M A S S

INTERCHANGE

Volume 17, Number 1 Winter 2003

IT'S GONNA COST YOU IN MA

Work Zone Fines Double

This new legislation, which went into effect November 7, 2002, modifies the Massachusetts General Laws, Chapter 90, Section 17.

Massachusetts 182nd General Court -- 2002 Regular Session
2001 MA H 867
Enacted
8/07/2002
Walsh
HOUSE No. 867

Chapter 231.
THE COMMONWEALTH OF MASSACHUSETTS

In the year Two Thousand and Two
AN ACT INCREASING THE PENALTIES FOR SPEED LIMIT VIOLATIONS IN MARKED CONSTRUCTION ZONES.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

Section 17 of chapter 90 of the General Laws, as appearing in the 200 Official Edition, is hereby amended by inserting after the fourth sentence the following sentence: - Any person in violation of this section, while operating a motor vehicle through the parameters of a marked construction zone or construction area, at a speed which exceeds the posted limit, or at a speed that is greater than is reasonable and proper, shall be subject to a fine of 2 times the amount currently in effect for the violation issued.

LTAP Local Technical Assistance Program

(413) 545-2604 http://www.ecs.umass.edu/baystate_roads

WANTED: A SMOOTHER RIDE

In a recent survey asking motorists what they wanted in their highways, the Federal Highway Administration (FHWA) found that the way to a driver's heart is lined with smooth pavement. Road condition was cited as the public's number one criteria for satisfaction. This fact helped spawn FHWA's pavement smoothness initiative, which calls for the improvement of the national highway network's smoothness level by 2008.

Achieving a high level of smoothness during initial construction is a key measure of pavement quality. In addition to influencing driver satisfaction, pavement smoothness affects driver safety and mobility. Smoother roads also increase fuel efficiency and decrease vehicle wear. A National Cooperative Highway Research Program analysis showed that improved smoothness extends a pavement's performance life by up to 50 percent.

FHWA is working with State Highway agencies across the country to implement State smoothness programs. MassHighway has incorporated Quality Assurance requirments including a rideability specification into a number of recent construction contracts. For more information on this specification, contact your District Office. An effective smoothness program requires the following components:

* Processes that identify the best projects for maintaining and improving the pavement smoothness of the entire highway network.
* A method of specifying pavement smoothness during initial construction.
* A method of measuring pavement smoothness during initial construction.
* Tools for contractors to build smooth pavements.
* Timely maintenance and strict enforcement of smoothness specs.

One example of a State success story is the Georgia Department of Transportation, which has consistently maintained one of the smoothest highway networks in the Nation. Georgia implements an effective preventative maintenance and treatment program that corrects minor problems before they become major ones and keeps costs down. It also awards construction contracts quickly, which facilitates timely maintenance, and sets and enforces strict smoothness specifications.

As a part of its smoothness initiative, FHWA has developed specifications for measuring pavement smoothness at initial construction. These specifications were presented to the American Association of State Highway and Transportation Officials' (AASHTO) Joint Task Force on Pavements at its annual meeting in May. The Task Force approved the submission of the specifications to the AASHTO Subcommittee on Materials, with a decision on adoption expected this summer.

In addition to the specifications, FHWA will release two reports this month, *Hot Mix Asphalt Pavement Smoothness: Characteristics and Best Practices for Construction* (Publication No. FHWA-IF-02-024) and *Portland Cement Concrete Pavement Smoothness: Characterisitcs and Best Practices for Construction* (Publication No. FHWA-IF-02-025). Both reports provide concise technical information on the best achieving pavement smoothness. And to assist states in transitioning from their current pavement smoothness practices to the proposed AASHTO guidelines, FHWA has put together a *Pavement Smoothness Index Relationships* guide.

Mark Swanland, a pavement design engineer in FHWA's Office of Pavement Technology, says, "Smooth pavement makes sense from an agency and a user perspective. **It's what the public wants, and it's what they should have."**

For more information on FHWA's pavement smoothness initiative or obtaining the new pavement smoothness publications, contact Mark Swanland, 202-366-1323 (email: mark.swanland.@fhwa.dot.gov), or visit FHWA's pavement smoothness website at **www.fhwa.dot.gov/pavement/pshome.htm**

LTAP is a Bargain!

With the current budget situation, training budgets are often the first to get the ax during tough times, which is exactly the wrong thing to do! Training is a bargain, or perhaps a better word would be a necessity. Here are some myths about training:

*** Train them and they will leave.**
Well, what happens if you don't train them and they stay? An organization that develops its people becomes known; recruiting becomes easier, and therefore attracts the best people available (individuals who are self-motivated to improve).

*** It costs too much/ isn't in the budget.**
Anything that improves the value of your organization will cost something! Can you calculate the cost of ignorance, that is, the cost of a lawsuit or the cost of an injury from an employee improperly using a piece of equipment? Money is budgeted for maintenance and equipment. Shouldn't you do the same for your single greatest asset: your employees?

*** There is no return on training.**
If learning creates little or no return on the investment dollar, why do parents want their kids to attend college? The value of education cannot and should not be measured on a short-term basis. Well designed, well-run training can create magnificent returns.

According to the American Society of Training and Development, the national average cost of one hour of training is $40-50 for Professional Training and $34-40 for Technical Training. To put this in perspective, **the average cost of a LTAP training workshop is $7 for one hour of Professional, Technical, and Administrative Training.**

Reprinted with permission from NC LTAP Transportation Tracks, September 2002.

BAYSTATE ROADS, the Massachusetts LTAP, is a BARGAIN !

Of the 351 cities and towns in Massachusetts, virtually all have participated in training workshops offered by your Local Technical Assistance Program. It is rewarding to hear from attendees who are pleased with our efforts.

"Yesterday's Gravel Road workshop was very good. I got positive feedback from both my South Hadley staff and the Shutesbury contingent. You guys do a terrific job with the workshops and BRP in general."
-Meryl Mandell
South Hadley DPW

"Hands-on training at the Concrete Sidewalk workshop was well presented. I can assure you that the participants in the workshop were pleased with your knowledge of the subject matter. Thank you once again for a 'job well done'. "
-Manny Alcantara
Lynn DPW

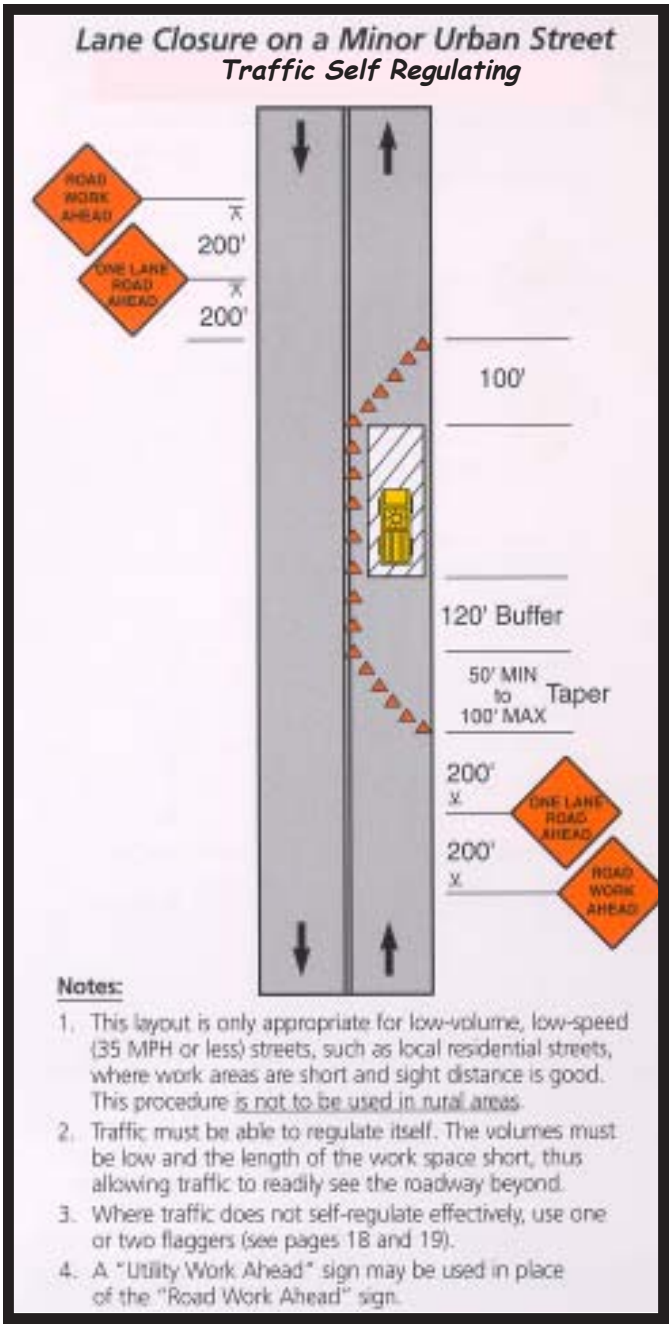
"Great Hot Mix Asphalt seminar last week. As usual this program was very informative and there was valuable sharing with peers. Thank you for all of your efforts to promote continuous education and professional service delivery."
-David Johansen
Weston DPW

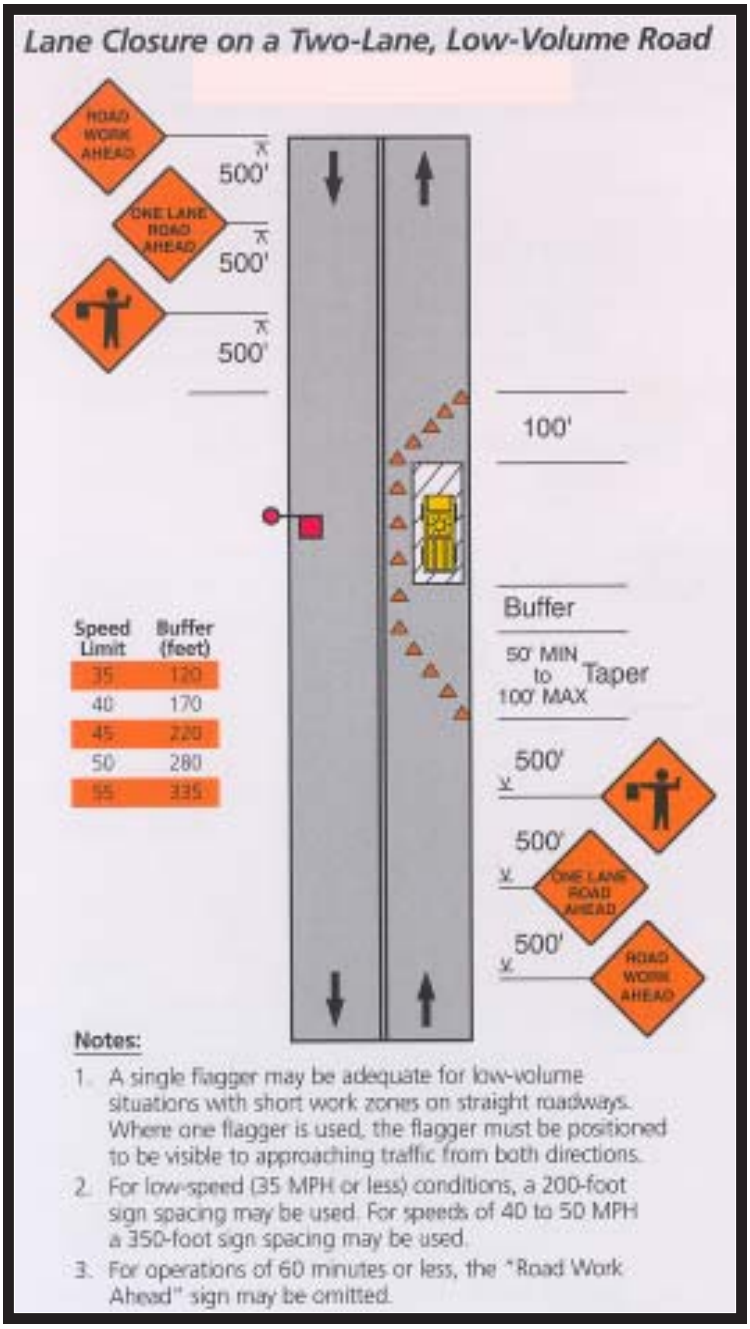
"Once again Chris you have been very helpful with your programs. Thank you very much for the materials you recently sent me. They will be most helpful. Keep up the good work!"
-Craig Young
Brockton DPW

continued from page 1

The following are two typical work zones used by municipalities. For more examples of typical work zones call and ask for a copy of our free laminated flip-book entitled Work Zone Safety Guidelines for Construction, Maintenance, and Utility Operations.

To quickly see all work zone guidelines and examples in the new Manual of Uniform Traffic Control Devices (MUTCD) access this website: www.mutcd.fhwa.dot.gov





Watch for the Baystate Roads Survey
We want to hear from you!!

Baystate Roads Program is conducting a survey to improve our services for communities and agencies in Massachusetts. Please take a few minutes to complete the form in your next issue of Mass Interchange. This program serves you and is only as strong as our response to your needs.

A Walkable Community is More than Just Sidewalks

by Lisa Harris

Well maintained sidewalks are an important component of a pedestrian friendly community--but not the only one to consider. A new brochure by the Federal Highway Administration on pedestrian safety walks the reader through a variety of other considerations.

The brochure, *A Walkable Community is More Than Just Sidewalks,* is chock-full of statistics on traffic accidents involving pedestrians. It also describes characteristics of pedestrians at different ages (see side-bar) and measures that can be taken to slow traffic and decrease accidents.

Corrective measures are presented in a matrix, showing types of accidents and suggested counter measures. The types of accidents described are specific--ranging from a child being hit going to an ice cream truck to a pedestrian being struck at or near a curb.

A strength of this brochure is its fold-up format and use of illustrations to bring the message home. They help the reader visualize real-life circumstances that can lead to pedestrian accidents.

When the brochure is unfolded, the reader can examine an extensive network of streets with different kinds of intersections and traffic calming treatments. The illustration shows common characteristics of a pedestrian friendly community:

- continuous systems/ connectivity;
- separation from traffic;
- pedestrian supportive land-use patterns;
- well-functioning facilities;
- designated space;
- security and visibility;
- linkages to a variety of land uses;
- coordination between jurisdictions;
- automobile is not the only consideration;
- appropriately located transit;
- pedestrian furnishings;
- accessibility by all users.

As you can see, the list goes way beyond sidewalks.

To obtain a free copy of this brochure, ask Baystate Roads for PED-12 by faxing a request to: 413-545-6471.

Reprinted with permission from IOWA LTAP Technology News, December 2001.

Common Pedestrian Characteristics

Age	*Characteristics*
0-4	Learning to walk, requiring constant supervision, developing peripheral vision and depth perception
5-12	Increasing independence but still requiring supervision, poor depth perception, susceptible to "dart out" / intersection dash
13-18	Sense of being invulnerable, intersection dash
19-40	Active and fully aware of environment
40-65	Slower reflexes
65+	Street crossing difficulty, poor vision and hearing, high fatalities

CHRIS CUTS DOWN A TREE

By Chris Ahmadjian, Program Manager

Early on I started hearing rumblings from the class. "When is Chris going to cut down a tree? Why do we have to cut one down and he doesn't?" It was the second day of our two-day hands-on chain saw class held at Devens on September 26-27.

Now, usually I don't participate in hands-on training. In this class, everyone cuts down a tree under the watchful eye of our instructor, Tim, and with 14 students time would be short. Also, our classes are for the students, not for me. My job is to make sure the participants are happy and learning. However, sometimes a person has to do things he wouldn't normally attempt in order to establish credibility amongst his peers and it just seemed to be one of those days.

So, I started listening closely to Tim. I quickly realized that if I was going to fell a tree, I had to have a plan and had to rehearse it well. I watched closely as one by one the 14 others cut their trees and made mistakes. One forgot to use the saw's aiming sights . The tree fell against another tree and got stuck in a dangerous position. One forgot to check the side-to-side and front-to-back lean and the tree fell the wrong way. One made the face cut less than 70 degrees and had to cut again. One made the hinge too narrow, another made it too wide. Almost all forgot to move quickly away from the tree, along their pre-established escape route, as the tree started to fall. Tim seemed to have to physically push people to break their trance as they watched the tree start to go. I made mental notes of all these potential mistakes, so that I would not repeat them when it was my turn. If I were to win any respect, my performance would have to be better than most.

One scary moment during the day was when a student forgot to check the front-to-back lean of the tree being cut. Tim didn't say anything. He just sat on a log and watched. When the student made the final cut into the back of the tree, it started to fall the wrong way and sat right down on the saw blade. Everyone watching thought the tree was coming at us and started to scatter, but it is funny how your mind can't decide which way to run. We all ran in different directions. Tim just watched because he knew that with his cutting method, the hinge left to control the tree as it fell would also stop it from falling in the wrong direction. It was reassuring to see that he remained calm. Tim sighed, chastised all of us for our forgetfulness, and with a plastic wedge and a couple of taps released the saw and felled the tree right on target.

Back to the story. . . . . .

Sure enough, at the end of the day, the class did demand that I cut a tree. To their surprise, I sprang into action. I

did, after all, have a plan. I measured the height of the tree with my outstretched arm and a stick the same length as my arm held at 90 degrees. I estimated the front-to-back and side-to-side lean. I planned my escape route. I determined the thickness of my hinge and decided to make my 70-degree facecut and then to cut the back in halves to help with wedge placement needed to overcome a slight backward lean.

It was all coming together. I remembered to start the saw on the ground and to brace it with my knee. No drop starts here. I started the saw and suddenly everyone was yelling at me. I stopped the saw and realized I wasn't wearing protective leg chaps. It was more than embarrassing. Mr. Safety had forgotten one thing in his plan and ***it was safety***.

Recovering quickly, I borrowed some chaps and started the saw again. The face cut went well and I remembered to sight down the aiming line. The plunge cut to make a hinge went well. The hinge thickness was just right. I started the back cut and immediately started to lose focus. I think I got cocky. I noticed then that Tim was yelling at me. I could see his lips moving, but the saw was screaming away so I couldn't hear a word he was saying through my hearing protection.

After a moment, I realized I was no longer following the plan. I was forgetting to cut the back in two steps. In fact, I was cutting through the entire tree while standing on the side it was leaning toward. Now, for those of you who also have no desire to have a tree fall on him, this is not a good thing to do.

I dropped off the throttle, withdrew the saw somewhat and made a partial recovery by cutting the rest of the way only halfway through. Tim then put in a wedge and I moved to the other side. I made the final cut well enough and then found myself standing in a trance-like state watching the tree start to fall. Just like everyone else, Tim had to push me before I ran down my escape route.

Upon reflection, I have decided two things. First, it sure is easier to watch other people cut trees and, second, I think we all did pretty well for "rookies."

STEP 1: Measuring the height of the tree using a right triangle. Before cutting a tree, information is taken on its height, front-to-back and side-to-side lean and its general condition.

Congratulations to the newest Roads Scholars on your fine achievement.

Baystate Roads Congratulates.

Curt MacLean
Hanover DPW

Erik Lannigan
Needham DPW

John M.Batchelder
Stoughton DPW

Thomas Poissant
Ashfield DPW

Lawrence Barrett
Stoughton DPW

Edward A. Dahill
Chesterfield DPW

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The Baystate Roads Program, which publishes *Mass Interchange* each quarter, is a Technology Transfer (T2) Center created under the Federal Highway Administration's (FHWA) Local Technical Assistance Program (LTAP). This newsletter is prepared in cooperation with MassHighway and the United States Department of Transportation Federal Highway Administration. FHWA is joined by Mass Highway, College of Engineering at the University of Massachusetts/Amherst, and local public works departments in an effort to share and apply the best in transportation technologies.

In addition to publishing *Mass Interchange*, the Baystate Roads Program facilitates information exchange by conducting workshops, providing reports and publications and videotapes on request, and offering one-to-one technical assistance on specific roadway issues. Because the program relies on input from many sources, inquiries, articles, and ideas are encouraged.

LTAP Local Technical Assistance Program

To contact the Baystate Roads Program call (413) 545-2604 or FAX 413-545-6471.

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