **Silt**
- **Clay**
- **Gravel**
- **Sand**

It is important to remember that soil can weigh 100 to 145 pounds per cubic foot. Pulling a worker's buried foot could take 750 pounds of force to remove it.

We discussed the two main types of systems for protection:

- **Sloping or benching**
- **Shoring or shielding**

As we move into the fall and finish large earthwork projects, repair culverts, and general road reshaping, keep in mind these trenching safety techniques. Know that I am available to provide this training for your agency also by call me at 1-800-541-6671.

Safe excavating, Steve Jenkins

LTAP Matters is published by the Local Technical Assistance Program. LTAP is housed under the Department of Civil Engineering in the College of Engineering at Montana State University, Bozeman, Montana.

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On our website, we list upcoming training courses, registration forms, library information, our contact information, newsletters, various links, and MACRS information. Please go to:
www.coe.montana.edu/ltap

The Local Technical Assistance Program/Tribal Technical Assistance Program (LTAP/TTAP) is a nationwide network of 58 centers - one in every state, seven serving Native American tribal governments and one in Puerto Rico.

The LTAP/TTAP Mission is to foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers.



U.S. Department of
Transportation
**Federal Highway
Administration**



19th Annual Equipment Operator Training Workshop &

SNOW RODEO

On September 3, 2008, the City of Great Falls hosted the 19th Annual Equipment Operator Training and Snow Rodeo. Over 60 training participants signed up for the first day of activities and 56 contestants competed during the second day of Snow Rodeo competition.

“It’s great to see people coming from counties, cities, and Montana Department of Transportation for this event,” commented Genevieve Albert, Montana LTAP Coordinator. “From the training participants, 22 of them were first timers, indicating that this event continues to provide important safety training for the transportation workforce.”

The first day of training started out with Trenching and Shoring Safety presented by Montana LTAP Director Steve Jenkins providing valuable engineering insights to soil types and how to test soils. Cave-in situations were discussed. Kirk Smith, Safety & Health Specialist from the Montana Department of Labor & Industry, discussed liability issues when trenching.

Tom Jones, Helena Cat Rental, taught crane and rigging safety. His examples of slings and effective rope construction were covered with real life examples of how not to sling a load. He also showed correct ways to secure a dead-end, as well as colorful stories of what happened when loads were not secured properly or if cranes were overloaded. From his hands-on examples, Jones warned of the importance of examining a rope and when it must be removed from service:

If you have more than the following numbers of broken wires in a rope, that rope must be removed from service:

- In Running Ropes:
- 2 Wires in One Strand in One Lay
 - 5 Wires at Random in One Rope Lay

- In Standing Ropes:
- 2 Wires at Random in One Rope Lay
 - 1 Wire at an End Connection

- Other Criteria for Rope Removal:
- Wear of 1/3 the Diameter of Outside Individual Wires
 - Kinking, Crushing, Bird Caging, or Any Other Damage Resulting in the Distortion of the Rope Structure
 - Evidence of Any heat Damage From Any Cause
 - Particular Care Should Be Taken in the Inspection of Non-Rotating Wire Rope
 - Corrosion

Jones also added that common sense goes a long way when deciding to retire a rope.



Tom Jones, Helena Cat Rental, (left) discusses rigging issues with workshop participant.

The afternoon kicked off with a panel discussion of “Bring It With You” designs from Chouteau County, Missoula County, and Hill County. Russ Albers, Chouteau County, explained how their sign truck contained all the essential gear for either replacing a sign or putting up a new sign. The truck is equipped with a generator, a drill, rack for signs, and equipment needed for sign installation.

Missoula County representatives discussed how their design of carbide steel bits on scarifying blades do not wear down as fast and that the large picks allow for deep cutting with less wear. They also require less horsepower to pull.

Hill County’s design of a temporary sign post was developed due to the high winds encountered while on the job. To prevent the temporary traffic control signs from being blown away, they designed a rod that could be driven into the ground and then place the sign post into the rod.

Continued on Page 3 . . .

ADVISORY COMMITTEE MEMBERS

The Advisory Board meets annually to make recommendations and evaluate the effectiveness of the Montana LTAP program.

Debbie Arkell
City of Bozeman

Bob Burkhardt
Federal Highway
Administration

Kelly Elser
Town of Ennis

Fred Hansen
MACo

Jim Rearden
City of Great Falls

Russ Albers
Chouteau County

Thomas Danenhower
MMIA

Eric Griffin
Lewis and Clark County

Russ Huotari
Richland County

Sue Sillick
Montana Dept of
Transportation

Alec Hansen
Montana League of
Cities & Towns

Lynn Miller
Montana Dept of
Transportation

SNOW RODEO

(cont'd from Page 3)

For the remainder of the afternoon, Tractor and Equipment Company provided three new pieces of equipment for participants to try out after T&E's Equipment representatives Kevin Sedgewick and Mike Cook performed the walk-around inspection for each rig. Tom Gossack, Tractor and Equipment Company, also assisted in answering questions from workshop attendees.



This 950H CAT front end loader was also available to workshop participants.

Mike Cook (facing-left), T&E, explaining operations of the new 14M series motorgrader with Tom Gossack (facing-right), T&E, available for questions.

Workshop participant digging a trench with the new 420E backhoe.



Debbie Kimball, City of Great Falls, lower left, with son, Steven - a great helper! Upper left, Dee Strending, also City of Great Falls

For the second day - Snow Rodeo Competition, Debbie Kimball, City of Great Falls, with the help of her crew and MDT volunteers, kept everything running in smooth order.

“The Snow Rodeo is a highlight for many of the participants before they head into the snow season,” Debbie Kimball commented. “They learn equipment safety through the various obstacle courses set up for the front-end loader, motorgrader, and snow plow. The backhoe competition provides use of new equipment techniques and the written safety exam and a diagnostic test sharpen their skills.”



Jim Reardon, left, and Jim Turnbow, right, City of Great Falls

Jim Reardon, City of Great Falls Public Works Director, and Jim Turnbow, City of Great Falls, were available throughout the Snow Rodeo and announced Snow Rodeo winners at the end of the day.

Continued on Page 5...



Tina, "Rodeo Clown"

SNOW RODEO Champions 2008 - Cont'd from Page 4

All-Around 2008 Snow Rodeo Champion:
Clay Moore, Yellowstone County Road Department



Clay Moore
All-Around Champion

Divisional Winners

Snow Plow Division:

1st Place: Clay Moore, Yellowstone County
2nd Place: Cody Lattin, City of Great Falls
3rd Place: Rick Richetti, Lewis & Clark County
First Timer: Bud Hubbard, City of Bozeman

Motorgrader Division:

1st Place: Will Wertz, Broadwater County
2nd Place: Erik Lee, City of Missoula
3rd Place: Fred Feller, Jefferson County
First Timer: Wally Renz, City of Missoula

Front End Loader Division:

1st Place: Mike Longmire, Missoula County
2nd Place: Will Wertz, Broadwater County
3rd Place: Andy Dean, Yellowstone County
First Timer: Bud Hubbard, City of Bozeman

Backhoe Division:

1st Place: Matt Heckel, City of Bozeman
2nd Place: Clay Caudle, Lewis & Clark County
3rd Place: Clay Moore, Yellowstone County
First Timer: William Nance, City of Helena



Top Row Left to Right: Will Wertz, Fred Feller, Bud Hubbard, Matt Heckel, Mike Longmire, Rick Richetti
Bottom Row Left to Right: Clay Moore, Andy Dean, Cody Lattin, Clay Caudle

LTAP 2008 Annual Training Calendar

**Geosynthetics 2009
February 25-27, 2009
Salt Palace
Convention Center
Salt Lake City, Utah**

**Conference theme:
Hydraulic and
Environmental
Engineering**

The areas of focus include: Shoreline and water protection, conveyance and storage, mining, agriculture, aquaculture, temporary roads and drainage. It is expected that approximately 150 technical and educational programs will be scheduled during Geosynthetics 2009. Visit the following website for more information: www.geoshow.info

**2008 Road Dust
Management Practices and
Future Needs Conference
November 13-14, 2008
San Antonio, Texas**

Main themes of conference:

- Overview of road dust management issues
- Current road dust management practices
- Identifying knowledge gaps and research needs
- Developing recommendations for future needs that will assist practitioners, industry personnel and researchers by highlighting critical ideas and areas of focus.

More info: www.meeting-snorthwest.com/DustConference.htm

January 2008	February 2008	March 2008																																																																																																																																													
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*Some dates and locations are subject to change. Call
Genevieve Albert, LTAP, 1-800-541-6671 to confirm.*

Calendar of Events 2008

MACRS Conference Planning Meeting, October 28 & 29, 2009

Heritage Inn, Great Falls, Montana

MACRS President Wayne Waarvik will be holding this year's conference planning meeting at the Heritage Inn, Great Falls, Montana. All MACRS Officers and District Representatives will gather to discuss essential topics for county road departments to be presented at the 2009 MACRS Annual Conference being held at the Heritage Inn on March 30-April 2, 2009. He is requesting that if any county road departments have a specific topic they are interested in to please contact their district representative, officers, or himself:

President Wayne Waarvik, Valley County: 406-228-4231
1st Vice President Shawn Norick, Liberty County: 406-759-5623
Secretary/Treasurer Russ Huotari, Richland County: 406-433-2407
District #1: Bill Meisner, Ravalli County: 406-363-2733
District #2: Mitch Urdahl, Gallatin County: 406-582-3250
District #3: John Stokes, Pondera County: 406-279-3651
District #4: Wayne Buck, Rosebud County: 406-346-2261
District #5: Clay Moore, Yellowstone County: 406-256-6812

On October 28, the meeting will begin at 1:00pm until 5:00pm. Business will conclude on October 29, from 8:00am until noon. If you plan to attend please contact Genevieve Albert, Montana LTAP Conference Coordinator, at 1-800-541-6671.

Put on the Brakes on Fatalities Day, October 10, 2009

Did you know nearly 118 of our fellow citizens, almost all of whom are someone's friend, family and most beloved become a statistic each day? They are dying in tragic, and some of the most preventable accidents on our nation's roadways. Put the Brakes on Fatalities Day was initiated by many partner organizations who are working to lower this statistic. Our efforts to reduce fatalities address the need for improvements to our roadways, our vehicles and basic driver behavior. You too can become involved to promote the reduction of fatalities by utilizing information on this web site: <http://www.brakesonfatalities.org/> Please mark October 10, 2008 on your calendar "Put the Brakes on Fatalities Day." Tell your co-workers, family members and friends to do the same.

Montana LTAP Workshops:

MACRS Fall District Meetings - Proper Sign Practices

September 30, Tuesday	Lewistown
October 1, Wednesday	Havre
October 2, Thursday	Glendive
October 7, Wednesday	Bozeman
October 9, Thursday	Polson

To register for any of these classes, contact Genevieve Albert, Montana LTAP Conference Coordinator, at 1-800-541-6671. Information and brochures will be mailed out in August. This information will also be available on-line at www.coe.montana.edu/ltap.

Tentative Agenda:

Morning	Sign Retroreflectivity
	Sign Placement
	Warning Signs
	Advisory Speed
Noon - Lunch Provided	
Afternoon	Field Operations
	Sign Installation
	Curve Sign
	Use of Ball Bank Indicator

For those Planning Ahead:

2009 MACRS

Annual Conference

March 30 - April 2, 2009
Heritage Inn
Great Falls, MT

More information coming this
January 2009

ATSSA Traffic
Expo Convention
San Jose, CA
February 1-5, 2009
www.atssa.com

60th Annual
Road Builders' Clinic
March 3-5, 2009
Coeur d'Alene, Idaho

This Clinic is a two and a half day continuing education program of technical and managerial topics for engineers and road superintendents who are responsible for design, construction, operation, and maintenance of roads and bridges. Sponsors include Washington State University and University of Idaho

This year's clinic will incorporate sustainability into each topic:

- Cost Effective Design
- Bridges
- Environmental Issues
- Construction Solutions & Innovations
- Local Issues/Asset Management
- Research & Technology

For more information:
www.capps.wasu.edu/rbc

Consideration and Implementation of Proven Safety Countermeasures

The following memo was issued on July 10, 2008, from Jeffrey A. Lindley, Associate Administrator for Safety, FHWA

Improving safety is a top priority of the U.S. Department of Transportation, and FHWA remains strongly committed to reducing highway fatalities and serious injuries on our Nation's highways. We know that a comprehensive mix of strategies is required—including stronger policies



to support system-wide and sustainable improvements. We believe our area of greatest potential influence is how Federal funds are used and targeted to implement improvements that will have a positive impact on safety.

In our stewardship and oversight role for federally funded highway programs, we have the opportunity to strongly encourage Federal, State, local agencies, and tribal governments to include safety in their investment decision-making process. While there is still much work to do on determining the precise effectiveness of some safety countermeasures, we are highly confident that certain processes, infrastructure design techniques, and highway features are effective and should be encouraged whenever Federal funds are used. Safety should be considered at every stage of the project development process. Every investment decision should consider the impact on safety and every federally funded project should include appropriate safety enhancement features.

This guidance memorandum highlights when and where we believe certain processes, design techniques, or safety countermeasures should be used. This document also includes countermeasure descriptions and background on the proven effectiveness and benefits; a statement on when the countermeasure or process should be applied; links to reference documents; and current FHWA technical contacts for each topic. This guidance

was developed based on effectiveness data for various crash types compiled from a variety of sources. It reflects the types of circumstances and situations that we are confident will yield high pay-offs and be cost beneficial for all projects.

We need your leadership to encourage our partners to apply this guidance as they make investment decisions

and develop projects. I am requesting that all Federal-aid and Federal Lands Division Offices review this guidance and meet with officials in their State and with tribal governments, as well as Federal partners, to determine how and when they can consider these measures to improve safety when federally funded investments are pursued. In discussing this guidance with your safety partners, it will be particularly important to address the need for comprehensive high quality safety data as a foundational element for facilitating project and program decisions. Data systems should be continually improved to help foster better decision-making. The Office of Safety believes that widespread implementation of these safety countermeasures can serve to accelerate the achievement of local, State and national safety goals. We are currently considering whether to advance one or more elements of this guidance through a formal rulemaking process. As your office



works with your State, tribal governments, and Federal partners in implementing your State's Strategic Highway Safety Plan and providing stewardship and oversight of federally funded investments, we would appreciate feedback on your experiences in using this guidance. We also invite your input on other potential safety guidance needs.

List of guidance documents included herein:

(Note from Montana LTAP: Those items listed in blue are especially important to Montana local government agencies, per Steve Jenkins, Montana LTAP Director. Please go to this website to read a description of each numbered guidance document that also lists FHWA contacts for that particular area for input:

<http://safety.fhwa.dot.gov/policy/memo071008.htm#attach>

If you do not have website capabilities, please contact the Montana LTAP office and request a hard copy of these descriptions and contacts.)

1. **Road Safety Audits**
2. **Rumble Strips & Rumble Stripes**
3. Median Barriers
4. **Safety Edges**
5. **Roundabouts**
6. **Left and Right Turn Lanes at Stop-Controlled Intersections**
7. Yellow Change Intervals
8. **Medians and Pedestrian Refuge Areas in Urban & Suburban Areas**
9. Walkways

City of Bozeman Cements Alley

On September 8, 2008, John Van Delinder, City of Bozeman Street Division Superintendent, tried a new method of alley repair - mixing cement with top three inches of a “zipped” gravel alley. Van Delinder had seen a similar project on the APWA website.

Steve Kurk, City of Bozeman Street Operator, described this 600 foot alley, about 14 feet in width, as difficult to maintain due to high volume traffic.

Because it had rained over the weekend, the alley was wet enough to begin with reshaping on Monday with a motorgrader. A dump truck filled with 60 cement bags (94 pound/bag) distributed cement using an Epoke sander onto the reshaped alley. This was about three sacks to the yard.

The next step was “zipping” the alley with an attachment on a motorgrader called Zip It, very similar to a large rototiller. The crew set the zipper to a three-inch depth and proceeded to zip the alley.

A motorgrader once again shaped the alley with a slight crown for drainage. The next step involved watering the alley followed by rolling and packing it. The alley was temporarily closed for two days to let the cement mixture set up.

A month has passed and Steve Kurk said that the mixture of cement and gravel was holding up and bearing the high traffic volume. He said to check back on this project next spring for further reporting.



Steve Kurk, City of Bozeman, with Zip-It Attachment



Close Up of Zip-It Attachment



City of Bozeman Crew Distributing Cement



City of Bozeman Crew Zipping Alley

The New Center for Excellence in Rural Safety (CERS)



U.S. Transportation Deputy Secretary Barrett announces that the University of Minnesota as the National Clearinghouse to improve Rural Road Safety.

The U.S. Transportation Deputy Secretary Thomas J. Barrett has announced that the University of Minnesota will be home to a new national clearinghouse for information about the best way to make rural roads safer. The clearinghouse is part of Transportation Secretary Mary Peters' national strategy to bring new focus, including resources and new technology, to reducing deaths on the nation's rural roads. "The only way we will cut the number of deaths and injuries on the nation's roads is by finding a way to get officials the right information at the right time," said Barrett, "The University of Minnesota is going to do just that – and as a result, it is going to make our roads safer."

Built by the University's Center for Excellence in Rural Safety, the online clearinghouse will distribute the lessons that are being learned by researchers to transportation officials and first responders nationwide. It will also collect and distribute lessons that are being learned by transportation officials that are successfully combating rural road fatalities.

"It's not every day that researchers and administrators get to save a life simply by talking about their work," said Barrett, "Hundreds of drivers will one day soon owe their lives to the faculty and staff of this great institution."

The Department's Rural Safety Initiative will help states and communities develop ways to eliminate the risks drivers face on America's rural roads and highlight available solutions and resources.

The new endeavor addresses five key goals:

- safer drivers,
- better roads,
- smarter roads,
- better-trained emergency responders, and
- improved outreach and partnerships.

Approximately \$287 million in existing and new funding is available to support the effort. The Clearinghouse site is located at: <http://www.ruralsafety.umn.edu/clearinghouse/index.html> , and is a project of the Center for Excellence in Rural Safety (CERS).

From NACE UPDATE, Volume 8 Number 14

New Signal Timing Manual Ready for Free Download

The FHWA Office of Operations has issued *The Signal Timing Manual*, the first comprehensive guide to current practices related to traffic signal timing. Property timed signals save gas by keeping traffic moving smoothly. All the elements of signal timing, from policy and funding considerations to timing plan development, assessment, and maintenance are covered. The manual is the culmination of research into practices across North America and serves as a reference for a range of practitioners, including traffic engineers, signal technicians, design engineers, teachers, and university students. It is available at <http://www.signaltiming.com>. on YouTube at <http://youtube.com/watch?v=zG5iLMYF3wA>

From NACE UPDATE, Volume 8 Number 14

Interactive Maps on Website From the New Center for Excellence in Rural Safety (CERS)

The new website at www.saferoadmaps.org allows you to search your neighborhood - Would you be surprised to learn that nine people died on the highway you take to work everyday? Or would you be shocked to see that six teenagers died within five miles of your home in fatal car accidents? With the help of the interactive maps on www.saferoadmaps.org developed by University of Minnesota researchers -- you can learn those facts and more by simply typing in your address. Researchers in the Center for Excellence in Rural Safety (CERS) have mapped out every fatality in the nation with details on each death, so now you can see the "dead man's curve" on your commute or the "devil's triangle" in your backyard.

To view a video visit: http://www1.umn.edu/urelate/newsservice/Multimedia_Videos/safe_road.htm

Enter your address at www.saferoadmaps.org and you will see a map or satellite image of all of the road fatalities that have occurred in the area. Plus, users have the ability to narrow down their search to see the age of the driver, whether speeding or drinking was a factor, and if the driver was wearing a seatbelt. One of the most important aspects of the new tool also illustrates which life-saving public policies, such as strong seat belt laws, are in the chosen area.

CERS officials hope the tool will educate the public about road fatalities, especially those that live in rural areas. U.S. Census figures show that 21 percent of Americans live in rural areas and the Federal Highway Administration has found that 57 percent of highway deaths happen on rural roads.

From NACE UPDATE, Volume 8 Number 17

Montana LTAP Library

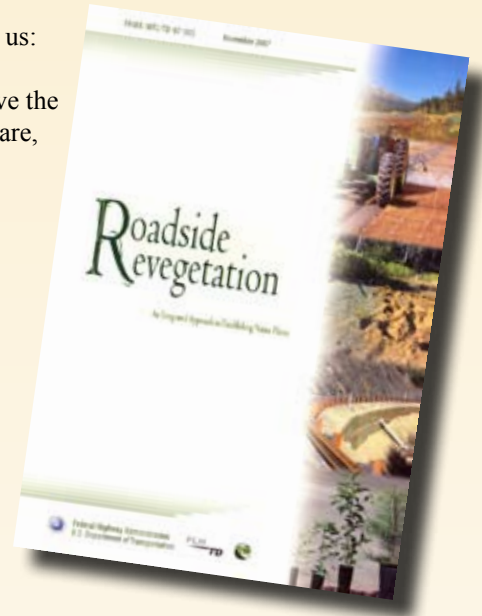
Welcome to the LTAP Lending Library where publications, videos, DVD's, and software may be borrowed for two weeks and then returned to the Library. Up to three videotapes or DVD's may be checked out from the LTAP Lending Library rent-free for two weeks. Some publications are free or for a nominal charge upon request.

Information or checkout procedures, call Genevieve Albert or Michele Beck, LTAP, 1-800-541-6671.

If you have computer access, please e-mail us: mtltap@coe.montana.edu.

We recently reorganized the library and have the new lists for the library publications, software, DVD's, and videos at our web site: www.coe.montana.edu/ltap.

At this website, you can also keep track of upcoming workshops, past and present newsletters, and "What's New" items that change periodically.



New Publications

p-522 Roadside Revegetation: An Integrated Approach to Establishing Native Plants (FHWA November 2007) This report offers an integrated approach to facilitate the successful establishment of native plants along roadsides and other areas of disturbance associated with road modifications. It guides readers through a comprehensive process of: 1. Initiating, 2. Planning, 3. Implementing, and 4. Monitoring a roadside revegetation project with native plants. (424 pages)

p-838 Informational Report on Lighting Design for Midblock Crosswalks (FHWA April 2008) This report includes information on lighting parameters and design criteria that should be considered when installing fixed roadway lighting for midblock crosswalks. The research included provides information on lighting that will enhance the ability of drivers to detect those pedestrians. (21 pages)

p-1022 Minimum Retroreflectivity Levels for Blue and Brown Traffic Signs (FHWA April 2008) This report contains information on the recommendations for the minimum maintained retroreflectivity levels for traffic signs with blue and brown backgrounds. This report also includes investigation on retroreflectivity levels for the brown and blue traffic signs with glare from headlights and fixed lighting upon them. (37 pages)

p-2054 Guide for Accommodating Utilities Within Right-of-Way for Counties and Small Cities in Kansas (Kansas LTAP & Kansas University Transportation Center March 2007) This guide examines current issues and practices in Kansas and provides general recommendations that cities and counties can use to manage their right-of-way in the best interest of the traveling public, public agencies, and utilities. This guide benefits counties and cities that do not have regulations in place, or that need to update these regulations and procedures. (34 pages)

Jerry Foreman, Custer County Road Department Supervisor, Bids Farewell

After thirty years as County Road Supervisor with Custer County, Jerry Foreman decided to retire from this position. However, he has not left the workforce! He recently accepted a position as Heavy Equipment Instructor at Miles City Community College.

He has greatly enjoyed all the friendships he has made over the years through Montana Association of County Road Supervisors (MACRS) and serving as MACRS Secretary/Treasurer. He also learned a tremendous amount from Steve Jenkins and the LTAP Center.

"I can honestly say that I have advanced in my expertise and confidence as a result of LTAP and MACRS. I will always be grateful for that," quoted Jerry.



Foreman stated that Jerry Backlund, Custer County Road Department Foreman, has stepped into his supervisor's position and will be providing the same high quality service. He has worked with Backlund over the years and knows the level of commitment Backlund has to the county.

Our hats off to Jerry for his dedication and sharing his great sense of humor!



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Bozeman, MT 59717-3910

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Editorial Contributions Welcome

LTAP welcomes contributions to *LTAP MATTERS*. Those wishing to submit relevant material to be published in the next newsletter can submit their ideas and articles to:

Michele Beck
Local Technical Assistance Program
Faculty Court Unit 22
PO Box 173910
Montana State University-Bozeman
Bozeman, M 59717-3910

(800) 541-6671 or (406) 994-6100
Fax: (406) 994-5333
email: mbeck@coe.montana.edu

The Local Technical Assistance Program Newsletter, *LTAP MATTERS*, is published quarterly. Funding for this program is provided by the Federal Highway Administration through the Montana Department of Transportation, Montana State University and a portion of Montana's gas tax revenues.

This newsletter is designed to keep you informed about new publications, techniques, and new training opportunities that may be helpful to you and your community.

Present and past issues are available at www.coe.montana.edu/ltap or by calling 1-800-541-6671.

Approximately 1200 copies of this public document were published at an estimated cost of \$1.37 per copy for a total cost of \$2,100 which includes \$1,700 for printing and \$400 for distribution.

LTAP attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program or activity. Alternative accessible formats of this document will be provided upon request.

Please send us any comments or concerns you may have regarding this newsletter with your name and address in order that we may respond in a timely manner.