



US Department of Transportation  
Federal Highway Administration

# ROAD BUSINESS



Vol. 14 No. 3

Fall 1999



*Deana Aulisio and Keith Bellew surveyed over 400 miles of road in seven New Hampshire towns this summer*

## On the Road in New Hampshire

### *Students Provide Plans for Local Road Maintenance and Repair*

For the past six summers UNH students have helped 69 municipalities manage their roads. They inventoried and identified conditions of over 3600 miles of paved and unpaved local roads. They have helped towns and cities reap the benefits of a road management system.

Many municipal officials want a list of maintenance needs. They desire long-range plans, and budgets to accomplish them. However, many face a major hurdle. They lack the resources to inventory the road network and identify surface and drainage conditions. The summer program provides that resource. The students also enter data and run reports using the Road Surface Management System (RSMS).

The students and the local road manager form a road management team. The road manager provides maps and information for RSMS. After the

students inventory and identify conditions, they enter the data into the RSMS software. They then provide road managers with summary information.

The maintenance summary lists a set of repairs appropriate for each road section. After the road manager selects desired repairs, the students enter the choices in RSMS. They then prepare management and budget reports with cost estimates for each road section. The reports also contain totals for annual and capital improvement budgets. The UNH T<sup>2</sup> Center forwards a formal report to the municipality with a diskette containing the RSMS data.

The UNH T<sup>2</sup> Center will repeat this service in the summer of 2000. It will hire and supervise the students. Towns and cities will reimburse the Center for the costs. In October, municipalities will receive a letter with a worksheet to estimate a cost for budgeting. This information is available on our website. Road managers and other officials can call the UNH T<sup>2</sup> Center for an estimate or additional information.

#### ALSO IN THIS ISSUE

Sheldon Morgan.....	2
Master Road Scholars .....	3
Shoulder Maintenance.....	4
ABS.....	5
Working with Boards .....	6
DigSafe Changes.....	7
NHPWMEA .....	8
TIA.....	8
Publications.....	9
Videos .....	10
Milestones.....	11
Calendar .....	12

Road Business is a quarterly publication of the:

Technology Transfer Center  
University of New Hampshire  
33 College Road  
Durham NH 03824  
603-862-2826  
800-423-0060 (NH)  
Fax: 603-862-2364

kathy.desroches@unh.edu  
http://www.t2.unh.edu

#### UNH T<sup>2</sup> Center Staff

David H. Fluharty  
LTAP Director  
Charles H. Goodspeed  
TRCG Director  
Kathy DesRoches  
Assistant Director and  
Road Business Editor  
Kathalene Cairns,  
Stefanie Fishman  
Project Assistants



The Technology Transfer Center at the University of New Hampshire (UNH) is supported by the Federal Highway Administration (FHWA), the New Hampshire Department of Transportation (NHDOT), and UNH. Any opinions, findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect the views of the FHWA, NHDOT, or UNH.

Any product mentioned in *Road Business* is for information only and should not be considered a product endorsement.



## Master Road Scholar, Sheldon Morgan, Completes his 200<sup>th</sup> Hour of Training

In 1995 we recognized Sheldon Morgan for attaining Master Road Scholar with 100 hours of training. It is a great pleasure to recognize Sheldon for his continuing efforts for education and self-improvement. This past spring he completed 200 hours of training.



Sheldon, Director of Public Works in Gilford, is the first person to reach this milestone. Sheldon is committed to training. He says, the "important things are to keep active and act responsibly as a public official." To do this, "one must stay on top of each new technology and stay versed in the technical end." Even though he has gone through the training process, he "still needs a refresher because people tend to forget things they don't do all of the time." He "retakes classes to stay current."

Sheldon has been with the Town of Gilford for 28 years and the Director of Public Works for 11. Like most towns, it has its share of problems. It suffered in the ice storms of last year, although Sheldon was quick to point out that it didn't suffer as badly as other towns. In addition, the Gilford Public Works Department hasn't been fully staffed in 5-6 years. Even with the staffing shortages, Sheldon attends classes whenever he can.

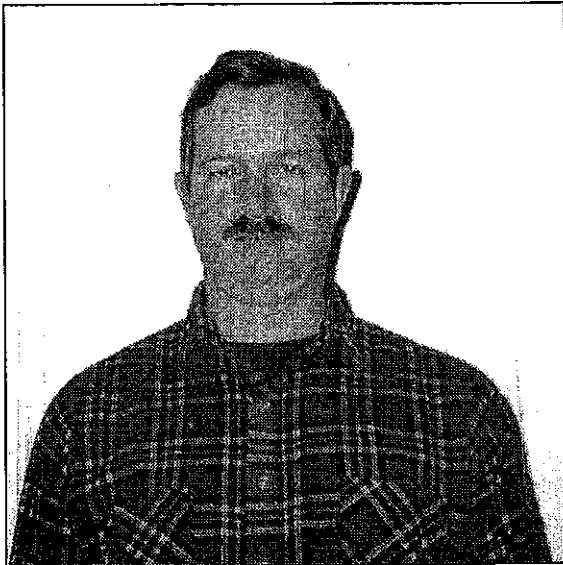
### Mutual Aid for Public Works

#### *Hurricane Floyd*

Hurricane Floyd was the worst hurricanes to hit the eastern seaboard since '38. The storm hardly affected New Hampshire. With Mutual Aid, municipalities have the resources available to them of all communities' who are part of the agreement. Some communities have informal arrangements with neighbors. Neighbors might be unable to help because they may be affected by in the same emergency. Informal agreements are not endorsed by FEMA and may be ineligible for reimbursement. Mutual Aid for Public Works is a formal agreement.

For more information on Mutual Aid, contact Kathy at the UNH T<sup>2</sup> Center or Chum Cleverly, Director of Public Works in Bow at 228-2207.

## Master Road Scholar



*Master Road Scholar Donald Atwood*

Donald Atwood has been Director of Public Works in New Hampton for about three months. He had previously been the Road Agent in Bridgewater for 19 years. Prior to becoming Road Agent in Bridgewater, he worked as a laborer and equipment operator and studied forestry at UNH.

Donny takes many classes because he likes to obtain outside ideas from the courses and talking to others during the breaks. He knows others have the same problems as he does, and he's interested in seeing their different approaches to similar problems.

Donny believes that he was offered his current position because he is a Master Road Scholar. He sends his employees to training whenever he can because he likes them to get ideas outside of their own work environment.

Donny and his wife, Sindee, have two children. Donny likes to take the kids trout fishing. He also enjoys camping, hunting, and watching the Winston-Cup races. He is a Deputy Chief with the Fire Department.

Congratulations to Master Road Scholar Donny Atwood!



*Master Road Scholar Walter Kiblin*

Walter Kiblin is the Road Agent in Lyndenboro. Walt was appointed as Road Agent two years ago. Before his appointment, he worked as an apprentice plumber and in the highway department as a laborer, truck driver, and heavy equipment operator.

Walter takes classes because he wants to improve himself in order to do a better job. He sends his employees to classes whenever he can.

Walter has been married to Misty for four years. They are busy caring for two dogs, two miniature donkeys, and a horse. Walter's wife is trying to train the donkeys to pull a trailer. In their spare time they like to scan flea markets and yard sales to look for Breyer Horses. They have over 1000 horses, which Walter has build many shelves for.

Walt does other woodworking along with target shooting. His family owns a camper in Colebrook and he likes to go up there whenever he can. Walt grew up in Frankestown. He currently lives in the house that was owned by his parents.

Congratulations to Master Road Scholar Walter Kiblin!

# Shoulder Maintenance

## *Too Important to Defer until the Spring*

Road shoulders are an important part of the roadway. Yet, in the rush to complete projects before winter, some agencies defer shoulder work until spring. Deferral can result in shoulders not serving all their purposes, which are:

- To provide side support to the pavement.
- To drain water away from the pavement and into ditches.
- To provide a safe area for emergency use by vehicles.

To fulfill these purposes, the shoulder and pavement edges must be level, and the shoulder slope steeper than the pavement slope. These characteristics are necessary to drain snowmelt as well as rainfall. With non-level, rutted, or inadequately sloped shoulders, snow-pack and ice accumulate at the pavement edge. Snow and ice melt fastest next to the pavement, and create a mini-ditch. Water will seek the easiest path, which is often underneath the pavement. Freeze-thaw cycles crack the water beneath the pavement and loosen the base material beneath it. In a matter of days, water penetrates further into the roadway, and freeze-thaw cycles cause additional damage. This process can cause alligator cracking several feet wide.

Also problematic are shoulders with steep or eroded slopes. They lead to more erosion, which weakens the pavement edge. Eroded materials travel into ditches, and ultimately into lakes and streams. Agencies should repair these situations in the fall to reduce the effects of spring snowmelt.

### When to Repair Shoulders

Fall shoulder repairs, therefore, slow roadway deterioration, save money, and reduce environmental impacts. Agencies should repair dirt or gravel shoulders that show one or more of the following conditions:

1. The shoulder surface shows ruts and corrugations over one inch deep.
2. The slope is too flat to provide good drainage.

3. The shoulder has eroded into cuts and gullies, causing cracks in the pavement edge and/or excessive material being carried into ditches.
4. There is more than a two-inch drop-off from the pavement to the shoulder.

Asphalt shoulders need repair if they are cracked, or there is gap along the pavement edge.

### How to Repair Shoulders

Highway departments can correct dirt or gravel shoulders by "reshaping" or "replenishing." Reshaping corrects the first two defects. With a motor grader, crews can shape and smooth the shoulder slope. They should compact the shoulder, ensuring level shoulder and pavement edges.

Replenishing corrects the third and fourth defects. Crews reshape and compact the existing surface. They then add, spread, and compact additional material. The added material should be granular and well graded.

Shoulders must support vehicle loads. Their materials, therefore, should be similar to the road base. Before reshaping or replenishing, it might be necessary to remove organic debris, clays, silts, and other unsuitable materials.

Asphalt shoulder repairs are the same as repairs applied to the road. Sealing gaps between the shoulder and pavement are necessary to prevent freeze-thaw effects.

Highway departments should also consider reshaping ditches. This is especially important if poor ditch drainage will affect the repaired shoulder.

Many UNH T<sup>2</sup> Center publications and videos describe details of these repairs. Call or email the office for desired information.

#### Sources

- Guide to Common Road and Equipment Maintenance Procedures*. 1989. Louisiana Transportation Research Center. Baton Rouge, LA.  
*Shoulder Maintenance*. 1995. Pennsylvania Local Roads Program Technical Information Sheet #62. Harrisburg, PA.

# Anti-Lock Braking Systems

*Mandatory on All New Medium and Large-Sized Trucks*

*By Kathalene Cairns*

Anti-lock Braking Systems (ABS) help drivers keep control of their vehicles during emergency stops and hard braking. They are mandatory on all trucks with a GVW rating over 10,000 pounds manufactured after March 1, 1999. This regulation is intended to improve driver and roadway safety. However, it may require some drivers to unlearn old braking habits. ABS brakes, unlike conventional brakes, should not be pumped. In addition, new vehicle and maintenance costs will be higher.

## Costs

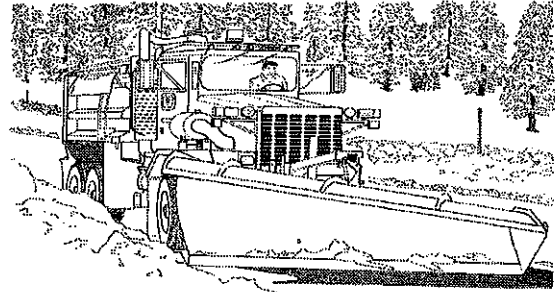
The cost of ABS is included in the vehicle purchase price. Dealers and manufacturers acknowledge that ABS increases the price of the vehicle. Some of the cost is due to modifications that allow the system to physically fit in the available space.

Another cost to local agencies will be training technicians to work on the new ABS. They will have to become familiar with the system circuitry, diagnostic literature, and trouble-shooting steps. Training is available from brake manufacturers. As most people know, training is money well spent: well-trained technicians often save agencies time and money.

## Driving and Control

Drivers should be aware that the ABS tests its own circuitry when the engine is started. The 'ABS' light comes on, and goes off after the initial test. If the light remains on, or comes on during normal operation, there is a problem with the system. Drivers should then brake as they normally would without ABS, i.e. pumping the brakes.

Experienced truck drivers maintain a moderate degree of steering control by pumping conventional brakes. Stopping distance is nearly the same for pumped brakes as it is when the brakes are locked. However, with locked brakes the driver has little, if any, control over vehicle direc-



tion. ABS pumps the brakes automatically during emergency stop. It prevents wheel lock and allows the driver to maintain a higher degree of control.

Because ABS, or pumping conventional brakes, slows the truck while still allowing the wheels to rotate, vehicles maintain better tire-to-road contact. Drivers, therefore, have more steering control. ABS pumps the brakes much faster than a human can pump conventional brakes, and is thus more effective in maintaining control. Also, it works on individual wheels so they all slow at the same rate. In spite of the fact that ABS does not change vehicle-stopping distance, the driver might still be able to avoid an accident by steering clear of it.

Opponents of ABS feel that the driver is no longer in charge of how the brakes work. However, in most studies ABS is only engaged in 2-3% of all braking occurrences. In almost all of the circumstances when ABS was engaged, the driver could not react fast enough to pump the brakes.

Most people who have tested ABS in panic situations feel positively towards them. ABS, as stated before, does not shorten stopping distance. If the driver doesn't leave enough room to stop, an accident could occur. Drivers must apply good judgement whether or not their vehicle has ABS.

Special Thanks to

Joe Schwendeler of Bendix Brakes,  
John A. White, instructor, of Fleet Pro: Maintenance Seminars and Consulting,  
Phil Webster of Howard P. Fairfield, Inc.

# Improving Relations with Public Officials

We frequently hear of the benefits of good communication. One important benefit for road managers is to improve relationships with elected officials, boards of selectmen, city councils, town councils, or whomever. These strategies will help keep lines of communication open between the road manager and other officials:

- Keep elected officials informed
- Act as a team
- Help board members to look competent
- Stay out of campaigns
- Be friendly with board members
- Define departmental responsibilities

## Communication

**Keep Elected Officials Informed.** This is the first step to improve relationships with governing bodies. Sheldon Morgan, Public Works Director in Gilford and Master Road Scholar, said, "I keep the Board apprised of Public Works operations through attending their meetings and by supplying them with monthly progress reports on various projects. Keeping them informed is the best tactic to use."

James Wheeler of Berlin reinforced this idea; "It's our job to properly educate elected officials so that they can make informed decisions. With that as the primary objective, we need to communicate facts with honesty, integrity, etc. Communication is key. You may not always be able to tell them what they want to hear. However, as long as it is honest and is backed up with facts, they will respect you. Respect is what you want. An elected official can respect you and still not like you. That situation is much better than the reverse."

**Act As a Team.** The highway manager and board of selectmen are a team, working together to improve their community. As with any good team, compromise is essential. Team members must often negotiate to a mutually agreeable outcome. When road managers and elected officials make joint decisions, they should stand together as a team when the decision is announced. They should determine together what the message should be.

Road managers should allow the board to pass on good news to the citizens.

**Help board members to look competent.** Ensuring board and council members look competent is critical to the road manager's success. Highway managers can do this by keeping the board informed and by being available to answer questions. As elected officials, board members will be more supportive if they understand what the highway department is doing. Informed Board and Council members will be more apt to vote with the highway department.

Elected officials dislike surprises, particularly when they find out about highway department actions from the public. They appear foolish and often blame the Road Agent or Public Works Director.

Highway managers should help all Board and Council members. Highway department managers look competent by supporting whole governing boards to do their job effectively. If there is a disagreement, disagree in private.

When an elected official turns over a complaint to the highway department, the manager must treat it with importance. When the complaint is resolved, the highway manager should let the referring official take the credit. If it cannot be resolved to the citizen's satisfaction, the highway manager should provide a thorough explanation.

**Stay out of political campaigns.** Whether appointed or elected, road managers are municipal employees and public servants. Traditionally, government officials remain neutral in elections. In addition, if the candidate the road manager lobbies for loses, they then end up working for the opponent.

**Be friendly with board members.** This helps to breakdown stereotypes of highway employees. Mike Bobinsky, the former Director of Community Services in Dover, said he "invites city officials to special events such as Public Works Week events, lunches, retirement parties, etc... The Council needs to see employees and officials of DPW in the same light as they would view a police or fire operation."

Department heads should invite elected officials to functions where they associate with managers and crews as people. Functions with family members are especially effective. Even if officials cannot attend, or stay for a very short period of time, they will appreciate the gesture.

**Define Department Responsibilities.** Clear department policies effectively define responsibilities.

When policies are established and followed, the board and public know what to expect from the highway department. If there is ever a question as to why something was done in a particular way, everyone, from a selectmen to a part-time seasonal employee, can point at a policy as a standard of operation.

Policy development can itself improve relations with elected officials and the public. As a decision making tool, policy creation allows the focus to be on an issue rather than on a particular incident or person.

Established job descriptions provide the same benefits as having written policies. The board and employee know what is expected of them without any gray areas.

## Other Practical Advice

If a Road Manager is having difficulties with their board, these steps can change the situation. Clear two-way communication fixes many problems. Road managers should also talk to road managers in surrounding communities. They can often offer a few pointers to make life easier. The following are examples.

Before bringing a proposal before a Board or Council, the road manager should consider the likelihood of it passing. If slim, they should use the time to lay the groundwork. For example, they can take board members into the field to see problems. If this isn't possible, they can take slides or a video to show the board. Pictures can help to make a case. They can invite "experts" to speak in favor of the proposal. A concerned citizen or salesperson can be a strong ally.

Managers should be aware of the public perception of the highway department. Richard Lee, the Road Agent in New London and Selectman in Milan, suggests that equipment is kept clean and

employees look busy. He said, "citizens like it when you care for your equipment and it doesn't look good to allow employees to lean on shovels." Also to maintain a good relationship with New London Selectmen, he keeps them informed of happenings in the highway department. He keeps paperwork up to date so he can answer questions as they arise.

Chum Cleverly, a Master Road Scholar and the Director of Public Works in Bow, said, "Don't take anything a Selectmen says personally. Try to look at things from their point of view whether you agree or not. Try to have all your ducks in a row, and keep them informed."

Chum writes a lot of memos to his Board. Then, when a citizen questions a board member, the board member is informed. This makes them look good and they appreciate it. He also suggests being specific when explaining needs of the highway department. Explain the costs of repairs and how doing something will benefit the town. Also, he suggests that road managers write and maintain good notes.

Source:

*Improving Your Public Relations*, Special Bulletin, South Dakota, 1996

Muntz, Hans, *How to run a road department*, Better Roads, October 1994

Wiggins, John, *The Best Public Works Department*, R2T2, Fall 1997

## New DigSafe Rules

*Effective January 1, 2000*

Prior to January 1, 2000 premarking was optional it is now mandatory. It must be done before contacting DigSafe for a permit. Premark the area where the excavation will occur. Identify the perimeter of the proposed site of excavation, in an appropriate manner, with white paint or other suitable white markings on nonpaved surfaces. Premarking must not interfere with traffic or pedestrian control, or be misleading to the public. It is not required on any continuous excavation over 100 feet in length. If over 100 feet, the excavator must indicate the perimeter of the excavation in a manner acceptable to the excavator and utility operator.

Other changes involve increasing fines.

## Keith Noyes becomes NHPWMEA President



This past spring, Keith Noyes, Director of Public Works in Exeter, became President of the New Hampshire Public Works and Municipal Engineering Association (NHPWMEA). Keith appears to be at home in his new post and has started to put his mark on the association.

Keith's first order of business was to send a letter to the membership explaining his goals for the next year. This letter was very well received. His most ambitious goal is to begin development on a "boiler plate" construction specification book that will cover water, sewer, drain and highway work. This book will be available to anyone.

The association had a fall social in September with proceeds slated for scholarships. The fall meeting will be held at the New Hampshire Municipal Association (NHMA) Show with presentations on Quality Based Selection, Drug and Alcohol testing, and the New Hampshire Municipal Bridge Aid Program.

Keith has served on the 13 member of the NHPWMEA board for the past two years. Membership of the board is made up of smaller and larger towns, industry, APWA, and an educational representative.

Kathy DesRoches serves on the board. To join the association or learn about any of its activities, contact Kathy at the UNH T<sup>2</sup> Center.

## National Transportation Industrial Alliance

### *Responds To Local Agency Issues*

The National Association of Transportation Technology Transfer Centers recently created the Transportation Industrial Alliance (TIA). The TIA's purpose is to help local transportation agencies.



Local agencies can participate in two ways.

1. The TIA program requests road managers that have used a new product or service to contact the UNH T<sup>2</sup> Center. It will then forward the information to the TIA who will make it available to other agencies nation wide.

2. Volunteer to act as a test site for new technology as they are developed. If interested contact he UNH T<sup>2</sup> Center.

Private entities may also participate in TIA services. Contact Gib Peaslee, TIA Membership Coordinator, at (352) 392-2371 Ext. or by E-mail: [Alliance@ce.ufl.edu](mailto:Alliance@ce.ufl.edu)

*No activity of the TIA or the UNH T<sup>2</sup> Center should be construed as an endorsement either implied or otherwise for any specific vendor, product, research, or service.*

### **PW.NET**

Want to know what is happening in other towns? Need a place to ask questions of other Public Works Officials? Then, subscribe to PW.NET! It's free. Send an email message to: [kathy.desroches@unh.edu](mailto:kathy.desroches@unh.edu)

In the body of the message type:  
Add PW.NET your name

For Instance:

Add PW.NET John Doe



# Publications

from the  
University of New Hampshire Technology Transfer Center

Copies of the following books and pamphlets, and our complete list of publications, are available through the UNH T<sup>2</sup> Center. When requesting an item with a charge, please include the check with your form. If ordering by mail, follow the instructions below. To request by telephone, call 603-862-2826, or in NH, 800-423-0060. You can also request by fax to 603-862-2364 or by e-mail to kathy.desroches@unh.edu

## The following materials are available free of charge.

\_\_\_ *UNH T<sup>2</sup> Center Video Catalog.*

\_\_\_ *Asphalt Texturing Information Package.* A grouping of information on a process that textures asphalt to give it the look of brick or stone. The Package includes information on who has done it, what it looks like, and whom to call for more information

\_\_\_ *New! Emergency Response Guide 1993.* A guide-book for first responders during the initial phase of a hazardous materials incident.

\_\_\_ *Vegetation Control for Safety.* A guide for street and highway maintenance personnel. Goes through site clearance and safety operations for vegetation control.

\_\_\_ *Calcium Chloride Package.* A package of articles and pamphlets explaining the benefits of deicing with calcium

\_\_\_ *Flexibility in Highway Design.* A guide written for highway engineers and project managers who want to learn more about the flexibility available to them when designing roads. It illustrates successful approaches used in other highway projects.

\_\_\_ *Legislation on Local Road Weight Limits, 1995.* Details the compliance required of the towns and cities when determining load limits, and has a sample Weight Limit Ordinance and Road Bond Form.

\_\_\_ *Guidelines for Spring Road Use Restrictions.* A system that must be started in the fall, for setting load limits in the spring.

\_\_\_ *Improving Highway Safety at Bridges. On Local Roads and Streets* This guide discusses effective low cost methods of improving and enhancing bridge and bridge approach safety.

\_\_\_ *Maintenance of Small Traffic Signs.* A guide for maintaining small traffic signs geared toward maintenance personnel.

**The following materials involve a minor charge. Please send a check with the form when requesting one of these materials.**

\_\_\_ *Manual of Practice for Anti-icing of Local Roads.* A rewrite of *Manual of Practice for an Effective Anti-icing Program* published by the FHWA, this UNH T<sup>2</sup> Center workshop notebook tells the difference between deicing and anti-icing, and it describes aspects of a good anti-icing program. **\$15**

## To Request Material By Mail

Check the items you would like to receive. Fill out this form and include a check in the envelope, if necessary. Cut out this page and mail to the UNH T<sup>2</sup> Center.

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Check is enclosed payable to: University of New Hampshire

\$15 \_\_\_\_\_

# Videos

from the  
*University of New Hampshire Technology Transfer Center*  
*Road Business, Fall 1999, Vol. 14, No. 3*

The following videos are available from the UNH T<sup>2</sup> Center Video Library. You can have five videos for a two-week period with no charge. To request by mail, check the videos you would like to borrow (up to 5 at a time), fill out the mail request form, staple closed, affix stamp, and mail. To request by telephone, call (603) 862-2826 or (800)423-0060 (in NH). Visit our complete publication and video catalog on our website at <http://www.t2.unh.edu>.

- \_\_\_ **DC-212, Effective Snow Fences**, 20 min. Demonstrates the benefits of snow fences.
- \_\_\_ **DC-251, The Importance of Road Drainage**, 19 min. The basis for this film is that if you do not plan the drainage of water that way you want, nature will drain it for you. Describes surface and subsurface
- \_\_\_ **DC-252, Roadway Design: Balancing Safety, Environment, and Cost**, 13 min. Emphasizes the importance of considering safety, environment, and cost when designing a road. Explains how engineers must cooperate with the public in coming to a mutual agreement when constructing a roadway.
- \_\_\_ **DC-254, Soil Erosion and Sediment control**, 28 min. Shows how soil erosion and sedimentation are related. Describes in detail various types of erosion and erosion prevention/control procedures. Stresses the need for adequate control of erosion in order to minimize the amount of soil lost each year.
- \_\_\_ **M-206, The Choice is Yours**, 18 min. Preventive maintenance on diesel engines is stressed to get maximum life from the engine.
- \_\_\_ **M-207, Signals: Read 'Em or Weep**, 20 min. How to indicate equipment problems through signals.
- \_\_\_ **M-208, Down is Up**, 20 min. Preventive maintenance is stressed to reduce down time on construction sites.
- \_\_\_ **M-215, Guidelines for Spring Highway Use Restrictions**, 26 min. Shows where, how and when to post limits on roads in the spring. Discusses criteria for placing and removing restrictions, where to apply them, how much to restrict loads, and when to remove restrictions.
- \_\_\_ **M-238 Smoothing and Reshaping of Earth and Gravel Roads**, 20 min. Shows the steps needed for maintaining and repairing earth or gravel roads. Smoothing and reshaping are covered separately, and equipment is discussed.
- \_\_\_ **M-247, Planning and Organizing Winter Operations**, 12 min. Preparations for winter operations including ordering parts and materials, stock piles, checking drainage areas, rental agreements, snow plowing map, crew, and staff meetings.
- \_\_\_ **Video Catalog**.

Place  
Stamp  
Here

**Technology Transfer Center**  
**33 College Road**  
**University of New Hampshire**  
**Durham, NH 03824-3591**

## Milestones:

*Bruce Caillouette* is the new Road Agent in Danville.

*Ralph Carter* has resigned from Sanbornton

*George Conkey* is the Road Agent in Dorchester.

*Steve Gagnon*, from the City of Concord and Master Road Scholar, passed away in July.

*Larry Gilpatric* is the new Road Agent in Bridgewater. He was with NHDOT District 3.

*Edwin Keith*, formally of Whitman and Howard Engineering, passed away in July.

*Carl Morin* is the new Road Agent in Chester.

*Bruce Russell* is the new Road Agent in Westmoreland.

*Robert (Joe) Smith* has retired from the Town of Walpole after 30 years of service.

*Richard St. Hilaire* has left the Town of Kingston, and is working for Brox. *George Mayhew* is acting as Road Agent.

*Dana Wright* has left Howard P. Fairfield and has gone to work for EW Sleeper Inc. as the General Manager.

---

## Websites:

More helpful websites for Public Works employees. Here are just a few. If you have others that your colleagues could benefit from, send the urls to [kathy.desroches@unh.edu](mailto:kathy.desroches@unh.edu). We'll publish the site and your name in *Road Business*. (No commercial sites please).

UNH T<sup>2</sup> Center: <http://www.t2.unh.edu>

This quarter the *Road Business* will concentrate on sites that have to do with the year 2000.

ATSI- (Athens Technical Specialists, Inc.,  
Manufacture of Conflict Monitor Testers)  
<http://www.atsi-tester.com/y2k/y2k.html>  
Compaq Computers <http://compaqsql.t1.com/y2k/>

Dell Computers <http://www.us.dell.com/year2000/>

Eagle Traffic Control Systems (Manufacturers of  
Traffic Control Devices)  
<http://www.eagletrcs.com/y2k/y2k-w.htm>

Eberle Design, Inc. (EDI, Manufacturer of conflict  
monitors and malfunction management units)  
<http://www.editraffic.com/>

Gateway Computers  
<http://www.gateway.com/about/y2k/faq.shtml>

IBM <http://www.ibm.com/IBM/year2000>

IDC (include Multisonics, Traconex, VMS, IDC  
Guardian Conflict Monitors)  
<http://www.webworldinc.com/idc-traffic/year2000.htm>

Intuits Year 2000 Resource Center  
<http://www.intuit.com/corporate/year2000/index.html>

Microsoft <http://www.microsoft.com/>

Peek Traffic Systems (Manufacturer of Traffic  
Controllers)  
<http://www.peak-traffic.com/press/year2000/memo/>



# Road Business

Technology Transfer Center  
 University of New Hampshire  
 33 College Road  
 Durham NH 03824-3591  
 603-862-2826 or  
 800-423-0060 (NH)  
 Fax: 603-862-2364  
 kathy.desroches@unh.edu  
 http://www.t2.unh.edu

Bulk Rate  
 US Postage  
 Paid  
 Permit No. 2  
 Durham NH

## Calendar

September				
27	28 Mutual Aid Orientation—Gilford	29 Winter Operations-- Epsom	30 Winter Operations-- Hillsborough	
October				
4 Incident Command System for PW-- Manchester	5 Incident Command System for PW-- Manchester	6	7 SIMS— Center Harbor Brakes Workshop-- Concord	8
11	12 Mutual Aid Orientation—Lancaster	13 Brakes Workshop-- Somersworth	14	15
18	19 Mutual Aid Orientation—Raymond Chainsaw workshop—Gorham (NHTOA)	20 Brakes Workshop—Claremont Chainsaw workshop—Gilford (NHTOA)	21 Pulverized Glass Aggregate—Campton Chainsaw workshop—Warner (NHTOA)	22
25	26 Project Management—Littleton Chainsaw workshop—Dublin (NHTOA)	27 Chainsaw workshop—Raymond (NHTOA)	28	29
November				
1	2	3 NHMA Conference	4 NHMA Conference NHPWMEA—Fall Meeting	5
8	9	10	11	12
15	16 Project Management—Rochester	17	18 Pulverized Glass Aggregate-- Hillsborough	19

- For NHPWMEA Events, contact Barbara at 225-8520
- For NHTOA Events, call 224-9699