

# LTAP MATTERS

Montana's Answers To Technical Education of Roads & Streets  
Vol. 31, No. 3

Summer 2013

<i>From the Director</i>	2
<i>Matt Richie, Roads Scholar</i>	3
<i>Mowing Safety</i>	3
<i>SB 161 - Safer School Zones</i>	4
<i>MDT HSIP</i>	5
<i>FHWA New Website - Systemic</i>	5
<i>Calendar of Events</i>	6&7
<i>Jefferson/Madison Joint Efforts</i>	8-9
<i>Montana County Ferry Crossings</i>	10
<i>Montana LTAP Library</i>	11



**MONTANA**  
STATE UNIVERSITY

Local Technical  
Assistance Program

# From Montana LTAP Director

In 2008, Montana LTAP assisted Montana Association of County Road Supervisors (MACRS) in conducting road condition inventories of all county roads with the use of PASER. This simplified road inventory procedure uses a visual approach and rates roads from 1 to 5, with 1 being almost impassable and 5 being new construction. Although PASER's acronym stands for PAVement Surface Evaluation and Rating, PASER actually has guides for asphalt, brick and block, concrete, sealcoat, unimproved roads, and gravel. From the baseline established in 2008, it is time to look at the Montana county roads again. Two of the major reasons for conducting these inventories:

1. By having an inventory of county's road conditions, road supervisors can show better management of their assets—their county roads. These inventories are critical in making decisions on location of repair and maintenance. Road supervisors will be applying science behind their maintenance rationale and justification of spending tax dollars for particular areas of road maintenance.

As the PASER manual indicates, "Developing an overall plan for the roadway system lets local agencies develop budgets and plan for future needs. When detailed information is available, local officials can respond more effectively to questions from the public. A planned approach is easier to explain and receives greater public support."

2. By having actual data indicating the level of where county roads are on a scale of 1 to 5, road supervisors will be better prepared to request funding from oil, mining, timber, and/or agricultural road users. These heavy demands on county roads deplete the county coffers with continual maintenance. Road supervisors need data to back up funding requests.

Important factors in evaluating a gravel road:

- **Crown**
- **Drainage: Roadside ditches and under-road culverts need to carry water away from road**
- **Gravel Layer: Adequate thickness & quality of gravel to carry traffic loads**
- **Surface Deformation: Washboarding, potholes & ruts**
- **Surface Defects: Dust and loose aggregate**

Montana LTAP will be providing PASER training with PASER Gravel Roads manuals at several venues this fall including the MACRS Fall District meetings.

An electronic version of the Gravel Roads PASER manual is available at this link: [http://epdfiles.engr.wisc.edu/pdf\\_web\\_files/tic/manuals/Gravel-PASER\\_02.pdf](http://epdfiles.engr.wisc.edu/pdf_web_files/tic/manuals/Gravel-PASER_02.pdf)

Pavement Preservation is also an important consideration for cities and towns. Recently I met with the cities of Glendive and Sidney to discuss PASER for their pavement management. In the near future, I will be meeting with the cities of Hamilton and Columbia Falls to assist with development of pavement management under the PASER program. Because of more variables with pavement, these roads are rated from one to ten, providing opportunities for funding based on specified data collection on their roadways.

Travel safe this summer and look forward to hearing from you at our monthly webinars and at our great training opportunities this fall,

*Steve Jenkins*, Montana LTAP Director



## Local Technical Assistance Program

### Steven Jenkins, P.E.

Director  
stevenj(at)coe.montana.edu

### Genevieve Houska

Administrative Associate/  
Conference Coordinator  
galbert(at)coe.montana.edu

### Michele Beck

Graphic Designer/Librarian  
mbeck(at)coe.montana.edu



LTAP Matters is published by the Local Technical Assistance Program. LTAP is located at Western Transportation Institute, College of Engineering, Montana State University, Bozeman, Montana.

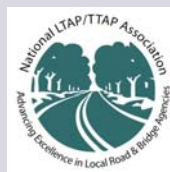
We can be reached at the following:

Phone: (800) 541-6671 or (406) 994-6100  
FAX: (406) 994-5333  
E-Mail: MTLTAP(at)coe.montana.edu

Our website lists upcoming training courses, registration forms, library information, our contact information, newsletters, various links, and MACRS information. Please go to: <http://www.coe.montana.edu/ltapv2/index.html>

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.



## MT LTAP ADVISORY COMMITTEE MEMBERS

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

**Russ Albers**  
Chouteau County

**Steve Albert**  
WTI Director

**Harold Blattie**  
MACo

**Kris Christensen**  
Montana Dept of  
Transportation

**Thomas Danenhower**  
MMIA

**Kelly Elser**  
Town of Ennis

**Eric Griffin**  
Lewis and Clark County

**Justun Juelfs**  
Montana Dept of  
Transportation

**Alec Hansen**  
Montana League of  
Cities & Towns

**Phil Hauck**  
City of Helena

**Russ Huotari**  
Richland County

**David Mumford**  
City of Billings

**Jim Muskovich**  
MACo

**Jim Rearden**  
City of Great Falls

**Bob Seliskar**  
Federal Highway  
Administration

**John Van Delinder**  
City of Bozeman

Front Page Photo: Virgelle Ferry Crossing on Missouri River by Michele Beck



## City of Hamilton - Roads Scholar

Matt Richie, City of Hamilton Street Department, recently received his Montana LTAP Roads Scholar Level I. Montana LTAP courses and workshops Richie attended were Signs, Gravel Roads Maintenance, PASER and Surveying, several Snow Rodeos and Equipment Training, Asphalt Institute, Work Zone Flagging Certification, Winter Maintenance and Winter Survival, Montana LTAP Safety Congress, and Montana LTAP Leadership with Steve Jenkins and Mark Willmarth.

“Matt participates and adds to discussions at our workshops,” MT LTAP Director Steve Jenkins noted. “He is a knowledgeable individual who strives to improve his understanding of safety concerns in the work place.”

As of May 2013, Montana LTAP has awarded a total of 209 Roads Scholars Level I since the inception of the program in 2001. The first Road Masters, Level II, were awarded this spring to nine recipients. For more information about the Montana LTAP Roads Scholar program, go to our website: <http://www.coe.montana.edu/ltapv2/resources/roadsscholar/index.html>



L-R: Matt Richie, City of Hamilton Street Department, and Keith Smith, City of Hamilton Public Works Director

## Montana LTAP Safety Webinar - Weed Mowing Safety

In May, Montana LTAP provided the monthly webinar refresher on Weed Mowing Safety. This webinar along with many other MT LTAP webinars have been recorded and are available for viewing at <http://www.coe.montana.edu/ltapv2/resources/webinars/index.html>.

One of the Weed Mowing participants, Thomas Dannenhower, Montana Municipal Interlocal

Authority, noted they instruct their workforce to treat the mower decks like a LOTO (lockout-tagout) with cribbing/stabilization in addition to de-powering. This is due to hydraulic system leaks and failures as well as the decks settling on employees. They had a fatal situation a number of years ago.

Dannenhower said their most common claim from mowing and weed eating operations is liability claims for rocks being flung at vehicles and vehicle windshields from machinery. Workers need to allow for rock throws when proximal to vehicles and mow in such a way rock throws will not go toward parked vehicles. This procedure also needs to be followed when performing weed eating operations.

*“We really appreciate this type of training possibility. Due to our location in the far north east corner of the state, it is difficult to afford travel costs to get to training opportunities for our employees. We look forward to attending more of our monthly webinars.” Sheridan County Commissioner Bill Nyby*



Unfortunately, Dannenhower noted their most common worker compensation claim from mowers is eye injuries from not using proper eye protection. Jenkins concurred the importance of wearing personal protection equipment such as hard hat, safety glasses, and reflective safety vest. Other safety items discussed were safety work boots, hearing protection, gloves, dust mask, and close fitting clothing. Jenkins noted an unguarded PTO shaft can wrap clothing into it at the rate of 8 feet per second.

Due to hilly areas, Jenkins reviewed the importance of having ROPS (roll over protection) with safety shields to guard against thrown objects. He also stressed the necessity to buckle up!

### Other concerns included:

- Heat Exhaustion and the importance of taking short breaks, wearing protective clothing from sun and heat; as well as drinking plenty of fluids.
- Keep first aid kit securely attached and updated.
- The fire extinguisher needs to be kept on the mower at all times and in good working order. Under frame exhaust on mowers is a fire hazard. Also remind everyone that smoking or having an open flame near the tractor and mower is very dangerous.
- To avoid equipment creating brush fires, keep slip clutches properly adjusted to prevent equipment from overheating. Keep clippings and other flammable debris from collecting near drive-lines, slip clutches, or gearboxes.

Bottom line on all safety procedures -- YOU are responsible for being SAFE! ❖

# Small Town, Small Change, Big Impact

Reprinted with permission story and photo by Roger Dey, Editor, Blackfoot Valley Dispatch



Standing L-R: C. Gordon Morris, Chris McNally, Bill Frisbee; Seated L-R: Mitch Tropila, Governor Steve Bullock, and Christy Clark

## SB 161 Opens Door to Safer School Zones Across State

"I can't believe it's finally happening," Chris McNally said as she stood in the doorway of the Montana Governor's office. McNally, a former music teacher and crossing guard at the Lincoln Public School made the trip to the capitol building in Helena Monday, April 22 to see Governor Steve Bullock sign Senate Bill 161 into law.

The bill was the culmination of McNally's efforts to find a way to lower the speed limit on Highway 200 near the school. Through her years of helping Lincoln school children cross the highway safely, she had seen at least one accident with a pedestrian near the school and several near misses by cars, trucks and semi's traveling at excessive speeds through the 30-mile-per-hour zone.

McNally was greeted with a warm hug when democrat Senator Mitch Tropila from Great Falls, who sponsored the bill in the senate, arrived. They were joined by republican Representative Christy Clark of Choteau who carried the bill to the House of Representatives; Bill Frisbee, chairman of the Upper Blackfoot Valley Community Council; and C. "Gordon" Morris, a lobbyist for Lewis and Clark County. Andy Hunthausen, Lewis and Clark County commissioner who worked with McNally and was instrumental in getting the Montana Association of Counties to support the measure, was unable to attend the signing.

With Bullock's signature, the bill added one simple sentence to Section 61-8-309 of Montana Code Annotated: "In the case of a school zone adjacent to a state highway, the commission is not required to base its speed limit determination solely upon the results of the engineering and traffic investigation."

The change allows Montana Department of Transportation to take public comment into account when it comes to speed limits on state highways next to school zones. School zones in many rural communities are adjacent to state highways and the change allows those communities to work with MDT to have those speed limits changed.

"This is the very beginning," Frisbee said. "Now the difficult part comes. That is getting people to communicate with MDT. The next step is to contact MDT, and probably request a speed study, then provide comment to them. We're going to have to get the citizens of Lincoln to stand up and be heard."

The issue of enforcement will also have to be addressed once MDT does lower the speed limit. It has been pointed out in the past that a lower speed limit will only be effective if it's enforced. Despite the installation two years ago of electronic signs in the school zone that display a vehicle's speed, many can still be seen on a regular basis speeding through the 30-mph zone in excess of 40 mph.

Looking beyond the school zone, Frisbee sees the success of SB 161 a template that might be followed in the future to lower speed limits on stretches of state highways that are home to facilities that might not meet the existing criteria for special speed zones. Locally, he points to the Parker Medical Center and the Lincoln Volunteer Ambulance facility as prime examples of an area where the speed limit on the highway should be lowered for the safety of both medical center patients and the ambulance crews.



## HSIP Funding for Local Agencies

At the recent spring MACRS (Montana Association of County Road Supervisors) conference, Montana Department of Transportation Director Mike Tooley said local agencies can apply for HSIP (Highway Safety Improvement Program) funding. The application process is provided at this MDT website: [http://www.mdt.mt.gov/publications/docs/forms/hsip\\_application.pdf](http://www.mdt.mt.gov/publications/docs/forms/hsip_application.pdf)

### Highlights from this website:

The Highway Safety Improvement Program (HSIP) is an element of the Montana Department of Transportation's (MDT) Comprehensive Highway Safety Plan. The HSIP funds infrastructure-related highway safety improvements. Some examples of the types of projects addressed with these funds are signing, striping, delineation, guardrail installation, slope flattening, intersection improvements, and roadway realignment.

MDT's Safety Engineering Section reviews investigated accidents of record and sites submitted by local agencies in order to develop a priority list of locations that could participate in this program.

Ninety percent of the money for safety improvements at these locations comes from the federal government. Ten percent comes from the state or local governments.

Any highway safety improvement project on any public road or publicly owned bicycle or pedestrian pathway or trail is eligible for HSIP funding. The proposed improvement must not be a maintenance function.

High-hazard locations are identified by accident trends based on the number of crashes, accident rates, severity of crashes, or a combination of these factors.

Applicants (city or county local road agencies) may submit up to five locations annually. These sites will be included in the overall statewide ranking and priority listing.

Local road agencies will need to include a safety priority list; provide an accident analysis and traffic information (if available); and identify proposed improvements, including any site constraints (right-of-way acquisition, utility relocations, etc.).

After MDT receives the applications from local road agencies, the Safety Engineering Section develops an annual list of priorities according to a benefit/cost ratio analysis. MDT then develops a program for improvements subject to availability of funds and a benefit/cost ratio greater than 1.0. The Transportation Commission approves the list of safety improvement projects.

For more information on Montana's Comprehensive Highway Safety Plan information:

<http://www.mdt.mt.gov/safety/plans-programs/chsp.shtml>

FHWA Safety website provided the following information from a Peer-to-Peer Exchange May 5, 2011, with DOT's from Idaho, Montana, North Dakota, South Dakota, and Wyoming: [http://safety.fhwa.dot.gov/p2p/mt\\_hsip/](http://safety.fhwa.dot.gov/p2p/mt_hsip/)

*MDT maintains 12,000 of Montana's 75,000 public road miles. Ten percent of MDT-maintained roads are located within tribal reservations. MDT receives \$10.5 million in annual HSIP funding, which is administered through the Traffic and Safety Bureau at DOT headquarters. This funding includes \$750,000 from the High Risk Rural Roads Program (HRRRP) and \$3.6 million from the Railway-Highway Grade Crossing Program (RHGCP).* ❖

---

## New Website Promotes Systemic Safety Improvements

*Permission granted from Kansas LTAP, from their Newsletter, Fall 2012, by Lisa Harris*

Highway safety improvement projects are designed to improve safety by minimizing or eliminating risk to roadway users. Rather than managing risk at certain locations, a systemic approach takes a broader view and looks at risk across an entire roadway system. A system-based approach acknowledges crashes alone are not always sufficient to determine what countermeasures to implement, particularly on low volume local and rural roadways where crash densities are lower, and in many urban areas particularly those where there are conflicts between vehicles and vulnerable road users (pedestrians, bicyclists, and motorcyclists).

FHWA's Office of Safety recently launched a new website dedicated to the systemic approach to safety. The website, A Systemic Approach to Safety – Using Risk to Drive Action, is now available at <http://safety.fhwa.dot.gov/systemic>.

The website:

- outlines the step-by-step systemic safety planning process with supporting examples
- offers a list of potential risk factors,
- presents case studies of the systemic approach to safety in practice, and
- provides additional resources to support systemic planning efforts, including information on upcoming events.

One of the case studies comes from Missouri that has allocated almost two-thirds of its HSIP funds to system-wide improvements. Projects include installation of shoulder and centerline rumble strips/stripes; improving roadway visibility features (pavement markings, signs, lighting, etc); adding roadway shoulders; removing and/or shielding fixed objects along roadside right of way; and improving curve recognition through the use of signs, markings, and pavement treatments.

At the FHWA website, a systemic safety project selection tool will be available soon. The tool will include a method for balancing systemic and spot safety improvement projects – and a mechanism to quantify systemic safety improvement benefits.

FHWA is encouraging state and local agencies to share their experiences implementing systemic safety improvements at <http://rspcb.safety.fhwa.dot.gov/noteworthy/default.aspx>. If you have any questions about the website, contact Karen Scurry, P.E., FHWA Office of Safety, at (609) 637-4207 or [karen.scurry@dot.gov](mailto:karen.scurry@dot.gov). ❖

*Source: Karen Scurry, FHWA.*

# Calendar of Events • July 2013 - December 2013

## July 2013

S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

4: Fourth of July Holiday - Offices Closed

16: MT LTAP Webinar: Bites! Snakes & Ticks -7:30-8:00am

22-25: National LTAP/TTAP Summer Conference, Boise, ID

*Training on Request:*

*Summer Survival*

*Hand Safety*

*Slips, Trips, & Falls*

## August 2013

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

20: MT LTAP Webinar: Working in the Heat - 7:30-8:00am

25-28: APWA International Public Works Congress & Exposition, Chicago, IL

*Training on Request:*

*Forklift*

*Sign Safety*

*Road Audits*

## September 2013

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

2: Labor Day Holiday - Offices Closed

11&12: 24th Annual Equipment Safety Training and Snow Rodeo - Billings, MT (MT LTAP) Brochure available in July

17: MT LTAP Safety Webinar 7:30am-8:00am

22-26: MACo 104th Annual Conference, Colonial Hotel, Helena, MT

www.mtcounties.org or MACo's Karen Houston 406-449-4360

**SAVE THE DATES: September 11 & 12  
24th Annual Snow Rodeo - Billings, MT**

## October 2013

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

MACRS Fall District Meetings: 1 - Conrad; 7 - Butte; 8 - Missoula; 16 - Billings; 17 - Glendive

9-11: 82nd League of Cities & Towns - Colonial Hotel, Helena, MT

9: Public Works Directors Meeting - Colonial Hotel, Helena, MT

11: Put On The Brakes Day - 13th Anniversary (go to: www.brakesonfatalities.org)

14: Columbus Day - Observed (Montana LTAP Offices Open)

22: MT LTAP Safety Webinar 7:30am-8:00am

TBA: 28th Regional Local Road Coordinators Conference, Rapid City, SD

## November 2013

S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

11: Veterans' Day - Offices Closed

13: LTAP Leadership - 8-noon; Lewistown, MT

13 & 14: MACRS Planning Meeting, 1pm - 5pm on 13th and 8am - noon on 14th; Yogo Inn, Lewistown, MT

19: MT LTAP Safety Webinar - 7:30am - 8:00am

28 - 29: Thanksgiving Holiday - Offices Closed

*Some dates and locations are subject to change.*

*Call Genevieve Houska, LTAP, 1-800-541-6671 to confirm.*

*According to the National Highway Traffic Safety Administration, there were an estimated 5,338,000 reported traffic crashes in 2011, resulting in more than 32,000 fatalities and 2,217,000 injuries. DRIVE SAFELY!*

## December 2013

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

3: LTAP Leadership - Missoula, MT

4: LTAP Winter Safety - Missoula, MT

17: MT LTAP Safety Webinar - 7:30am-8:00am

25: Christmas Holiday - Offices Closed

### Safety Meeting Webinars from Montana LTAP

July 16, 2013 - Snake & Tick Bites - First Aid

August 20, 2013 - Working in Heat/Wildland Fires

Monthly Thirty-Minute Safety Webinars held at 7:30am on Tuesday Mornings

Call Montana LTAP at 1-800-541-6671 for more information!

# Calendar of Events • January 2014 - June 2014

## January 2014

S	M	T	W	Th	F	S
			①	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	②⑩	②①	22	23	24	25
26	②⑦	28	29	③⑩	31	

- 1: New Year's Day - MT LTAP Offices Closed  
 12-16: Transportation Research Board, Washington, DC  
 20: Martin Luther King Day - Offices Closed  
**21: MT LTAP Safety Webinar - 7:30am-8:00am**  
**27-30:11th Annual Safety Congress - Great Falls, MT (MT LTAP):**  
 27am: Work Zone Tech  
 27pm: Traffic Control Supervisor  
 28: Traffic Control Supervisor  
 29: Workforce Safety Training  
 30: Workforce Safety Training

## February 2014

S	M	T	W	Th	F	S
						1
2	3	④	5	6	7	8
9	10	11	12	13	14	15
16	①⑦	18	19	20	21	22
23	24	②⑤	26	27	28	

- 4: Asphalt Institute - Helena, MT**  
 17: President's Day - Observed (Montana LTAP Offices Open)  
**25: MT LTAP Safety Webinar - 7:30am-8:00am**

## March 2014

S	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	①⑦	①⑧	①⑨	②⑩	②①	22
23	②④	25	26	27	28	29
30	31					

- 10-14: MSU Spring Break  
**17: Flagging Certification Course - Butte (MT LTAP)**  
**18: Flagging Certification Course - Great Falls(MT LTAP)**  
**19: Flagging Certification Course - Havre (MT LTAP)**  
**20: Flagging Certification Course - Billings (MT LTAP)**  
**21: Flagging Certification Course - Billings (MT LTAP)**  
**24-27: MACRS 34th Annual Conference** Heritage Inn, Great Falls, MT (MT LTAP)

## April 2014

S	M	T	W	Th	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	①⑤	16	17	18	19
20	②①	②②	②③	②④	25	26
27	28	29	30			

- 7-11: National Work Zone Awareness Week (FHWA)  
**15: MT LTAP Safety Webinar - 7:30am-8:00am**  
 21-25: NACE 2014, Baton Rouge, LA  
**21-22: Gravel Roads - Bozeman (MT LTAP)**  
**23-24: Gravel Roads - Ft. Benton (MT LTAP)**

## May 2014

S	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	①③	①④	①⑤	16	17
18	19	②⑩	21	22	23	24
25	②⑥	27	28	29	30	31

- 4-7: APWA North American Snow Conference - Cincinnati, Ohio  
 More info: <http://www.apwa.net/Snow>  
**13: Work Zone Flagging Course - Miles City (MT LTAP)**  
**14: Work Zone Flagging Course - Glendive (MT LTAP)**  
**15: Work Zone Flagging Course - Wolf Point (MT LTAP)**  
**20: MT LTAP Safety Webinar - 7:30am-8:00am**  
 26: Memorial Day - Offices Closed  
 TBA: LTAP Region 7 Meeting

## June 2014

S	M	T	W	Th	F	S
1	2	③	④	⑤	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	②④	25	26	27	28
29	30					

- 3: Work Zone Flagging Course - Bozeman (MT LTAP)**  
**4: MACRS Executive Meeting - Bozeman**  
**5: Montana LTAP Annual Advisory Board Meeting - Bozeman**  
**24: MT LTAP Safety Webinar - 7:30am-8:00am**

**Training Opportunities at Montana LTAP Website:**  
<http://www.coe.montana.edu/ltapv2/training/index.html>

*Some dates and locations are subject to change.  
 Call Genevieve Houska, LTAP, 1-800-541-6671 to confirm.*



# Madison & Jefferson Counties Joint Effort

Permission granted from Whitehall Ledger by Greg Corr, Ledger Publisher, for information from their article.



Harrison Lake Road, Madison County

Madison and Jefferson county commissioners have developed a good relationship over the years. Those good relations led to the recent joint effort where county road crews from both counties worked together on two separate projects. One was to pave a new three-and-a-half-mile stretch of road from Harrison to Harrison Lake State Park in Madison County. The other was hauling gravel to Whitetail Road in Jefferson County.

Madison County Commissioner Dan Happel noted the road paving was a major improvement for a highly traveled road in his district. Because Madison County had not completed many road projects using recycled asphalt millings, and Jefferson County had, the occasion prompted Madison Road District 2 to seek Jefferson's help in building the newly paved lake road.

Happel said Jefferson's road crew assisted Madison's crew for a week to ten days. He said the "cross cooperation and team spirit" was great.



Harrison Lake Road, Madison County, Shane Escott - Backhoe



LtoR: RJ Lowder, Madison County (with hammer); Dick Capp, Jefferson County (orange vest); Fred Feller, Jefferson County (facing camera); Dennis Nelson, Madison County (far right).





## Joint Effort (Cont'd from page 8)



"It just makes sense to work together to maximize our expertise and equipment in areas where each county has a particular advantage, it's a win-win for everyone, especially the taxpayers. My hat is off to Joe Carter, the Jefferson County crew and the Jefferson County Commissioners for their willingness to work cross-cooperatively," Happel said.

Jefferson County Commission Chair Leonard Wortman said it saved them a tremendous amount of time on the Whitetail Road Project. Trading out work on a dollar-for-dollar basis was "really a win-win for both of us," Wortman said.

*Harrison Lake Road: From Madison County - Shane Escott (standing) & Forrest Armstrong, Motorgrader Operator*

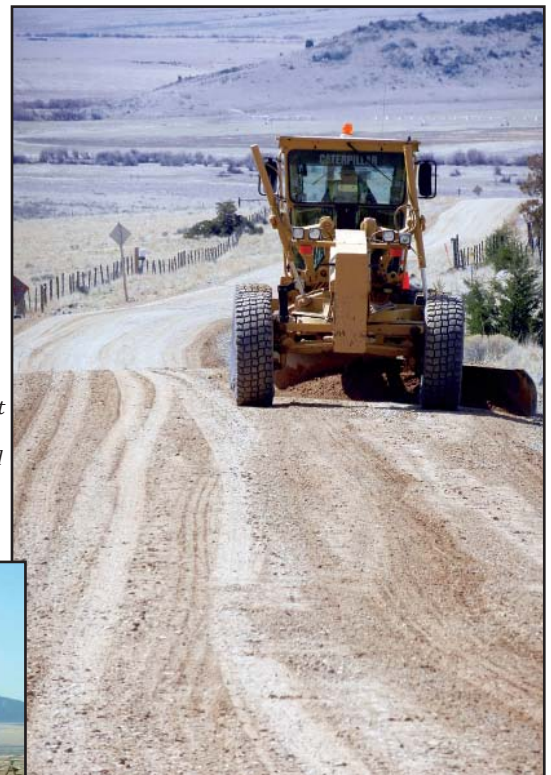
The used millings came from a Montana DOT highway resurfacing project east of Norris on Hwy 84. As part of the contract arrangement between Montana DOT and Schellinger Construction of Kalispell, Madison County received the millings transported to the site at no cost. Their only expense was labor to lay down the millings, roll them, and then return this summer to chip-seal the Lake Road.

In turn, Madison County helped Jefferson County by sending five trucks and drivers to help haul gravel material to the Whitetail Road project north of Whitehall in Jefferson County.

Happel said as far as he knows this is the first time the two counties have worked jointly on a project like this.



*Photo - Right: Fred Feller, Jefferson County Road Department laying out gravel on Whitetail Road*



*Trucks being loaded with gravel at pit southwest of Whitehall.*





# Three Ferry Crossings in Montana Counties



Chouteau County Road Department launches Carter Ferry this April. LtoR foreground: Wes Skerritt, Brian Perkins, Russ Albers. Man operating pulley in red jacket - Lawrence Wright. Man behind truck - Marvin Brodock. The Carter Ferry was established in 1917. Photo by Gayle Fisher, Central Montana's Russell Country Director.

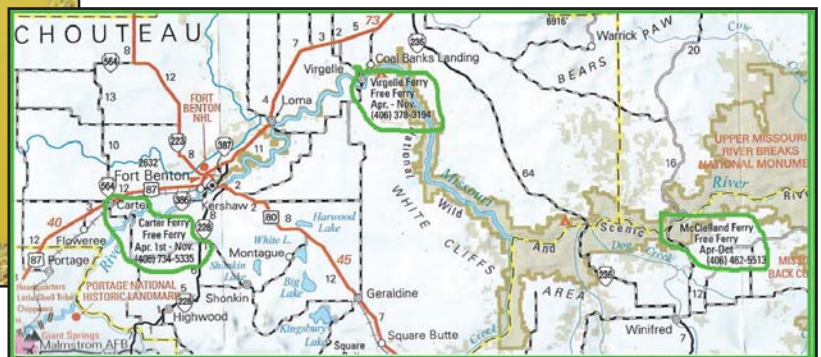
Montana only has three remaining operating ferry crossings: two in Chouteau County, the Virgelle crossing and the Carter crossing. The other ferry crossing is the McClelland, locally referred to as the Stafford ferry. This ferry is shared by Blaine and Fergus County. In 2004 three new ferryboats were added to Montana's Missouri River fleet. This particular project included funding through a Montana congressional delegation with Blaine, Chouteau, Fergus counties and MDT.



Virgelle Ferry Crossing Info

By 1906 efficient and cost-effective bridges were being built and eventually many of the ferries ceased to exist. These three remaining ferries are funded by the county governments they reside in and are free to the public. The capacity is one truck (properly balanced) or two smaller vehicles, opening in April and closing in November. ❖

At one time, there were close to twenty-five ferry operations in Montana with the first Missouri River ferry starting operation in 1863. A few were private for ranches and some were open to the public with the state legislature charging a set fee. These early ferries used the river's own current to power them back and forth.



## Information Resources:

- Montana Pioneer & Classic Auto Club - <http://montanapioneerandclassicautoclub.org/ferriesbridges/ferriestobridges.html>
- Montana Twilight - <http://www.montanaheritage.com/stilltiny.html>
- www.mdt.state.mt.us Newsline





# Montana LTAP Library

Welcome to the LTAP Lending Library where publications, videos, DVD's, and software may be borrowed for a two-week period. We have a limit of three videotapes or DVD's for a rent-free two-week period. Some publications are free or for a nominal charge upon request.

For information or checkout procedures, please call Genevieve Albert or Michele Beck, LTAP, 1-800-541-6671. If you have computer access, please e-mail us: [mtltap@coe.montana.edu](mailto:mtltap@coe.montana.edu).

We have new lists for the library publications, software, DVD's, and videos at our web site, just click on Resources: <http://www.coe.montana.edu/ltapv2/>

At this web site, you can also keep track of upcoming workshops, past and present newsletters, and workshop announcements. Our 2013 Needs Assessment Survey is available at this web site. Thank you in advance for taking time to complete it.

## New Publications

**p-49 Guide for In-Place Treatment of Wood in Historic Covered and Modern Bridges** (USFS March 2012) This guide describes procedures for selecting and applying chemical treatments to prevent or arrest bio-deterioration or fire to protect covered bridges or any timber structures. It is intended for use by inspectors, maintenance and preservation staff. (43 pages) [http://www.fpl.fs.fed.us/documnts/fplgtr/fpl\\_gtr205.pdf](http://www.fpl.fs.fed.us/documnts/fplgtr/fpl_gtr205.pdf)

**p-395.10 Relating Ride Quality and Structural Adequacy for Pavement Rehabilitation/Design Decisions** (LTPP November 2012) This project was intended to develop and document a mechanism to include both ride quality and structural adequacy values within the context of current network-level pavement management system practices for highway agency implementation to ensure smooth pavements that are also structurally adequate. (179 pages) <http://www.fhwa.dot.gov/publications/research/infrastructure/pavements/ltpp/12035/12035.pdf>

**p-395.20 Performance Testing for Superpave and Structural Validation** (FHWA November 2012) The primary objective of this full-scale accelerated pavement testing was to evaluate the performance of unmodified and polymer modified asphalt binders and to recommend improved specification tests over existing Superior PERforming Asphalt PAVement (Superpave) binder performance grading methodologies. <http://www.fhwa.dot.gov/publications/research/infrastructure/pavements/11045/11045.pdf>

**p-395.30 Curl and Warp Analysis of the LTPP SPS-2 Site in Arizona** (LTPP Dec 2012) This study examined the roughness and roughness progression of 21 test sections on the LTPP SPS-2 site in Arizona over the first 16 years of the experiment. This study applied objective profile analyses to quantify the level of curl and warp on each section (110 Pages) <http://www.fhwa.dot.gov/publications/research/infrastructure/pavements/ltpp/12068/12068.pdf>

**p-395.40 Simplified Techniques for Evaluation and Interpretation of Pavement Deflections for Network-Level Analysis** (LTPP Dec 2012) The objective of this study was to develop an approach for incorporating techniques used in interpret and evaluate deflection data for network-level pavement management system (PMS) applications (198 Pages) <http://www.fhwa.dot.gov/publications/research/infrastructure/pavements/ltpp/12025/12025.pdf>

**P-723 Unpaved Road Chemical Treatments, State of the Practice Survey (FHWA January 2013)** This report documents survey results regarding the state of the practice of using chemical treatments on unpaved roads. It provides insights into road manager choices and challenges and is useful supplementary reading to the "Unpaved Road Dust Management, A Successful Practitioner's Handbook" by Jones et al. (p-724) Available electronically only: <http://www.cflhd.gov/programs/techDevelopment/materials/DustSurvey/documents/UnpavedRoadChemicalTreatmentsStateOfThePracticeSurvey.pdf>

**p-724 Unpaved Road Dust Management, A successful Practitioner's Handbook** (FHWA January 2013) This handbook provides broad programmatic aspects of unpaved road management. It is based on observations made during a national scan tour and provides useful and insightful excerpts of real-world examples and includes practical how-to instructions for determining what type of treatment may be needed for different situations. Available electronically only: <http://www.cflhd.gov/programs/techDevelopment/materials/Handbook/documents/>

**p-3545 Recent International Activity in Cooperative Vehicle-Highway Automation Systems** (FHWA December 2012) This report summarizes the current state of the art in cooperative vehicle-highway automation systems in Europe and Asia based on a series of meetings, demonstrations, and site visits, combined with the results of literature review. (89 pages) <http://www.fhwa.dot.gov/advancedresearch/pubs/12033/12033.pdf>

**p-3546 Literature Review on Recent International Activity in Cooperative Vehicle-Highway Automation Systems** (FHWA December 2012) This literature review supports the report, Recent International Activity in Cooperative Vehicle-Highway Automation Systems. This review covers work performed in Europe and Japan, with application to transit buses, heavy trucks, and passenger cars. (28 pages) <http://www.fhwa.dot.gov/advancedresearch/pubs/13025/13025.pdf>

## New DVDs

**DVD 652 Culvert Replacement** (Ohio DOT 2012) Ohio DOT provides information of two culvert replacement sites at paved two-lane road locations. Discussion includes use of equipment, importance of shielding, and replacement of culvert type. At one site, they used low strength mortar to save installation time. At the other site, discussion focused on 4-6 inch lifts of both compacting materials and asphalt. (19 minutes)



Montana LTAP  
PO Box 173910  
Bozeman, MT 59717-3910

Presort Standard  
U.S. Postage  
PAID  
Permit No. 69  
Bozeman, MT 59718

### 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  
Montana State University  
PO Box 173910  
Bozeman, MT 59717-3910

*Street Address:*  
*MT LTAP*  
2327 University Way, Room 230  
Bozeman, MT 59715

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

**LTAP MATTERS** is published quarterly. Funding for this program is provided by the Federal Highway Administration, 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 for you and your community.

Present and past issues are available at <http://www.coe.montana.edu/ltapv2/newsletter/index.html> or by calling 1-800-541-6671.

Approximately 700 copies of this public document were published at an estimated cost of \$2.03 per copy for a total cost of \$1,147.78 which includes \$1,031.99 for printing and \$385.79 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.