

# **Montana**

## **Local Technical Assistance Program**

Work Plan and Budget  
July 1, 2018 – June 30, 2019

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## Table of Contents

Executive Summary.....	1
Introduction .....	2
Montana LTAP Professional Staff .....	6
Program Development.....	7
Customer Needs Assessments and Program Development.....	7
Questionnaires and Surveys: .....	7
Key Contact Information Interviews: .....	7
Group Assessment Methods: .....	7
Mapping.....	7
Formal Needs Assessment Survey conducted in 2018.....	8
Other Inputs: Training Topics Requested .....	10
Leveraging capabilities and partnerships: <i>LTAP Program Growth</i> .....	11
Partnerships.....	11
o Safety 365 – A Safety Workshop for Local Governments .....	12
o Roadside Safety Basics for Local Agencies .....	12
o Maintaining a Safer Roadway.....	12
Four Focus Areas.....	14
Safety Focus Area.....	14
Infrastructure Management Focus Area .....	15
Workforce Development Focus Area .....	15
Organizational Excellence .....	16
Library Resources and Distance Learning .....	17
Additional Services.....	17
Future Initiatives.....	18
Budget .....	19
Appendix A: History.....	1
Appendix B: Program Assessment Report.....	2
Appendix C: LTAP Director .....	6
Appendix D: Needs Assessment .....	7
Appendix E: Distance Learning Lessons .....	10
Appendix F: 2018-2019 Montana LTAP Tentative Workshop Schedule.....	11
Appendix G: Needs Assessment Survey Topics in.....	12
2018-2019 Workshop Schedule.....	12
Appendix H: Summary of Work Tasks.....	13

## Figures and Tables

Figure 1. Four Focus Areas.....	3
Figure 2. Stakeholders Intersection of Interests.....	4
Figure 3. Montana LTAP 2017 - 2018 Workshop Map.....	5
Figure 4. Program Inputs .....	8
Table 1. Breakdown of Budget by Focus Area .....	20
Table 2. Breakdown of Budget by Source.....	21

## Executive Summary

The Local Technical Assistance Program (LTAP) has a 45-year proven track record (Since 1983) as an outreach program for the transportation workforce and has become a trusted resource for local agencies seeking training and technical assistance.

Montana LTAP's ability to efficiently and effectively transfer technology and information through courses and relationships to our rural and urban partners and customers is its primary measure of success. We strive to keep a full calendar of training, outreach, communication and technical assistance throughout the year. Our reach is geographically broad, covering the entire State of Montana and deep with well in excess of 30 classes (subjects) that we regularly deliver to our customers.

### 2017-18 Montana LTAP Training Opportunities

- 2751 Participants Attended
- 50 Training Sessions
- 242 Training Hours
- 10,106 Participant Hours

This past year Montana LTAP covered 50 training sessions in presentations attended by 2751 participants. With regards to training hours, Montana LTAP provided 300 hours of training, corresponding to 10,106 participant hours of training.

### Roads Scholar Program:

- 2,570 Participants
- 2018: 26 Road Scholars Awarded
- Total Scholars to Date: 355
- Total Road Masters: 15

LTAP enables local transportation workers to study road fundamentals, safety, drainage, snow and ice removal, and other topics with the goal of becoming expert managers. Two particularly successful means for promoting ongoing skills are certification as a Roads Scholar (10 classes required) followed by Road Master (30 classes required). These Road Masters are our champions who assist with instruction during workshops.

A very successful training effort is through our half hour, monthly webinars. This method saves on travel time and costs by providing requested training in an electronic format. This is especially true for those in the northeast corner of the state and eastern Montana where it is too costly to send crew to face-to-face trainings. These recorded webinars are available to be reviewed by our customers at their discretion.

### Webinar Topics

Backing Up Safety, Summer Survival, Defensive Driving, Trenching Safety, Personal Protective Equipment, Winter Safety, Electrical Safety, Leadership, and Winter Maintenance

The mission of Montana LTAP Safety Congress is to provide learning on all aspects of transportation safety. In January 2018, Montana LTAP held its 16<sup>th</sup> Annual Safety Congress in Helena. At this training event, Workzone Technician, Traffic Control Supervisor, Train the Trainer courses were requested by state, local, and private transportation providers. The Safety Congress brought together like-minded people to convene in a central location. Participants came from cities, counties and state departments who have responsibilities for permanent signing, work zone signing, or are in charge of overall roadway safety.

Future growth in the program delivery in the coming year includes expansion of LTAP's on-line penetration in cooperation with the National Center for Rural Road Safety. Multiple recorded webinars as well as new webinars each month throughout the year will add significantly to the

breadth of topics available to our stakeholders through the LTAP/National Rural Road Safety Center cooperative efforts.

## Introduction

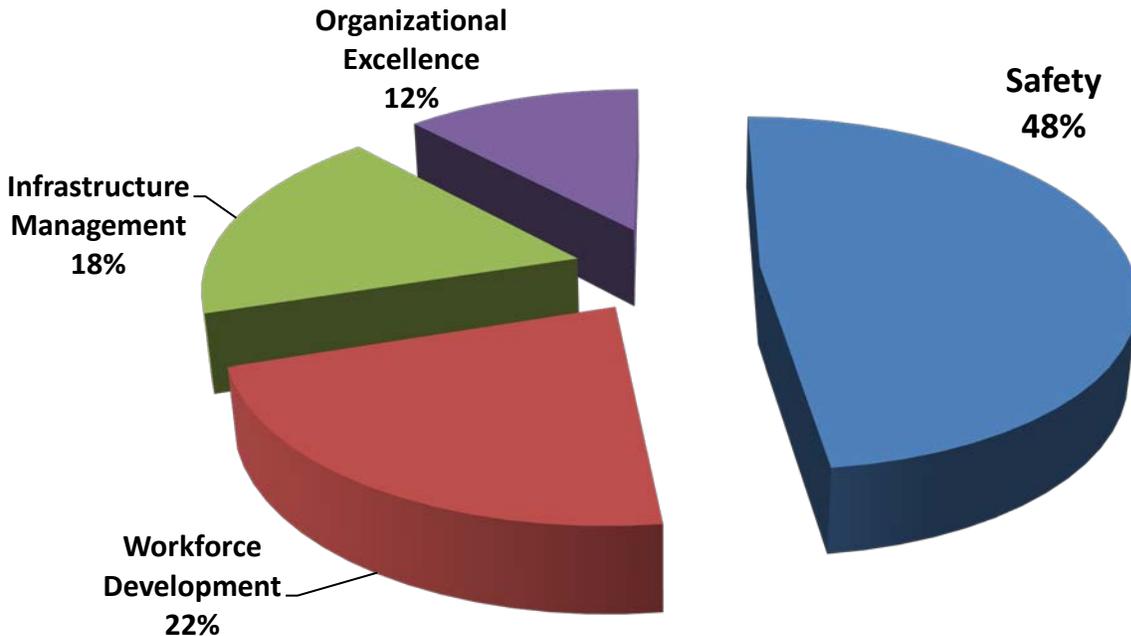
LTAP provides education and technical assistance on transportation matters to a wide variety of entities, including city and town street departments, county road departments, public works departments, elected and appointed public officials, private individuals, and government transportation agencies. By sharing and improving the distribution of this transportation-related information, the program promotes efficient use of local transportation agencies scarce resources. Our vision is to improve the quality and safety of the surface transportation system through interactive relationships and information exchange. LTAP builds on long-standing relationships among partners including the Montana Association of County Road Supervisors (MACRS), Montana Association of Counties (MACo), Montana League of Cities and Towns, American Public Works Association (APWA), National Association of County Engineers (NACE), and Montana Department of Transportation (MDT).

The overarching methodology of Montana LTAP will be to:

- **Coordinate** with all stakeholders to meet training and tech transfer needs
- **Integrate** training and technology transfer resources and services and into a centralized location at LTAP
- **Accelerate** distribution of transportation technology by
  - passing along training opportunities within the LTAP program, and those provided by stakeholders and neighboring state programs,
  - communicating current information on Federal Highway Administration mandates,
  - passing on information on new resources, techniques, and methods and
  - getting timely information into the hands of constituents.

## Mission

The mission of LTAP is guided by the four focus areas as directed by FHWA, and attention to each is vital to the success of LTAP's mission of fostering a safe, efficient, and environmentally sound surface transportation system by improving the skills and increasing the knowledge of the local and tribal transportation workforce. The four focus areas are Safety, Workforce Development, Infrastructure Management and Organizational Excellence. **Figure 1** shows the percentage of its budget Montana LTAP allocated to each of these focus areas.

**Figure 1: LTAP Focus Areas**

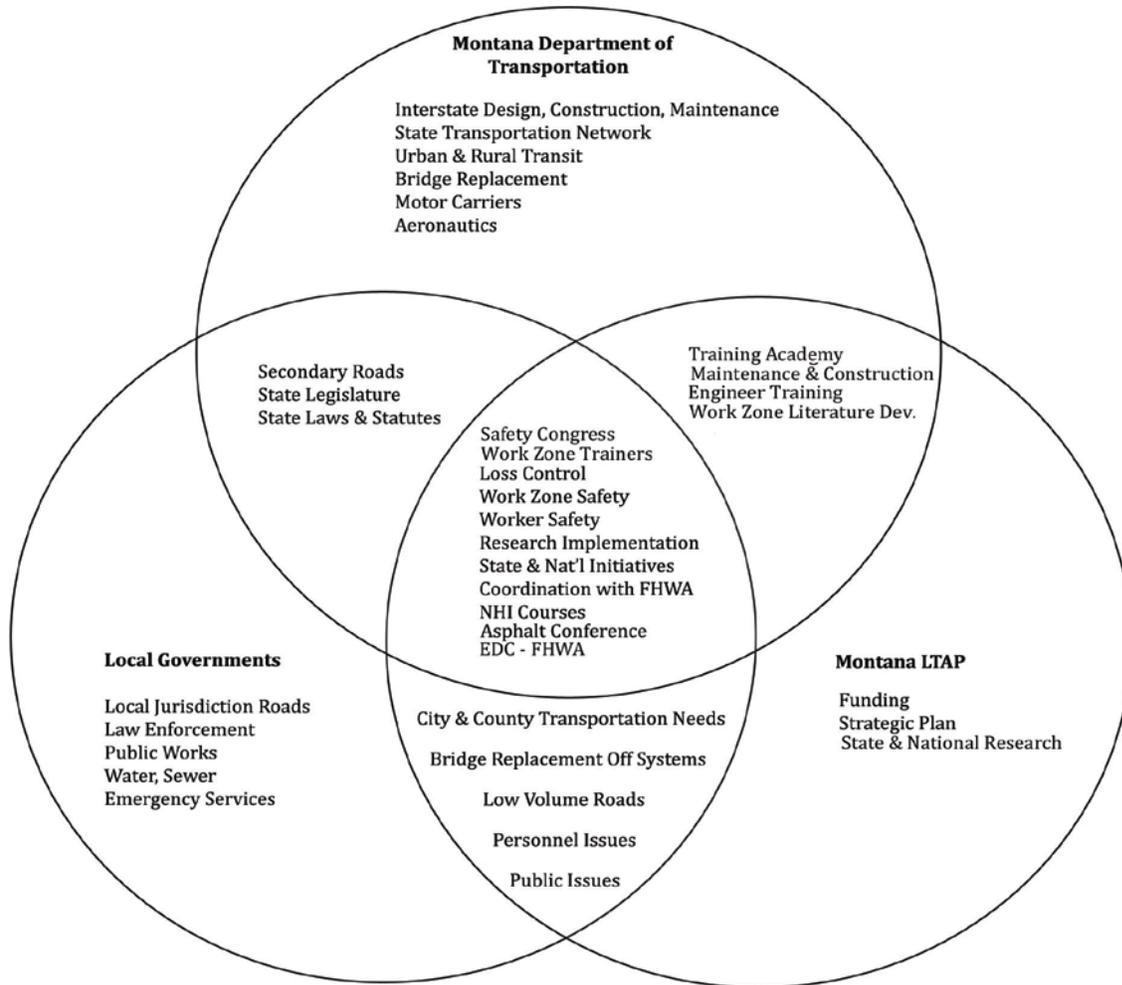
The tasks engaged in by LTAP to achieve these objectives include:

- Conducting on-site seminars and trainings
- Regular face-to-face interaction with stakeholders
- Administering certification programs
- Hosting and producing Webinars
- Digital sharing of technology and technical information
- Email correspondence and site visits with public works agencies
- Technical assistance and on-site expertise
- Distribution of a quarterly newsletter
- Transfer of technology and educational materials developed outside LTAP
- External communication through e-mails to a network of stakeholders
- Evaluation of program needs and content

LTAP plays a unique part in transportation education. This national LTAP program has undergone some recent changes. The National LTAP administrative program development is currently performing a national needs assessment, and from this some programmatic changes are likely. Montana LTAP has answered a pressing need for transportation training and technical assistance at the local level where resources are limited and the ability of FHWA and MDT to interface with these local agencies and provide these services is limited. Montana LTAP's capacity to provide face-to-face, hands-on training enables members of the transportation workforce to learn valuable information from our instructors and provides them with opportunities to discuss issues and share solutions with their peers. This technology transfer program is soundly grounded in the practice of sharing knowledge on current or recent

trends in the industry, new technology and best practices. In many instances LTAP is the primary source of professional development for the transportation staff of local governments.

To provide technical transportation training to local road agencies, local public works agencies, public officials, city, county and other municipal engineers, and the Montana Department of Transportation, LTAP will continue to be an easily accessible, central source for current state of the practice transportation information, technology transfer, relevant, high-quality course information, stakeholder coordination, and technical outreach assistance.

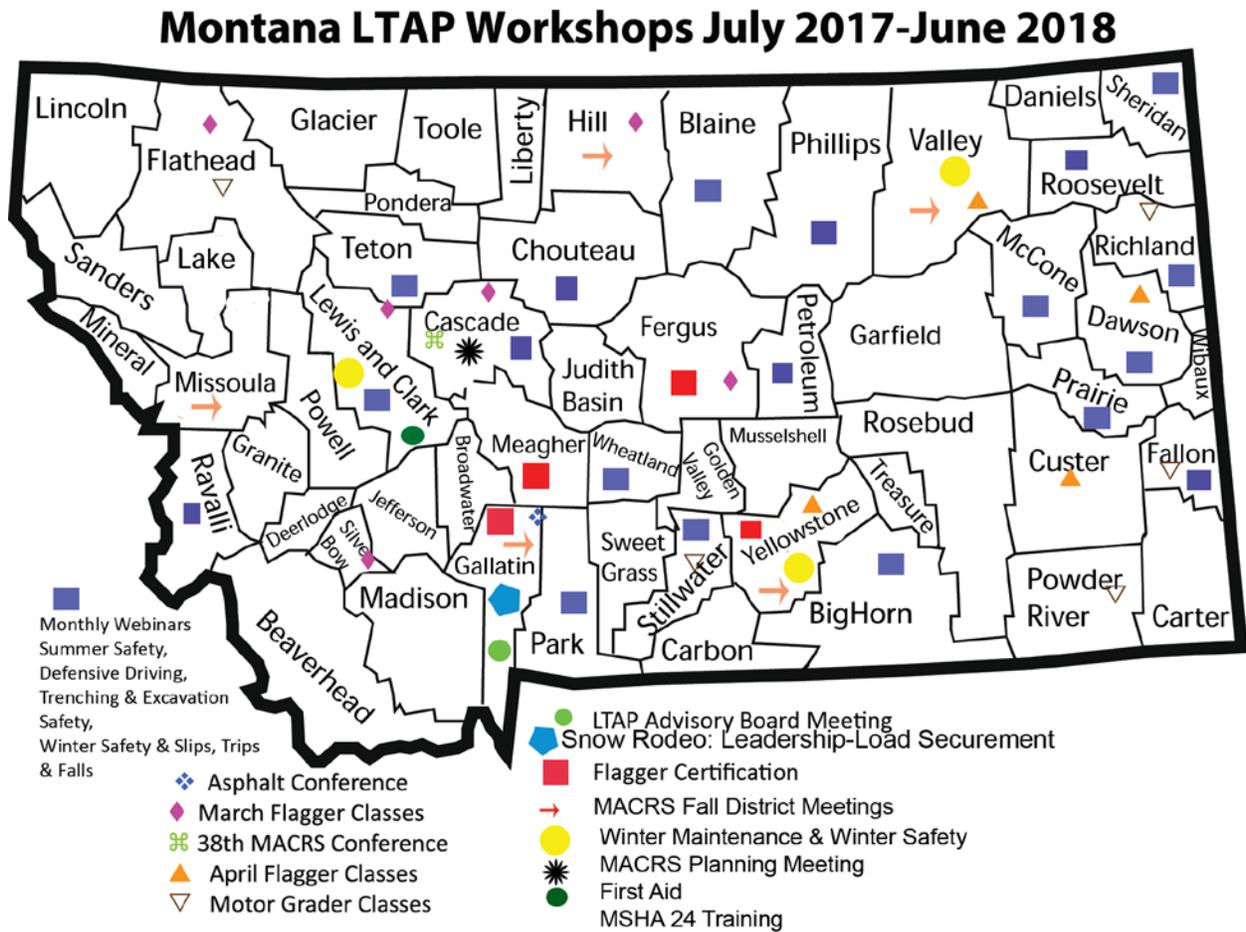


**Figure 2: Stakeholder Intersection of Interests**

The Montana LTAP Program is flexible and meant to accommodate the local needs of our stakeholders. LTAP works in conjunction with outside entities to provide the resources and training topics that we see as needs through observation, discussion and statistical evaluation of available data, and those requested by our constituents. **Figure 2** illustrates the various topics of interest that intersect with Montana LTAP training topics and those training topics requested by local government agencies and MDT. The overlapping areas show interests in common and help focus the areas where LTAP can be most effective.

Montana LTAP’s role in responding to training requests, technology transfer needs, and implementation of best practices throughout the Montana transportation community has been considerable and will continue to grow based on its strategic approach to increase its impact in Montana for the benefit of our stakeholders. The need will continue to grow, as well as retirement rates, and the number of new employees in Montana. Our partnerships with Montana Department of Transportation, FHWA, National Highway Institute, and others previously mentioned will allow us to better meet those needs.

Montana LTAP’s ability to efficiently and effectively transfer technology and information to our rural and urban partners and customers is its primary measure of success. **Figure 3** illustrates the diversity of training as well as the geographic reach of the trainings throughout the state. Montana LTAP staff has played key roles in the development, coordination, analysis, enhancement and day-to-day operations of transportation technology transfer. Many Montana counties have engaged with LTAP to learn better methods of gravel road maintenance through application of knowledge gained through LTAP technical training and involvement with these stakeholders in the field. Significant environmental, material operational cost savings are realized through use of good materials, techniques and stabilization many counties grade roads once or twice a year rather than the six to eight times in the past.



**Figure 3: Montana LTAP 2017 - 2018 Workshop Map**

### **Montana LTAP Spotlight: Roads Scholar Program**

One particularly successful means for promoting ongoing skills development at the local and tribal levels is the Roads Scholar and Road Master programs, which recognize staff for reaching competency levels through training and development of transportation expertise.

The underlying approach is to provide curricula that enable local transportation workers to study road fundamentals, safety, temporary traffic control, drainage, snow and ice removal, and other topics with the goal of becoming expert road managers. The courses help participants develop professionalism and advance their careers.

There are currently fifteen Road Masters who successfully completed the rigorous program requirements to obtain this recognition and certification.

Montana LTAP continues to work with the following workforce-development-focused learning institutions:

- MACRS
- MACo
- MSU-Bozeman
- Iowa, North Dakota, South Dakota and Colorado LTAPs
- Flathead Valley Community College
- Montana Tech, Butte
- Tribal Transportation Agencies
- Montana Safety Fest

### **Montana LTAP Professional Staff**

Currently there are three staff members (2.75 FTE) at Montana LTAP with the potential to involve WTI technical (graphics) specialists and/or a Montana State University work-study student to assist on various projects as need dictates. This is a cost-effective structure and requires very little administrative burden beyond what is needed to administer the program.

- ***Matthew Ulberg, P.E. Director (1.0 FTE)***

April 1, 2017 the Montana LTAP welcomed a new Director, Matthew Ulberg. Matt returns to MSU after spending the last 19 years working in the private consulting industry. Matt's strengths include working closely with public and private sector clients to solve their engineering challenges. Matt's experience includes proposal development, client management, rural transportation and highway projects, municipal infrastructure projects, right-of-way acquisition, safety studies, and traffic engineering. Matt provides **organizational leadership**, expertise in a variety of **engineering-based and technical areas** and will work toward bringing a broad range of new educational training and field-delivered programs to the LTAP offerings. Matt brings a fresh perspective to training and technical assistance to local city, county, and state entities throughout the state of Montana (Appendix C).

- ***Genevieve Houska, B.S. (1.0 FTE)***

Administrative Associate and Conference Coordinator, Montana LTAP, Genevieve has 19 years of experience in private and public-sector accounting, database management, federal and state reporting, and over 10 years of travel planning and conference coordination experience. She

provides the LTAP office with expertise in accounting, budget planning, graphic design, and coordinates approximately 70 workshops and conferences per year for the program.

- ***Shawna Page, Professional Trainer, Training Program Coordinator (0.75 FTE)***

Training Program Coordinator and Professional Trainer at Montana LTAP, Shawna has over 29 years of experience in private and public-sector construction, safety training and program coordination. Shawna delivers a large portion of our LTAP-sponsored Safety training, including Traffic Control Supervisor, Work Zone Technician, Flagger Certification (including Re-Certification), Pilot/Escort Operations, Asbestos Awareness and Lead Contractor Supervisor, Hazardous Waste trainings, MSHA Part 46, OSHA and first aid/CPR Trainings.

## **Program Development**

### **Customer Needs Assessments and Program Development**

Our transportation workforce is constantly changing, and it is critical Montana LTAP monitors the current and future needs of transportation providers. Road supervisors are retiring and new operators need technical and safety training for equipment operation. To keep up with these changes, a formal Needs Assessment will be conducted in the spring of each year. Montana LTAP monitors the needs of transportation providers through a variety of methods. In order to fulfill our mission, information is gathered from the LTAP Advisory Board, Needs Assessment Survey (Appendix D), various survey questionnaires, personal interviews, and injury insurance reports to gain a broad scope of the education technology transfer needs of our workforce. The LTAP training and resources offered in the following year generally reflects the results from the needs assessment and the requests made by its partners and customers.

Methods of Needs Assessments conducted over the past year:

Questionnaires and Surveys:

Workshop Evaluations

Electronic Version of Needs Assessment Survey on Its Website

Hard Copies of Needs Assessment Surveys Gathered at District Meetings

Key Contact Information Interviews:

Personal Interviews with City Transportation Officials and County Road Constituents at MACRS and other trainings and conferences

Interviews with Vendors at regional and national meetings

Interviews with LTAP Directors and staff from other states

Contact and communication with Federal and State-level subject experts

Contact and communication with National Centers of Excellence at WTI

Group Assessment Methods:

Semi-Annual Meetings with MACRS Officers and District Representatives

League of Cities & Towns Conference with Public Works Directors

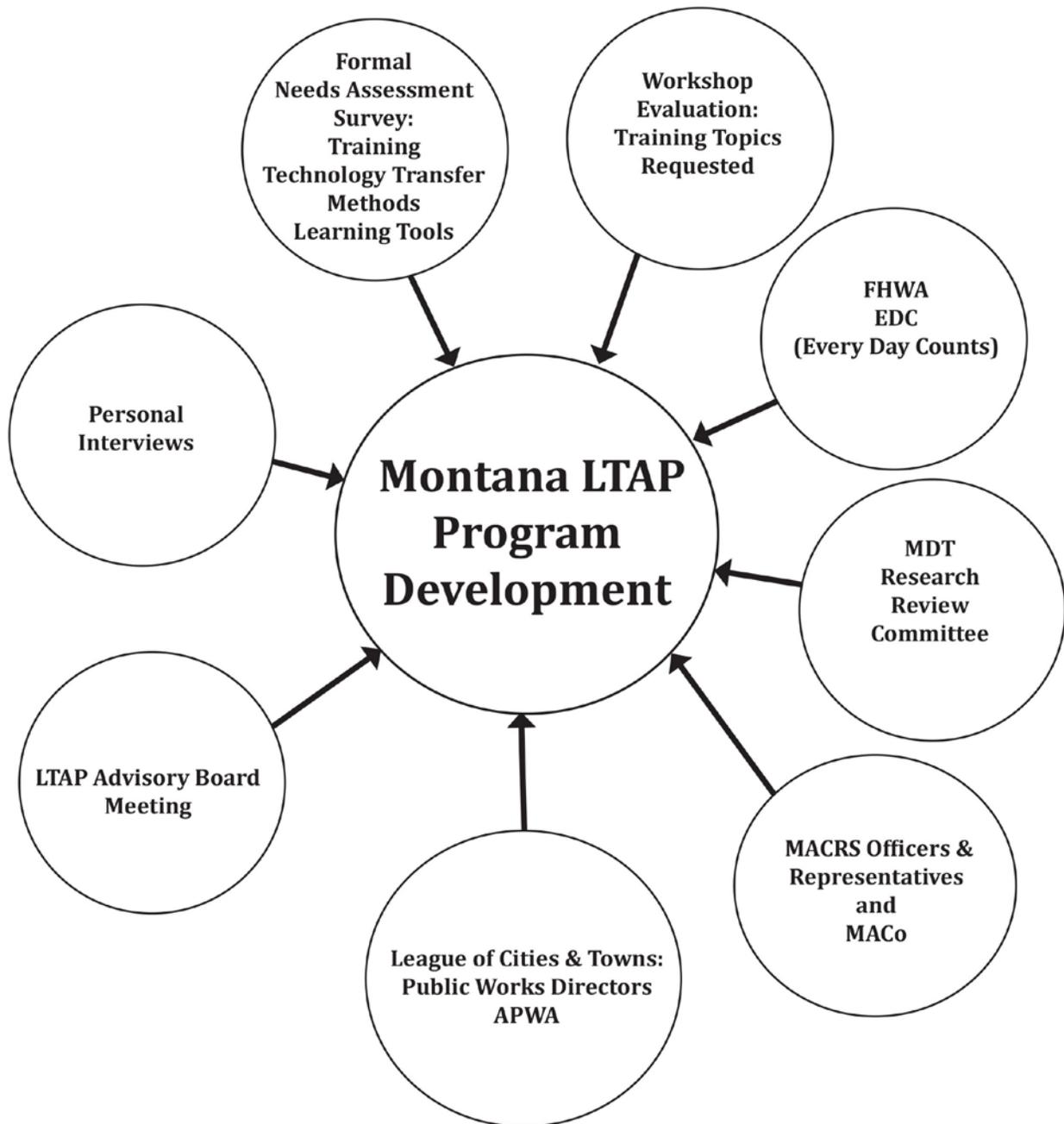
LTAP Advisory Board Meeting

Mapping of training

Annual review of our geographic reach thorough creating the Training Workshop Map (Figure 3)

Through analyzing the information gained through conducting these assessments, LTAP can develop programs that best meet customers' needs. On the following page, **Figure 4** illustrates the variety of information gathered and put into action.

**Figure 4: Program Inputs**



**Formal Needs Assessment Survey conducted in 2018**

The needs assessment survey was sent out electronically, delivered in hard copy at conferences and workshops, and mailed to city and county employees. Following is a summary of the survey results. Subjects were rated 1-5 by attendees, and given weighted averages accordingly.

**Focus Area: Worker Safety**

- Winter Survival
- Back Safety
- Hand Safety

**Focus Area: Work Zone/Highway Safety**

- MUTCD 2N & 6
- Work Zone Technician
- Weed Mowing – HWY Safety

**Focus Area: Infrastructure Management**

- Equipment Operation
- Trenching Safety
- Load Securement

**Focus Area: Workforce Development**

- Equipment Operation
- Trenching Safety
- Load Securement

**Focus Area: Organizational Excellence**

- MACRS Conference
- Personnel Management
- Technical Leadership

Results from Needs Assessments and Interviews

**I. MDT Research Review Committee**

1. Urban Issues
2. Pavement Management
3. Work Zones

**II. League of Cities and Towns: City Transportation Officials**

1. Asphalt
2. Work Zone Safety
3. Personal Safety/Personnel Issues
4. Liabilities/Safety Audits
5. AASHTO Design
6. Storm Water Drainage Issues

**III. LTAP Advisory Committee (Listed from most votes to least)**

1. Worker Safety (PPE)
2. Gravel Roads
3. Work Zone Safety
4. General Safety in Work Areas
5. Personnel Issues
6. Asset Management

**IV. MACRS Officers and Representatives and MACo Spring Training Requests:**

1. Motorgrader Operation
2. Work Zone Technician
3. Traffic Control Supervisor

*Conference Requests:*

1. Loss Control
2. Construction Math
3. Culvert Sizing
4. DES - Procurement
5. Plan Reading
6. Virtual Gravel Pit Permitting

*Fall Training Requests:*

1. Trenching Safety
2. Load Securement
3. MSHA Part 46

**V. Federal Highway Administration**

1. Every Day Counts (EDC)
2. Vision Zero

**Other Inputs: Training Topics Requested**

The LTAP survey is designed for participant to select more than one topic. These topics are rated from most frequently selected to least:

- Worker Safety
- Technical Leadership
- Winter Maintenance
- Gravel Road Standards
- Signing Basics
- Cattle Guards
- Summer Survival
- Dust Control
- Loader Safety
- Dump Truck Safety
- Skid Steer Operation
- CDL Truck Driving Safety
- Plan Reading
- MSHA Part 46
- HAZMAT
- County Road Standards
- Winter Survival
- Weed Mowing
- Surveying
- Work Zone
- Trenching
- Forklift
- Motorgrader Operation
- MUTCD – Signing
- Safety Audits
- OSHA 10/OSHA 30

### **Leveraging capabilities and partnerships: *LTAP Program Growth***

Due to the increase in flexibility and availability of online trainings and coursework, it is anticipated that some of these opportunities will expand the courses that will become part of the curriculum for the Roads Scholar and Roads Master programs. In addition, many new courses are currently under development at LTAP that leverage the professional experience of its Program Coordinator, Shawna Page, and that of its Director, Matt Ulberg. The new courses shadow courses developed and used in the Roads Scholar and Roads Master programs at other state LTAPs, including Ohio LTAP. The courses will be tailored to meet the needs of Montana stakeholders before being fully integrated into the Montana program.

#### **NEW: Standard Operating Procedures (SOP) Manual (Spring 2018 MACRS conference)**

LTAP will deliver a brief training on this Model SOP Manual at the spring 2018 MACRS conference. The development of this manual was spurred through conversations with many Road Supervisors at MACRS, and with the MACRS Board. It became clear that many counties do not have good written SOPs, and as such, this was a need that we stepped in to fill. The Road Supervisor's operating policies and procedures are unique to each county, but a Model Manual that assists a county in assembling these items for each Road Supervisor became an item that we have spent time assembling. We anticipate being able to have this Model SOP manual available to counties by the Summer of 2018, with more training to follow.

#### **NEW: Road Supervisor Manual**

LTAP is working on a draft of a model Road Supervisor's Manual. This effort was spurred through conversations with many Road Supervisors at MACRS and other trainings. It became clear that many counties do not have good written work descriptions for their employees. The Road Supervisor's role, responsibilities, policies and procedures are unique to each county, but a Model Manual that assists a county in assembling these items for each Road Supervisor became an item that we have spent time assembling while working on the SOP manual training as part of the 2018 MACRS conference. We anticipate being able to have this available to counties by the fall of 2018, with a training to follow.

### ***Partnerships***

#### **Western Transportation Institute**

As part of its continuing efforts to leverage the capabilities, resources and opportunities at MSU-Bozeman and within the Centers housed at the Western Transportation Institute (WTI), Montana LTAP has adopted cooperative attitudes with multiple training, technology transfer and research entities. This will allow Montana LTAP access to an unprecedented amount of research and practical training resources.

One partnership that LTAP is currently just beginning, is the partnership with the National Center for Rural Road Safety (Safety Center), which is one of the Centers of Excellence housed within the organization of WTI.

The Safety Center training program is a multi-disciplinary, collaborative effort to accelerate knowledge transfer from training to implementation. The Safety Center has designed their work plan to include a variety of training methods (e.g., videos, webinars, in-person trainings, summits), topics, and audiences. To find out more, please see below.

○ **Safety 365 – A Safety Workshop for Local Governments**

*Length:* 8-hour course

*Audience:* Local/rural maintenance supervisors

*Instructors:* Keith Knapp and Nicole Oneyar, InTrans

This one-day workshop focuses on processes for incorporating safety into all aspects of local and rural road projects, and on making safety a priority through inclusion in the traditional decision-making process—365 days a year. The course stresses the importance of road safety, and illustrates how it can be integrated into rural/local transportation project development at all stages: planning, design, construction, implementation, operations, and maintenance.

○ **Roadside Safety Basics for Local Agencies**

*Length:* 6-hour course

*Audience:* Local agency maintenance/engineering staff

*Instructors:* Frank Julian, FHWA and Keith Knapp, InTrans

This course provides the basics of roadside safety. The roadside safety problem in the United States is defined and countermeasures to keep vehicles on the road are discussed. The provision of a recovery area is also described, including discussions of clear zone and objects within it. The course also covers the basics of drainage features and sign supports and is concluded with a short discussion of barrier basics.

○ **Maintaining a Safer Roadway**

*Length:* 4-hour course

*Audience:* Maintenance staff and supervisors

*Instructors:* Keith Knapp (Iowa LTAP, InTrans and Renae Kuehl

Maintaining a Safer Roadway – Local agency maintenance forces are in the best position to be the “eyes and ears” of the road when it comes to identifying safety issues. This session will focus on maintenance safety solutions that local maintenance forces can implement on a daily basis to address safety issues related to elements such as shoulder drop-offs, right-of-way obstructions, striping and signing, guardrails, mowing, sweeping, patching, drainage, winter maintenance, etc.

The Safety Center provides a compilation of upcoming rural road safety trainings and conferences from multiple sources to your inbox bi-weekly, referred to as Training E-Blasts.

The Safety Center has developed and conducts trainings on many topics related to rural safety. The page provides an archive (in both pdf and streaming format) of the trainings created by the Safety Center. Below are the archived webinars available for its LTAP Stakeholders.

- November 2015 – [Introduction to the National Center for Rural Road Safety](#)
- December 2015 – [Understanding Organizational Culture and Its Impact on Safety](#)  
[Culture Audio Player](#)
- January 2016 – [Application of Systemic Safety to a Non-Engineering Concern](#)
- February 2016 – [Rural Signing and Marking Resources](#)

- March 2016 – [An Overview of the Factors and Processes to Increase Organization Safety Culture](#)
- April 2016 – [Crash Risk Factors for Low-Volume Roads: an ODOT Case Study](#)
- May 2016 – [Louisiana’s Regional 4E Approach to Saving Lives: the Goal is Destination Zero](#)
- June 2016 – [usRAP: An Innovation in Data Driven Safety Analysis](#)
- July 2016 – [Roundtable on the Public Health Side of Rural Transportation Safety](#)
- August 2016 – [TZD through Improved TSMO and Rural Emergency Response](#)
- September 2016 – [National Working Summit on Transportation in Rural America](#)
- November 2016 – [Defining the Future for Safe Rural Transportation in America](#)
- December 2016 – [Toward Zero Deaths-Proactive Steps for Your Community](#)
- January 2017 – [Assessing the Operational and Cultural Environment of the Transportation Workforce](#)
- February 2017 – [Small Town and Rural Multimodal Networks](#)
- March 2017 – [Safety Performance Management](#)
- April 2017 – [Converting Paved Roads to Unpaved](#)
- May 2017 - [Incorporating Safety Data into the Planning Process at the Rural Level](#)
- June 2017 - [ITE Vision Zero Virtual Toolbox Webinar](#)
- July 2017 - [How to Address Roadway Safety Issues for ATVs and Other Off-Road Vehicles](#)
- August 2017 - [Collaborating with Law Enforcement to Reach Zero](#)
- September 2017 - [FHWA Safety Data & Analysis Toolbox](#)
- November 2017 - [A Public Health Perspective to Rural Transportation Safety](#)
- December 2017 - [Achieving Safety Results by Addressing Behavioral Issues and Unpaved Road Safety](#)
- January 2018 - [Pedestrian Treatments for Uncontrolled Locations](#)
- February 2018 - [Primer on the Joint Use of the HSM and the HFG for Road Systems](#)

Over the next decade, the need for training, technology transfer, and implementation of best practices throughout the transportation community will be considerable. Its partnerships with MDT, FHWA, National Highway Institute, and other national transportation partners will allow LTAP to better meet those needs.

The LTAP work plan and program are derived with consideration of local training needs as well as the input provided by its stakeholders, customers, and funding organizations. Federal initiatives such as Every Day Counts (EDC) and Vision Zero are made a part of its every-day operations and training that are delivered to its stakeholders through scheduled workshops around the State. Its stakeholders provide input through the LTAP Advisory Board and other direct communications with its trainers, staff, and Director. Incorporating 1-on-1 interviews and the needs assessments help LTAP to draw out needs that are specific to current state of the practice. The resulting proposed training program is described in the next section of this document in the context of FHWA’s prescribed program areas. The topics mentioned in each of the four focus areas are listed in order according to requests—most requested topics are first, least requested topics appear last.

## **Four Focus Areas**

### **Safety Focus Area**

In previous meetings with MDT upper management, work zone safety was requested. Montana LTAP's planned training fulfills this request and also meets the needs assessment surveys' priority requests as indicated on previous pages 10 - 12. LTAP has partnered with MDT and have a reciprocity agreement with the transportation departments of Washington, Oregon, and Idaho to provide three levels of work zone training:

1. Work Zone Flagger
2. Work Zone Technician
3. Traffic Control Supervisor

In these and other workshops, the importance of seatbelts and danger distractive driving crashes are strongly reinforced. Main contributors to those crashes include hand-held cell phone use, distracted drivers, and drunk drivers. Worker safety is also a concern with respect to safely operating equipment and being aware of the safety of other workers in the work zone, along with backing up safely, pilot car operations, trench safety, equipment loading and securement, and equipment safety training.

Safety is a primary concern in every part of the surface transportation system, including local, tribal, state and federal government partners as well as the private and commercial sector. Consequently, nearly **half of the LTAP budget** is allocated to this area. The focus area of Safety includes highway safety and worker/workplace safety. The following proposed course topics will be taught to cover the safety focus area:

- Traffic Control: Permanent Signing
- Worker Safety: Hand and Back Safety
- Sign Training and Sign Vandalism
- Shop Safety
- Equipment Safety – Loaders, Heavy Trucks, Dump Trucks, Backhoes
- Work Zone Flagging
- Work Zone Technician
- Work Zone Traffic Control Supervisor
- Winter Survival
- Roadside Design
- Loss Control
- Rural Safety Review

LTAP will initiate the 16<sup>th</sup> Annual Safety Congress, January 2018, in Helena. Topics have been selected from needs assessment surveys and include:

- Work Zone Technician
- Traffic Control Supervisor Certification
- 5 Parts of the Traffic Control Work Zone
- Safety, Uniformity, and Liability in the Workzone

Federal initiatives such as Every Day Counts, Vision Zero, and the Rural Safety Audits will also be covered during the Safety Congress.

### **Infrastructure Management Focus Area**

The Infrastructure Management Focus Area includes gravel road design and maintenance, asphalt, dust control, county road standards, culverts, bridges, and storm water management. On pages 10 and 11, the needs assessment survey lists these course topics from this area as a high priority. Education for road surface management and safety features are provided in the League of Cities and Towns meeting and MACRS Fall District meetings. LTAP can then assist city and county road departments on methods of conducting road audits and inventories of road systems, in particular using the **PASER** method, **PA**vement **S**urface **E**valuation and **R**ating.

Following is a list of proposed courses to be covered under infrastructure management:

- Gravel Roads: Materials, Equipment, Design, Construction, DCP, Maintenance, Drainage
- Asphalt: Warm Mix Asphalt
- Asphalt: Cold In-Place Recycled Asphalt
- GIS/GPS
- Construction Technique
- Winter Maintenance
- Roadside Design and Management
- Preconstruction and Design
- Asphalt Management
- Road Dust: Dust Abatement BMPs
- Culverts
- Bridges
- Right of Way
- County Road Standards
- Chip Seal/Asphalt
- League of Cities and Towns: Public Works Directors Agenda
- PASER (PAvement Surface Evaluation and Rating)
- Storm Water Management
- Asphalt Patching: Best Practices

Montana LTAP will focus on developing strategies to maximize the performance of local governments' infrastructure while minimizing any negative effects on financial and human resources.

The key solution in bringing the roads up to a higher level of service is Montana LTAP providing training for the workforce who maintains and constructs these roads. Continued strategic training will improve road quality and assure economic stability for Montana.

### **Workforce Development Focus Area**

LTAP provides training to the transportation workforce at an affordable cost to local governments. The needs assessment surveys on pages 10 through 12 indicated these as high priority selected course topics for this focus area:

- Motor Grader Certification
- Dump Truck Safety
- Gravel Pit Safety
- MSHA Part 46 Training and refreshers
- Liability
- Materials Training
- Asphalt Training
- Snow Rodeo Training
- Signing
- Cattleguard Installation and Maintenance
- Forklift and Skidsteer
- Loader Safety
- Trenching
- Winter Maintenance
- Community Preparedness
- Surveying
- Weed Mowing

LTAP has a good relationship with Flathead Valley Community College, Montana Tech, Salish-Kootenai College, and Montana SafetyFest (DLI) to further workforce development. Each of these agencies has a program to prepare participants to enter the construction industry. It is hoped these partnerships will assist and encourage those students intending to enter the transportation workforce.

The Roads Scholars and Road Masters are a valuable assessment and progress monitoring tool that ensures that we recognize those that regularly attend and participate in trainings. This is a great way to communicate both the need and the value of the training for continued education also. This continuity assures progressive and continual development of the workforce.

### **Organizational Excellence**

Throughout the fiscal year, professional development is a key focus for LTAP personnel as they become better equipped to efficiently transfer technology and information to its stakeholders. By providing training for staff and evaluating training successes, its organizational excellence focus will be met.

Promoting organizational excellence within the constituencies we serve; several leadership courses will be offered again this coming year based on class evaluations from its December 2015 Leadership course that was very well received. Roads Scholar Programs prepare local government personnel for better performance and leadership responsibility. The following organizational excellence courses and assessments are proposed for this focus area:

- Work Ethics
- Employee Supervision and performance reviews
- Needs Assessments
- Center Assessment Report
- Leadership Behaviors
- Creating a SOP Manual

Other activities that promote Organizational Excellence are described below:

- The Director meets annually with the League of Cities and Towns Public Works Conference Committee to review training requests. LTAP participates and assist with developing an agenda for its yearly conference as needed.
- Montana LTAP coordinates with Rocky Mountain APWA Division members for the Snow Rodeo event to provides leadership and/or safety training for the first day. The hosting city street department or county road department organizes and coordinates the Snow Rodeo competition on the second day.
- The LTAP program is developed to meet the four focus areas and coordinated to meet the communicated priorities obtained through the needs assessment and from national training requirements passed down to the LTAPs from FHWA. This program is presented to its Advisory Board annually for its review input. This process assures a team effort in fulfilling training needs.
- The Director meets annually with the Montana Association of County Road Supervisors to review training requests. LTAP participates and assists with developing an agenda for the MACRS annual conference, along with collecting annual dues, invoicing, and conference coordination for this organization.

## Library Resources and Distance Learning

Over the past several years, audiovisual materials have provided other training opportunities identified by the needs assessments. The majority of counties have at least one if not two safety meetings per month for crew members and use these videos and DVDs for meeting topics. The majority of videos checked out from its library database deal with Roadway Safety and Worker Safety.

The following is a list of the videos most frequently checked out:

- |   |  |
|---|--|
| 1. Hand Safety                                  | 8. Welding Safety  |
| 2. Back Safety                                  | 9. Loader Securement   |
| 3. Right of Way Mowing Safety                   | 10. Transport Trailer Safety                                 |
| 4. Hearing Safety                               | 11. Right of Way Mowing Safety                               |
| 5. Emergency Response Driving                   | 12. It Always Happens to the Other Guy<br>(Equipment Safety) |
| 6. Operating Guide: Motor Grader                | 13. Distracted Driving                                       |
| 7. Motor Grader Operation – Part III<br>and PMA | 14. Personal Protective Equipment                            |

The Montana LTAP plans to review these videos for age and content, and update and/or convert many of these videos to an internet-based resource, while maintaining the hard-copy library for rural constituents that don't have easy access to the web. Its other Distance learning methods include Montana LTAP monthly safety webinars (web-based) and other long-distance learning programs (See Appendix E).

LTAP provides monthly morning safety webinars based on requests from its constituents and through the needs assessments. These monthly webinars will continue to be provided due to constituents' shrinking travel budgets. This method of training is becoming more popular to LTAP constituents for their monthly safety meetings. LTAP has the webinars recorded and available at any time for review on the LTAP website at:

<http://www.montana.edu/ltap/resources/webinars/index.html>.

Larger counties such as Missoula County, Sheridan County, and Richland County have all expressed their approval of this method of training. Many counties use the recorded webinars, and Missoula County specifically appreciated the recorded webinars so they could arrange to view them on their time during their scheduled monthly safety meetings. Being in the farthest northeast corner of Montana, Sheridan County usually has sixteen crew members watching its monthly webinars. This provides a time for all participants to gather and discuss issues and possible solutions. Another eastern county is Richland County who had twenty-seven crew members available to view recent webinars. This has proven to be an affordable method for learning due to vast distances to get to face-to-face training.

## Additional Services

Montana LTAP responds to specific requests and special needs of various organizations. Most of these activities fulfill a local need that is met through training, distribution of resources, and applied research.

1. APWA Annual Snow Rodeo and Equipment Training – technical training and equipment safety training for city and county road employees.
2. MACRS – annual spring conference and fall district training meetings
3. Montana League of Cities and Towns Conference – fall public works meeting and training
4. Safety Congress –January traffic control work zone training
5. MDT Work Zone Meeting – Work zone manuals/instructors/training and FHWA mandates
6. Asphalt Conference – partner with Asphalt Institute
7. MDT’s telecom sites and TLN (Transportation Learning Network) – long distance learning
8. FHWA EDC (Every Day Counts) dynamic webinars

### ***Future Initiatives***

We have made a lot of progress or completed last year’s initiatives. Including:

- Coordinated/planned January 2018 sixteenth Annual Safety Congress
- Initiated a cooperative program with North Dakota to better serve eastern Montana
- Solidified partnership with the National Rural Roads Safety Center and are working to leverage the partnership to better serve LTAP customers
- Worked to improve training program content and delivery coordination and cooperation between LTAP and MDT and FHWA
- Completed formal Needs Assessment for 2017/18
- Encouraged many small urban areas to develop pavement management programs in preparation for applying for federal funding – Currently working with Ravalli County
- Prepared tentative workshop schedule for 2018-2019 (Appendix F)
- Restored LTAP’s leadership and coordinating role with MDT and the Work Zone Safety Committee
- Finalize development of the MT LTAP Model Road Supervisors Manual

We also developed and delivered NEW content for training

- Leadership styles and Leadership behaviors – Snow Rodeo
- Developing a MT LTAP Model Standard Operating Procedures (SOP) manual – Initial delivery of content at MACRS 2018

The following are some of the initiatives Montana LTAP proposes to pursue this year:

- 1) Coordinate and plan January 2019 Seventeenth Annual Safety Congress.
- 2) Continue and expand upon the cooperative program with North Dakota to better serve eastern Montana
- 3) Continue to Solidify partnership with the National Rural Roads Safety Center and leverage the partnership to better serve LTAP customers
- 4) Work to improve training program content and delivery coordination and cooperation between LTAP and MDT and FHWA
- 5) Complete formal Needs Assessment for 2018/19
- 6) Encourage all small urban areas to develop pavement management programs in preparation for applying for federal funding
- 7) Prepare tentative workshop schedule for 2018-2019 (Appendix F)

- 8) Reinvest in LTAP's role with MDT and the Work Zone Safety Committee
- 9) Provide new and relevant content at each annual MACRS conference

### **Budget**

The following budget provides the basis for Federal, State and University funding of Montana LTAP from July 1, 2018, through June 30, 2019. Expenditures reflect an estimate of last year's expenses and projected goals for the program during the 2018–2019 state fiscal year. As the work progresses, it may be necessary to move monies among the tasks and expense categories; however, the total amount will be adhered to. Salaries stated are estimates. The University reserves the right to provide cost of living increases based on provisions from the Montana Legislature. **Table 1** shows a breakdown of total costs according to the four focus areas. **Table 2** breaks down the budget by funding source.

**Table 1. Breakdown of Budget by Focus Area**

<b>Focus Areas</b>	<b>Salary/ Benefits</b>	<b>Prof. Services</b>	<b>Travel</b>	<b>Supplies/ Comm.</b>	<b>Minor Equip</b>	<b>Subtotal</b>	<b>IDC's</b>	<b>Total</b>
Safety – 48%	132,397.20	3,773.59	2,400.00	2,304.00	976.81	141,851.60	40,548.40	182,400.00
Infrastructure Management – 18%	49,648.95	1,415.10	900.00	864.00	366.30	53,194.35	15,205.65	68,400.00
Workforce Development – 22%	60,682.05	1,729.56	1,100.00	1,056.00	447.70	65,015.32	18,584.68	83,600.00
Organizational Excellence – 12%	33,099.30	943.40	600.00	576.00	244.20	35,462.90	10,137.10	45,600.00
<b>TOTAL COSTS</b>	<b>275,827.49</b>	<b>7,861.65</b>	<b>5,000.00</b>	<b>4,800.00</b>	<b>2,035.02</b>	<b>295,524.16</b>	<b>84,475.84</b>	<b>380,000.00</b>

Table 2. Breakdown of Budget by Source

2018-2019 Budget	FHWA	GAS TAX REVENUE	MDT SPR	TOTALS
<b>SALARIES</b>				
Matthew Ulberg, Director	\$103,334.16	\$39,744.39	\$15,897.60	\$158,976.15
Genevieve Houska, Administrative Assoc./Conference Coordinator	\$5,990.00	\$51,496.59		\$57,486.59
Shawna Page, Field Training Coordinator	\$2,200.00	\$2,255.00	\$47,240.75	\$51,695.75
WTI Communications and Graphics Staff		\$2,525.00		\$2,525.00
WTI - Stephen Albert		\$2,572.00		\$2,572.00
WTI - Jeralyn Brodowy		\$2,572.00		\$2,572.00
<b>Subtotal: Salaries/Benefits</b>	<b>\$111,524.16</b>	<b>\$101,164.98</b>	<b>\$63,138.35</b>	<b>\$275,827.49</b>
<b>PROFESSIONAL SERVICES</b>				
Conference Speakers, Workshop Trainers		\$5,000.00	861.65	\$5,861.65
Printing Expenses		\$2,000.00		\$2,000.00
<b>TRAVEL</b>		\$5,000.00		\$5,000.00
<b>WORKSHOP SUPPLIES</b>		\$4,800.00		\$4,800.00
<b>MINOR EQUIPMENT</b>		\$2,035.02		\$2,035.02
<b>Subtotal: Direct Costs</b>	<b>0</b>	<b>18835.02</b>	<b>861.65</b>	<b>\$19,696.67</b>
<b>TOTAL (Salaries/Benefits, Direct Costs)</b>	\$111,524.16	\$120,000.00	\$64,000.00	\$295,524.16
Indirect Costs (34.5% FHWA, 25% Gas Tax, 25% MDT SPR)	\$38,475.84	\$30,000.00	\$16,000.00	\$84,475.84
<b>GRAND TOTAL</b>	<b>\$150,000.00</b>	<b>\$150,000.00</b>	<b>\$80,000.00</b>	<b>\$380,000.00</b>

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## Appendix A: History

### Montana LTAP History

Since its beginning in 1982, the Local Technical Assistance Program was first called “RTAP” for Rural Technical Assistance Program. We became “LTAP,” Local Technical Assistance Program, in 1991 as the Intermodal Surface Transportation Efficiency Act (ISTEA) widened the program’s scope to include urban areas with populations over 50,000. At this time, the Tribal Technical Assistance Program (TTAP) was also created. Together, these programs helped local agencies build, maintain, and operate America’s transportation system by delivering targeted training and technical assistance to local and tribal governments.

Montana LTAP officially began in January 1983 at Montana State University—one of the first ten university sites selected to house this program. Funding support for the program is provided by the Federal Highway Administration (FHWA), the Montana State Legislature (gas taxes from cities and counties), the Montana Department of Transportation (MDT), and Montana State University (MSU).

Over the past 10 years alone, the LTAP and TTAP centers have achieved the following results:

- They conducted more than 60,000 training events.
- More than 1.5 million local transportation professionals attended LTAP and TTAP training.
- Participants logged more than 9 million hours of training.
- Nearly half of all LTAP and TTAP training included content related to highway and worker safety.
- Centers distributed more than 2 million technical publications and resources in response to requests from local and tribal agencies.
- Local transportation agencies saved an estimated \$8 for every \$1 LTAP spent on information and training.

## Appendix B: Program Assessment Report

### 2017 LTAP/TTAP Program Assessment Report

Center Name: **Montana Local Technical Assistance Program**

Reporting Period: **January 1 to December 31, 2017**

Due to the new formatting requirements from FHWA for the Program Assessment Report, this information is a summary of the main sections: Training, Conferences, Technical Assistance, Communications, Center Operations, and Highway Network. A digital copy is available upon request.

#### *Section One: Training*

Training delivered by LTAP staff consisted of 50 training sessions and 2751 participants from January 1 to December 31, 2017. Topics included forklift safety; work zone technician; traffic control supervisor; work zone flagger certification; front end loader safety; low volume road signing; gravel road design & maintenance; winter safety and traffic incident management; leadership; trenching safety and load securement; hearing safety and PPE; and low volume work zone safety.

Training hosted by LTAP center with contracted trainers consisted of 15 training sessions and 1382 participants from January 1 to December 31, 2017. Topics included Motorgrader Operation & Safety, Gravel Road Maintenance, Road Law, Preliminary Plan Reading, Construction Math, DEQ Permits, Drones and Technology, GIS, Leadership, and Load Securement.

#### *Section Two: Conferences*

LTAP hosted the Asphalt Institute conference in Helena in February 2017. There was a total of 100 participants.

#### *Section Three: Technical Assistance*

LTAP is receiving more requests for technical assistance. 5872 technical assistance requests were provided in the form of written correspondence and 27 requests LTAP provided on site visits to its constituents. See **Table 1** listing technical assistance data below.

**Table 1. Direct Technical Assistance within the LTAP State or Assigned Region**

Technical Assistance Provided	Program Area	Tribe or Local Agency Name	Total Number of Individuals Receiving TA	TA provided in what form (?)	Outcome
Develop Traffic Incident Management Webpage on our LTAP Website for MT TIM	Work Zone Safety	MT FHWA	1 and TIM Committee	written correspondence	TIM Site Developed
Meagher County Flagger Certification	Work Zone Safety	Meagher	10	on-site visit	County has Certified Flaggers
Assisted Garfield County with Gravel Road design	Infrastructure Management	Garfield	1	on-site visit	County is receiving grant for Road Improvement
Distribute National Center for Rural Road Safety training for Road Safety Audits	Infrastructure Management	Center for Rural Road Safety	307	written correspondence	Constituents aware of Training
Distribute FHWA Symbol Signs study summarized findings	Infrastructure Management	Counties and cities	271	written correspondence	Resource delivered
Distribute Western Transportation Institute Newswire Newsletters	Roadway Safety	Counties, cities, state DOT	307	written correspondence	Resource delivered
Announced Traffic Control Supervisor and Work Zone Technician Classes available from ATSSA	Work Zone Safety	Counties and cities	271	written correspondence	TCS and WZ Tech certification available

FHWA announcement on MUTCD Termination of Rectangular Rapid Flashing Beacon	Work Zone Safety	Counties, cities, state DOT	307	written correspondence	Counties aware of Termination
Announcing EDC dynamic webinars to constituents for 2017	Roadway Safety	Counties, cities, state DOT	307	written correspondence	Constituents aware of EDC webinars
ARTBA Newsline News Letters distributed to counties, cities, and state DOTs	Design and Traffic Operations	Counties, cities, state DOT	307	written correspondence	Constituents aware of recourses
Work Zone training announcements for flagger, wz tech, tcs for all	Work Zone Safety	Counties, cities, state DOT	307	written correspondence	All aware of LTAP Work Zone Trainings
Provided Fergus county road department with gravel road standards and gravel specifications for gravel materials	Infrastructure Management	Fergus County	4	written correspondence	Sent county updated gravel road specs
Distributed MT Department of Labor How to Use OSHA's Injury Tracking Applications	Worker Safety	Counties and cities	271	written correspondence	Other local governments aware of application
Announced MT Public Works Directors conference for MT League of Cities and towns	Planning	cities	88	written correspondence	Cities knowledgeable about PWD meeting
Provide training, conference planning, and latest EDC info to MACRS Officers	Workforce Development	counties	183	written correspondence	MACRS officers aware of training
Sent out FHWA CMF Clearing House webinar announcement	Roadway Safety	counties and cities	271	written correspondence	Providing constituents with online training resources
Assist MDT with Highway-Rail Conference survey of local agencies	Design and Traffic Operations	counties	183	written correspondence	MDT needed info from counties about rail crossings for conference
Disseminate all MDT training to local governments	Roadway Safety	Counties and cities	271	written correspondence	Provide Local Governments another training outlet
Distribute MDT announcement for diesel fuel used on public roads	Environment	counties and cities	271	written correspondence	Prepare local governments for compliance with diesel fuel
Email MUTCD clarifications of existing standards and guidance on new and innovative traffic standards	Roadway Safety	Counties, cities, state DOT	271	written correspondence	Keep all agencies aware of new MUTCD standards
Distribute NACE info on how to compete for INFRA Grants	Design and Traffic Operations	Counties, cities, state DOT	307	written correspondence	City and towns aware of grants that are available
FHWA Vegetation Control for Safety: A Guide for Local Highway & Street Maintenance Personnel to LTAP Listserv	Roadway Safety	Counties, cities, state DOT	271	written correspondence	Local agencies aware of FHWA Guide
Sent acknowledgement to WTI Director Steve Albert about positive response from county about Laura Fay's Unpaving Report	Infrastructure Management	university	1	written correspondence	Bringing to the Director's attention about Laura Fay's article
Broadcast to all constituents about Montana SafetyFestMT about free worker safety training available	Worker Safety	Counties, cities, state DOT	307	written correspondence	Valuable free worker safety training announced to constituents
Sent out notice about Toward Zero Deaths Grant Programs to constituents	Roadway Safety	Counties, cities, state DOT	307	written correspondence	Constituents had knowledge of TZD Grants
Distributed Rural Road Safety Center regarding ITE Vison Zero Virtual Toolbox Application	Worker Safety	Counties, cities, state DOT	307	written correspondence	Constituents had knowledge of application

**Table 5. Direct Technical Assistance outside the LTAP State or Assigned Region**

Technical Assistance Provided	Program Area	Tribe or Local Agency Name	Total Number of Individuals Receiving TA	TA provided in what form (?)	Outcome
Distributed FHWA Round about listserv from Ann Arbor, MI	Workforce Development	LTAPS	4	written correspondence	Provide an FHWA resource to constituents
Broadcast 32nd Annual North Central Regional Local Road conference in Rapid City, SD	Workforce Development	counties	183	written correspondence	Attendance at Local Roads conference
Promoted all webinars, TLN training, and onsite trainings for North Dakota LTAP/ UGPTI	Workforce Development	counites, cities, MDT	307	written correspondence	Provide another venue for training

*Section Four: Communications*

Montana LTAP sends out 375 electronic versions of its news letters to 271 local agencies, 7 tribal agencies, 70 state agencies, 2 federal agencies, and 25 contractors. The news letters are sent out quarterly over the fiscal year.

There were 4 articles relating to Every Day Counts, 6 articles relating to Infrastructure Management, 5 Safety articles, and 4 Workforce Development articles that were published in the quarterly newsletter for the fiscal year. LTAP sends its newsletters out electronically to its constituents and the links to the newsletters are posted on the Montana LTAP website. The LTAP website does not have the capacity to track if its constituents are sharing the information with others or how many views its website receives. The website is updated weekly to keep the information up-to-date for its viewers.

*Section Five: Communications*

The LTAP Center staff spent 10 hours per month participating as a member of a committee. LTAP does not charge a fee for services such as data analysis, safety audits, project management, or consulting services.

The fiscal year for Montana LTAP starts July 1. Its annual estimated budget for 2017 was \$295,524.16. The annual revenue collected from fees associated with the training and conferences resulted in no net profit for LTAP.

During the 2017 fiscal year the Montana LTAP had 2.75 FTEs within the center. The Center hired 2 contracted instructors to provide on-site-training to its constituents around the state of Montana. The Current director (Matthew Ulberg) came on board March 15, 2017 after a nearly 20-year career in private consulting. Succession planning for a small office of three people is not an aspect of our Center Operations that is a.) within the identified critical elements of our developing Strategic Plan, and b.) due to State HR and University Policies, completely within our control.

LTAP is working on internal workforce development such that its internal staff will have the opportunity for advancement and rewarding careers at Montana LTAP. Its technical staff is in CONTINUAL need of ADOBE Suite training with InDesign, Acrobat, Illustrator, etc. Ongoing technology upgrades and practices, including digital media delivery require continual training opportunities. MSU-Bozeman provides a variety of opportunities that staff is encouraged to participate in, and take advantage of, as LTAP is located on the MSU Campus. This includes software, personnel, management, web development, IT basics, grant writing, financial management, and other professional development courses.

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### Success Story

In 2017, the Montana LTAP program operated with a new director starting in April. Administrative staff was reduced to a single person, and LTAP added a professional trainer. Our budget for FY 2017/18 was increased by \$50,000.00 through the State legislature. This constituted approximately a 15% increase in our annual budget. In the 9-months of the year remaining, LTAP worked hard, focusing on program delivery and achieving the initiative in the work plan. As measured by content delivered and reach of our program, LTAP delivered almost 140% of the 3-year average looking back at previous years.

We continue to provide scheduled trainings through a combination of inside resources and outside contracting with previously established technical experts. We continue to reach the LTAP stakeholders at or near their place of work, and training class attendees have been supportive and enthusiastic about the quality of service from the Montana LTAP Program.

#### *Section Six: Highway Network*

##### for LTAP Centers

	Centerline Miles
How many centerline miles of public roads are <b>owned</b> by Local Public Agencies in your State?	75,000
How many centerline miles of public roads are <b>maintained and operated</b> by Local Public Agencies in your State?	75,000

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## Appendix C: LTAP Director

### Matthew A. Ulberg, PE



Matt has is a talented public speaker, and has the ability to quickly build a friendly and professional rapport with clients and the public. Matt has more than 18 years of experience working closely with public and private sector clients to solve their engineering challenges. Matt will serve with integrity as Director of the Montana LTAP at MSU Bozeman. He looks forward to forging strategic partnerships within the transportation community, leading staff into new areas of expertise, and finding efficiencies to improve service to the transportation workforce throughout the whole of Montana.

#### EDUCATION

- M.S. - Civil Engineering (1997), Montana State University
- B.S. - Civil Engineering (1996), Montana State University

**REGISTRATIONS:** Professional Engineer (PE) registered in **MT**, AK, ID, ND, SD

#### Accomplishments and Honors

ACEC-Montana, President (2013-2014)  
 ITE Montana, President (2000-2001)  
 Chi Epsilon – MSU Bozeman

#### PROFESSIONAL WORK EXPERIENCE

1998 - present: DJ&A, P.C. (Missoula, MT)  
 1997-1998: Western Transportation Institute (Bozeman, MT)  
 1996 (Summer): CH2M Hill, (Boise, ID)  
 1995-1996: Western Transportation Institute, (Bozeman, MT)

#### TRAINING

GEOPAK Road I, II and III, Survey  
 ACADD 2012/Civil 3D  
 ACI Technician  
 Nuclear Densimeter Certified  
 IHSDM Beta-testing and implementation (FHWA)  
 NHI Earned Value Management  
 Negotiation Skills  
 Right of Way Acquisition (IRWA)

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## Appendix D: Needs Assessment

2017 Formal Needs Assessment for Montana LTAP

### LTAP Workshop Needs

Subjects were rated 1-5 by attendees and given weighted averages accordingly.

#### Focus Area: Worker Safety

##### Top 3 Responses

- Winter Survival
- Back Safety
- Hand Safety

#### Focus Area: Work Zone/Highway Safety

##### Top 3 Responses

- MUTCD 2N & 6
- Work Zone Technician
- Weed Mowing – HWY Safety

#### Focus Area: Infrastructure Management

##### Top 4 Responses

- Motorgrader Operation
- Gravel Road Maintenance & Design
- Culvert Placement & Trenching
- Cattle Guards

#### Focus Area: Workforce Development

##### Top 3 Responses

- Equipment Operation
- Trenching Safety
- Load Securement

#### Focus Area: Organizational Excellence

##### Top 3 Responses

- MACRS Conference
- Personnel Management
- Technical Leadership

### LTAP Workshop Information

Are Montana LTAP Workshops cost affordable?

- Yes: 92%
- No: 8%

### LTAP Website Information

Is the Montana LTAP Website easy to navigate?

- Yes: 85%
- No: 15%

**LTAP Library Information**

Have you or your agency received material from the Montana LTAP Library?

- Yes: 57%
- Unsure: 33%
- No: 10%

**LTAP Newsletter Information**

Do you read Montana LTAP's newsletter "LTAP Matters"?

- Yes: 65%
- No: 35%

What type of articles would you like in "LTAP Matters"?

- Worker Safety: 40%
- Highway Safety: 12%
- Infrastructure Management: 18%
- Workforce Development: 30%

What types of local topics would you like to see?

- Budget/Costs: 13%
- Laws/Regulations: 41%
- Local Road/Highway Projects: 34%
- Technical Articles and Reports: 12%

**LTAP Listserv Information**

Are you a subscriber to the Montana LTAP Listserv?

- No: 45%
- Yes: 55%

**LTAP Demographic Information**

What is your job description?

- Road Crew: 15%
- **Road Superintendent/Foreman/Supervisor: 70%**
- Public Works Director: 10%
- Other: 5%

How many years of work experience do you have?

- 0-3 years: 5%
- 4-6 years: 10%
- 7-9 years: 5%
- 10-14 years: 15%
- 15-19 years: 15%
- **20 + years: 50%**

What is the population of your city?

- Under 4,000: 25%
- **4,000-10,000: 40%**
- 10,000-15,000: 15%
- 15,000-30,000: 0%
- 30,000-45,000: 0%
- 45,000 and above: 15%

How many miles of road does your city/county maintain?

- Under 250: 0%
- 250-500: 10%
- 500-750: 20%
- 750-900: 20%
- **900-1,150: 25%**
- **1,150-2,000: 25%**
- 2,000 and above: 0%

LTAP Methods for Providing Technology Transfer

Top 4 Responses

- Conferences/Workshops
- Technical Visits
- Personal Communications
- Distance Learning (Webinars)

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## Appendix E: Distance Learning Lessons

Eleven safety meeting webinars were held via Adobe Connect through the Western Transportation Institute at Montana LTAP:

- Backing Up Safety
- Summer Survival
- Defensive Driving
- Trenching Safety
- Personal Protective Equipment
- Winter Safety
- Electrical Safety
- Leadership
- Winter Maintenance
- Hearing Safety
- Low Volume Roads

Other distance learning programs used and available for use:

- MDT's GoToMeetings
- MDT's connection with TLN (Transportation Learning Network) live training sessions
- NHI's training sessions to MDT's telecom sites in Montana
- National LTAP Clearinghouse's Adobe Pro Connect
- Webinars from NHI, FHWA, and other LTAPs

Montana LTAP provided Montana FHWA dissemination of Every Day Counts Dynamic Webinar information for their events and will continue to work with them for future EDC webinars.

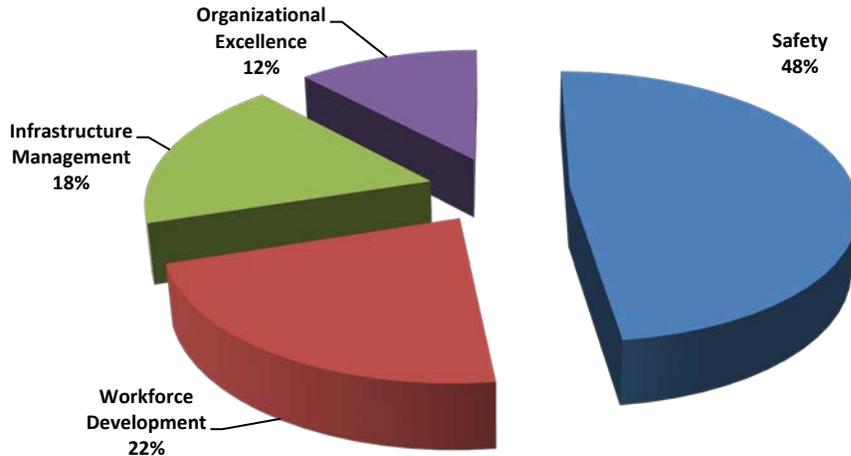
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## Appendix F: 2018-2019 Montana LTAP Tentative Workshop Schedule

Sept 5 – 6, 2018: Billings September 24 – 26, 2018: Great Falls	APWA Snow Rodeo & Equipment Safety League of Cities and Towns – Public Works Directors Meeting
October 9, 2018: Hamilton October 10, 2018: Townsend October 11, 2018: Great Falls October 16, 2018: Billings October 17, 2018: Glendive	MACRS Fall District Meeting: TBD MACRS Fall District Meeting: TBD MACRS Fall District Meeting: TBD MACRS Fall District Meeting: TBD MACRS Fall District Meeting: TBD
November 14, 2018: Great Falls November 14 - 15, 2018: Great Falls November 27, 2018: Missoula November 28, 2018: Great Falls November 29, 2018: Billings	Leadership MACRS Planning Meeting Winter Maintenance Winter Maintenance Winter Maintenance
January 28, 29, 30, 31, 2019: Helena	17 <sup>th</sup> Annual Safety Congress: Jan. 28 – Work Zone Technician Jan. 29 – Traffic Control Supervisor Jan. 30 – Traffic Control Supervisor Jan. 31 – Train the Trainer
Feb. 21, 2019: Helena	Asphalt Institute Conference
March 12, 2019: Havre March 13, 2019: Great Falls March 14, 2019: Helena	Work Zone Flagging Work Zone Flagging Work Zone Flagging
April 1, 2019: Great Falls April 2 - 4, 2019: Great Falls	MACRS 39 <sup>th</sup> Annual Spring: Pre-conference MACRS 39 <sup>th</sup> Annual Conference, Heritage Inn
April 9, 2019: Miles City April 10, 2019: Glendive April 11, 2019: Glasgow April 12, 2019: Billings	Work Zone Flagging Work Zone Flagging Work Zone Flagging Work Zone Flagging
May 7, 2019: Hamilton May 8, 2019: Conrad May 9, 2019: Bozeman May 14, 2019: Glasgow May 15, 2019: Glendive May 16, 2019: Miles City	MACRS Spring District Meeting: TBD MACRS Spring District Meeting: TBD
May 30 - 31, 2019 June 4, 2019: Bozeman June 5, 2019: Bozeman June 6, 2019: Bozeman	Regional Meeting: LTAP North Central Region Work Zone Flagging MACRS Executive Meeting LTAP Advisory Board Meeting

## Appendix G: Needs Assessment Survey Topics in 2018-2019 Workshop Schedule

### Four Focus Areas



**Infrastructure Management**

Sept. 5 & 6, 2018  
Snow Rodeo: Equipment Safety

Sept 25, 2018  
League of Cities and Towns: Road Management

Feb. 21, 2019  
Asphalt Conference:

May 7 - 16, 2019  
MACRS: Gravel Road Maintenance and Design

**Workforce Development**

Sept. 5 & 6, 2018  
Snow Rodeo: Equipment Safety

Jan. 28 - 31, 2019  
Safety Congress: Workzone Safety

April 1 – 4, 2019  
MACRS Spring Conference: Motivational Speaker, Leadership, Ethics

**Organizational Excellence**

Sept 25, 2018  
League of Cities and Towns  
Public Works Directors Meeting

Nov. 14, 2018: LTAP Leadership Course

November 14-15, 2018  
MACRS Planning Meeting

June 5, 2019: MACRS Executive Meeting

June 6, 2019: LTAP Advisory Board Meeting

May 2019:  
National LTAP North Central Meeting

**Safety**

**Worker Safety**  
September 25, 26, 27, 2018  
October 9 - 17, 2018  
MACRS Fall District Meetings

Jan. 28 - 31, 2019:  
Safety Congress: Work Zone Technician, Work Zone Traffic Control Supervisor, & Train the Trainer

March 12, 13, 14, 2019  
April 9, 10, 11, 12, 2019  
Work Zone Flagging, Work Zone Tech

June 4, 2019  
Work Zone Flagging, Work Zone Tech

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## Appendix H: Summary of Work Tasks

The following seven technical assistance work tasks were assigned by FHWA when LTAP was first created. Although each LTAP operates to meet its specific customers' needs, all were given these specific directives to fulfill each quarter. As electronic methods of communication and training are developed, Montana LTAP has progressively evolved to stay abreast with the most effective means of transportation technology distribution.

**1. Seminars/Training Sessions:** Training sessions provided by Montana LTAP are guided by the needs requested from our constituents. For meetings, conferences and training sessions, the following summarizes allowable costs under this agreement: facilities rental and necessary equipment, supplies, and meals and coffee breaks (when meals are an integral part of a conference or meeting). Montana LTAP presented webinar safety meetings that have and will continued to be used for safety meetings for all constituents.

**2. Information and On-Site Technical Assistance:** The LTAP program will continue to contract individuals who can offer expertise in a variety of subject areas and on-site technical assistance. LTAP will continue to update and develop listservs to enhance communication and share timely, pertinent information with all other transportation entities. Present listservs include Montana Association of County Road Supervisors (all 56 counties), Montana Association of Counties (all county commissioners), League of Cities and Towns (public works directors, mayors, and local city officials), and Montana Department of Transportation (employees). Our toll free line has proven a useful tool for clients as has our website providing training opportunities and links to other libraries, newsletters and transportation sites.

**3. Quarterly Newsletter:** The LTAP electronic newsletter provides current articles each quarter to Montana LTAP's audience. Articles are gathered from a variety of sources including various transportation partnerships Montana LTAP has developed. A lead article demonstrates local expertise in one of the four focus areas each quarter. Announcements of the latest DVDs and publications available are issued each quarter. The training calendar announces regional and national training opportunities in addition to LTAP's local workshops and all of LTAP's partners.

**4. Transfer of Technology Materials:** Funding will be directed to producing publications and DVDs, and on transferring to DVDs from our VHS collection, which contains material that supports in-house training opportunities. The library presently contains over 550 videotapes, 930 publications, 135 sets of software, and 98 DVDs. Links are provided under the Library heading on our website to additional resources for researching transportation topics. Montana LTAP will continue to provide webinar links for further training opportunities. At training sessions, handouts are provided so participants can update their colleagues on the information discussed at the workshops.

**5. External Communication:** Montana LTAP maintains a mailing list composed of the county road workforce, city and street constituents, county commissioners, public works directors, MDT employees, U.S. Forest Service personnel, and various private transportation entities. Its

development originated from the transportation workforce requesting training notifications, library information, quarterly newsletters, and technology research. Throughout the year the list is updated by phone and e-mail requests, address change notices, and conference attendees. With technological advances, LTAP is finding electronic communication via e-mail and our website is becoming more widely used by our audience. It also provides immediate notification.

**6. Evaluation:** Evaluations will continue to be collected at each workshop following the Kirkpatrick level I format to assess our training effectiveness. These evaluations indicate how training courses are valued as well as what is not effective. Over the past years our instructors and course content always scored favorably, in the 90th percentile. There is an area on the evaluation form where participants can express workshop needs. This information is tabulated and presented to the MACRS Executive Committee and the League of Cities and Towns when determining future training direction. Montana LTAP's quarterly report also summarizes the work progress within each of the four focus areas and is sent to the Montana LTAP Advisory Board members and WTI. The annual Advisory Board meeting allows direct input into LTAP's future planning. The FHWA reports of PAR (Performance Assessment Report) and FHWA Work Plan Addendum (Appendix B) provide overall accomplishments and activities, highlights and challenges faced by Montana LTAP over the contract period. These reports are also discussed at the Advisory Board meeting.

## 7. Future Classes

Potential Training Class	Sponsor	Partners
Acquisition Plan Reading - Real Estate Academy 2017	LTAP	MDT
Asbestos Awareness - Real Estate Academy 2017	LTAP	
Geotechnical Software Training	LTAP	WTI
Asphalt Recycling and Pavement Preservation	LTAP	MDT
Asphalt maintenance for small municipalities	LTAP	
Highway Plan Reading	LTAP	
Inspector Testing for Flexible Pavements, Advanced Structures, Compaction Testing and Traffic Work Zones	LTAP	MDT
PASER	LTAP	
Safety Studies	LTAP	
Signing & Markings	LTAP	
Tort Liability and Risk Management	LTAP	MDT      MACo
Traffic Signs & Pavement Markings	LTAP	MDT
Bridge Inspection Refresher Training	MDT	FHWA      NHI?
Highway Safety Manual (HSM) Focused Training Class	MDT	FHWA
Public Involvement - OES	MDT	
Purpose & Need Training - OES	MDT	FHWA
Relocation 201 - Advanced Residential Relocation Assistance		
Real Estate Academy	MDT	

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Relocation 202 - Advanced Business Relocation Assistance - Real Estate Academy (REA)	MDT
Road Diets Workshop	MDT
NHI - Bicycle Facility Design	NHI
NHI - Inspection and Maintenance of Ancillary Highway Structures	NHI
NHI - Principles and Applications of Highway Construction Specifications	NHI
NHI - Road Safety Audits/Assessments	NHI
NHI Bridge Maintenance	NHI
NHI Stream Stability and Scour at Highway Bridges for Bridge Inspectors	NHI
NHI-Combating Roadway Departures	NHI
NHI-Fracture Critical Inspection Techniques for Steel Bridges	NHI
Designing for Pedestrian Safety	WTI
Designing Pedestrian Facilities for Accessibility	WTI
Geotechnical Software Training (gINT)	WTI