

# Michigan County Engineers Conference 2021

## LTAP A Historical Perspective

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# Why Care About Local Agency Roads?

## State / Federal Roads



Cost per mile: \$3.3 million  
Total miles: 0.94 million miles

Total Asset Value: \$3.1 trillion

## Locally Owned Roads



Cost per mile: \$1.08 million  
Total miles: 3.23 million miles

Total Asset Value: \$3.5 trillion

Figures based on FHWA policy figures of 77% local ownership and 23% State and Federal

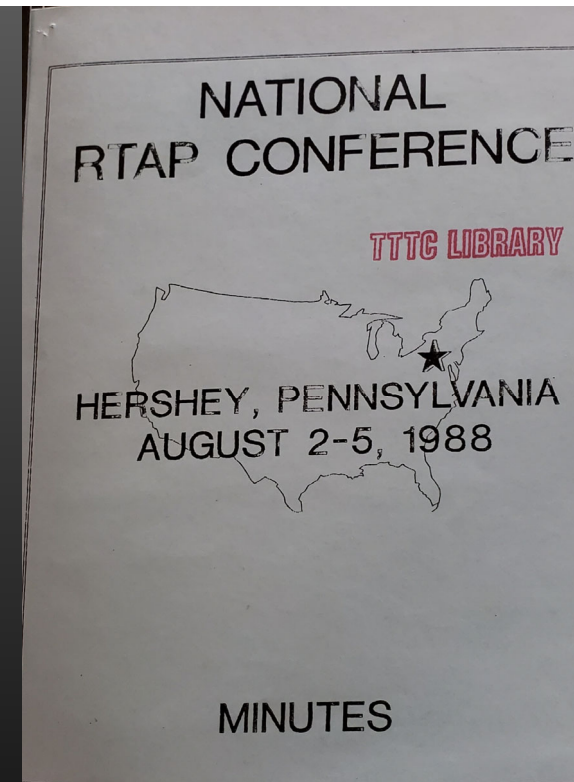
Photo Credit Hiclipart.com



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# Need for the LTAP Program

- 1970's –USDOT and state DOT's recognize problem
- 1981 Congress acts "to meet the growing demands placed on rural roads, resulting from increased urban sprawl and the increased size and weight of trucks carrying goods from farm to market."
- 1982 Rural Technical Assistance Program -10 center "pilot"
- 1986 Michigan Transportation Technology Transfer Center opens
- 1991 Name officially changed to Local Technical Assistance Program and centers established in all 50 states.





# LTAP Founding Principles

- Provide the appropriate local context for services
- Educate local transportation workforce (training)
- Technology transfer (use of new and best practices)
- Provide technical assistance (implementation)

## 1993 Michigan County Engineers Workshop

Wednesday, April 21, 1993

8:00 - 10:00 a.m. Registration

### Session I

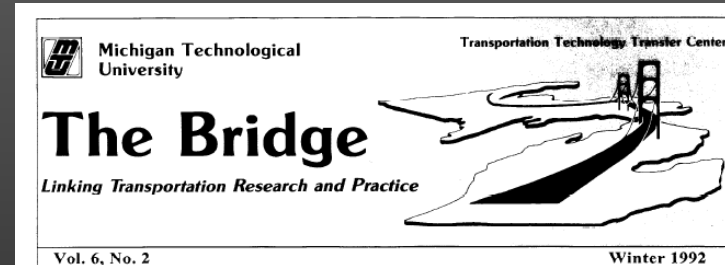
Moderator Ron Young, P.E.,  
Engineer/Manager, Alcona County Road Commission

9:00 - 9:45 a.m. Strategic Highway Research Program Update  
John Hibbs, Senior SHRP Engineer

9:45 - 10:00 a.m. Break

10:00 - 10:45 a.m. The Value of County Engineers and their Counterparts: Strategies  
to Expand the Shrinking Employment Pool  
Kathleen M. Waggoner, Ph. D., Department of Civil Engineering, Iowa State University

10:45 - 11:30 a.m. Minnesota Local Road Research Board and  
the Minnesota Road Research Project



## Soil Classification in the Field

When laboratory facilities are not available, simple field tests can be used to classify soils. These tests are used to determine gradation, plasticity, and dispersion.

### Gradation

To test the gradation of dry soil, spread a sample of the soil on a flat surface. Use a piece of stiff cardboard as a rake to sort the larger soil particles to one side (Figure 1). Estimate the percentage of particles larger than 1/4 inch (6 mm) and the percentage of fines (too small for the individual grains to be seen by the unaided eye). Estimate whether the larger particles have uniform size (poorly graded) or large, medium and small sizes (well graded).

Figure 1

When the soil is wet, break it up with a pencil and make estimates as in the dry soil test. The percentage of fines

inch of water in a clear glass and, then, add enough soil to fill the glass to the 1/4 level. Add water until the soil is just covered. Mark this level with a rubber band. Fill the jar 3/4 full with water and stir the mixture vigorously. Let settle about a minute and a half and mark the height of soil that has settled out (Figure 2).

Figure 2

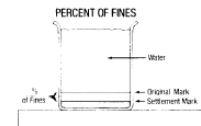


Figure 3

of the other hand (Figure 3). If the ball gets shiny and wet on the surface, it is mostly fine sand or silt. Clays have little or no reaction to this test and simply get messy.

Continued on page 7



1992 Michigan  
Conference  
March 5&6  
Assistant, Michigan  
County Engineering  
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# Focus of Services

## 1982-1992 Services focused on providing access to knowledge

- Basic skills and reinforcement learning
- Video library
- Publications library
- Mail distribution list (access to locals)
- Newsletters to distribute information

## 1992-2002 Innovation becomes an added focus

- Use of technology (computers)
- New process / products
- Internet starts to change access to information

Fall 1992 The Bridge Fact Sheet Page 1

### The MALI Database Telecommunications And Computers Working For You

Many of you are already familiar with MALI and its uses. It has been used effectively to locate crashes for the past two decades. Over the years it has undergone many changes to increase its efficiency.

**The History Of MALI**

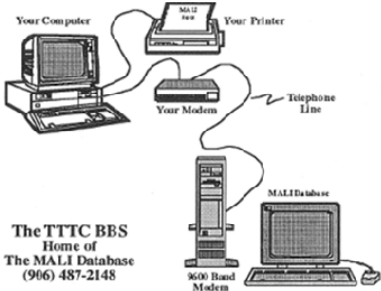
The MALI project was undertaken in the mid-70s by the Michigan State Police under a federal grant. The purpose of the grant was to develop a computer system that could locate crashes site-specifically. Michigan's system was intended to be a model for similar systems in the other states.

By 1976, the system was up and operational. Initially, the database included information about crashes by city and county, but site-specific information was not yet available. It became obvious that, to aid in selective enforcement and engineering efforts, site-specific data was needed. This problem greatly increased the scope of the project. Before anything else could be done, every street in the state had to be indexed.

Through the use of Act '51 maps, the Office of Highway Safety and Planning

uted by full-time programmers who worked out the bugs that tend to occur in mainframe systems. Other full-time staff members kept the database current by coding in new roads and changes in old roads. Sometimes this

You will find that MALI remains much the same, although there are a few differences now that the database is accessed through the TTTC. The main difference will be the amount of time required to access a



The diagram illustrates the hardware setup for accessing the MALI database. It shows a 'Your Computer' connected to a 'Your Modem', which is then connected to a 'Telephone Line'. A 'Your Printer' is also connected to the computer. The modem is labeled '3000 Baud Modem'. The database is represented by a computer monitor and keyboard, labeled 'MALI Database'.


**The TTTC BBS  
Home of  
The MALI Database  
(906) 487-2148**



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# 1988 RTAP (LTAP) Conference

- Should I do a live satellite videoconference?

 **Teleconference Tips**

SHOULD I DO A LIVE, SATELLITE VIDEOCONFERENCE?

WHAT DOES IT COST?

January 1988

**YOUR OBJECTIVE**

A live, satellite videoconference, no matter how it is sent or delivered to your target audience, is more expensive than other forms of teleconferencing, such as audioconferencing, audioconferences plus videotapes at every site, computer conferencing, etc. When is it cost effective? When is it truly needed? Here are some questions to think about, as you decide:

**VISUAL NEEDS**

- 1) What is your communications/training objective? What do you want people to do as a result of your conference?
- 2) Are there visual communication/training needs? What are they? Could they be accomplished by alternative means (handouts, videotapes, slides, computer graphics, overhead transparencies, etc.?) If there are no real action-oriented visual needs, would an audioconference, plus alternative visuals at every site be the answer? And, if there are no visual needs of any kind, wouldn't an easy, quick-to-arrange, cost-effective audioconference be the right approach?

**TWO-WAY AUDIO?**

- 3) Does the conference need to be interactive? In other words, do you need two-way audio or sound capability from many, perhaps all sites through a telephone call-in system? If not, you may be better off, cost-wise, to simply send videotapes to all sites so they can view them at their convenience. A true video conference is live and interactive!

U.S. Department of Agriculture • Office of Governmental and Public Affairs • Office of Information • Video and Film Division • Washington, D.C. 20250



# Focus of Services

## 2002-2012

- Internet opens access to information
- Bringing “research to practice” added focus
- Translating research and implementation of research
- Education becoming more specialized to local needs and context
- Organization of National LTAP Association (more state to state sharing)



## 2012-2021

- Innovations being pushed from local to national
- Education topics meet needs for license continuing education or other standards
- Engineering staff specialization
- Generating applied knowledge or tools on local topics
- Increased role for the center to represent local agencies on national issues



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# What Hasn't Changed?

- Limited resources – focus on filling gaps
- Locally actuated services (you drive it!)
- Need to identify next big challenges
- Focus on specific problems to try to generalize solutions
- Personal relationships remain critical





# What is the future of LTAP?

- Constant adaptation
- Education to cover skills loss
- Locally generated and focused applied research
- Using innovation and technology to solve local agency problems



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# Where Do You Come In?

- Talk with us!
- Submit ideas / questions / problems
- Give education feedback
- Talk to LTAP advisory board
  - Bruce Kadzban
  - Kurt Zachary
  - Larry Brown



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