

UNH T2

UNH TECHNOLOGY TRANSFER CENTER provides training and services to municipal employees, public and private road associations, and citizens regarding new technologies and the management of roads and bridges.



Training Millions of Responders

by Kimberly C. Vásconez

Preparing a huge and diverse cadre of TIM professionals to work together seamlessly is no small task. Here's how FHWA and its partners are doing it.

Many first responders are killed or suffer serious injuries while addressing traffic incidents on the Nation's roadways. In fact, more than 250 public safety professionals lost their lives in the line of duty in 2012, with an estimated 13 percent of those occurring during incident response. The longer incident responders remain at the scene, the greater the risk faced by them--and the traveling public. In addition, congestion from these incidents often generates secondary crashes, further increasing safety risks, traveler delays, and motorist frustration.

Traffic incident management (TIM) is a planned and coordinated

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NASHUA'S BROAD STREET PARKWAY

by Jennifer Royce Perry, P.E.,
Director of Public Works, Exeter

After decades of discussing, planning, financing, acquiring, designing, revising, and demolishing, the construction of Nashua's Broad Street Parkway is finally about to get underway. The nearly two mile stretch of new urban roadway and no less than three bridges will provide a third crossing of the Nashua River. It

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UNH T²

The UNH Technology Transfer Center (UNH T²) provides training and services to municipal employees, public and private road associations, and citizens, regarding new technologies and the management of roads and bridges. Established at UNH in 1986 by the Federal Local Technological Assistance Program (LTAP), the center is sponsored by the Federal Highway Administration, the N.H. Department of Transportation, the University of New Hampshire, and the national LTAP and TTAP Program.



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Master Roads Scholar Luncheon

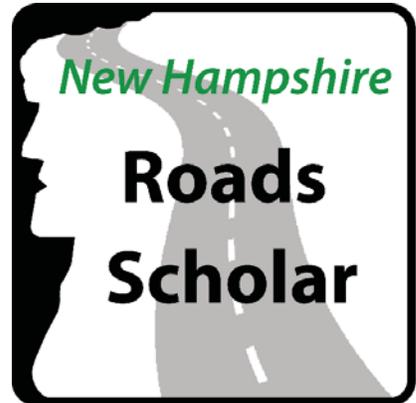
by Beth Hamilton, Training Program Manager

This December we celebrated the graduation of our newest Master Roads Scholars. During the year of 2013 we had more than 30 people achieve Master Roads Scholar. To all of you, congratulations! Your dedication to your job, continuing education, professionalism, and our program is appreciated by the citizens driving on NH roads, our staff, and the people of your community.

The Technology Transfer Center will be releasing a Roads Scholar Directory in January to highlight more than 150 new level achievements in our Roads Scholar program in 2013. We hope you continue to grow in 2014.

We'd also like to take a moment and thank all supervisors and town officials that make it possible for so many to attend our courses. Your dedication to continuing education makes a positive impact on your personnel and the efficiency of your department. Thank you!

If you have questions about what level you are at, what the levels are, or what is printed on your transcript, please do not hesitate to call Amy Begnoche at 603-862-2826.



Master Roads Scholar Recipients

New Commercial Salt Applicator Certification Could Help NH Municipalities

by Eric Williams, NH Department of Environmental Services

When the I-93 corridor towns—Derry, Londonderry, Salem, and Windham – began discussing salt reduction in 2006, municipal public works representatives cited liability concerns as the top reason that salt reduction would be difficult for private entities operating in their towns. This is a critical issue since up to 50% of the salt loading in impaired watersheds comes from private parking lots and driveways.

After four attempts in four successive legislative sessions, a new law passed in 2013 became effective this winter, offering limited liability for commercial salt applicators who choose to get certified – and for property owners who hire them.

RSA 489-C establishes the voluntary certification program through the NH Department of Environmental Services. Commercial salt applicators that successfully complete a full-day training course provided by the UNH T2 Center are eligible for the DES certification. Two hours of continuing education are required every two years for applicators to remain eligible for certification.

Commercial applicators that follow best management practices and keep records of winter maintenance activities are provided with limited liability for claims arising from snow and ice.

Certified applicators get the benefits of increased efficiency in salt use, as well as the liability protection. Municipalities get the benefit of lower salt use in their communities with a well-trained private force. The program also puts commercial applicators on the same level as the municipal and state counterparts with respect to liability protection since government salt applicators are already provided such protection in existing law, provided they have adopted a winter operations plan and are following the plan.

From a business perspective, certified commercial applicators can market themselves as certified Green SnowPros – that is as a professional company with environmental bona fides. Municipalities with a high



proportion of certified commercial applicators can likewise take advantage of the benefits of being environmentally conscious.

For a list of upcoming salt applicator training courses, see the UNH T2 web site at <http://www.t2.unh.edu/green-snowpro-training-and-certification>. Upon completion of the required training course, an application for DES certification can be found on their web site at: <http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/salt-applicator-certification.htm>.

Contact Earle Chase, DES Salt Reduction Coordinator with any questions about the new commercial salt applicator certification program at 603-271-5329 or earle.chase@des.nh.gov.



Training Millions of Responders

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multidisciplinary process to detect, respond to, and clear incidents, and restore traffic flow as safely and quickly as possible. Efficient TIM is critical to meeting the Federal Highway Administration's (FHWA) goals for improving motorist and responder safety, reducing traffic congestion, and enhancing the performance and reliability of the transportation system.

FHWA has also accelerated deployment of the TIM responder training and the development of an instructor cadre as an Every Day Counts (EDC) initiative. EDC was established in 2009 to reduce project completion time, enhance safety and efficiency, and increase the quality of roads and bridges. Specific innovations, such as this training, are selected for nationwide deployment through a State-based strategy.

The partners are deploying additional SHRP2 training products for TIM responders, including an e-learning version of the basic course and an evaluation tool to determine the course's impacts on TIM programs nationwide.

BRIDGING THE KNOWLEDGE GAP

According to the U.S. Department of Labor, there are more than 2 million public safety responders in the United States, including law enforcement, firefighters, hazardous material removal specialists, and emergency medical technicians and paramedics. This number does not include volunteer firefighters, private sector health and medical workers, military personnel, DOT safety/service patrols, highway maintenance workers, or public works personnel, who also respond to incidents and would benefit from TIM training. Despite the life-threatening risks facing these responders, estimates by the SHRP2 TIM training partners indicate that many responders do not receive training in TIM operations. Recognizing this knowledge gap, FHWA is developing and deploying a standardized, credible, and cost-effective training.

The goal is to spur the widespread adoption of best practices and promote consistent application. Potential benefits include improving travel-time reliability for trips by reducing incident clearance time, and reducing congestion, collisions, and delays caused by secondary crashes.

The TIM responder training attempts to

institutionalize good practices and develop sustainable TIM programs at the grassroots level. The course clearly defines responders' roles and responsibilities. The training also integrates language and protocols from the National Incident Management System into TIM operations, and encourages the use of unified command structures to integrate multiple disciplines into concerted responses.

Dispersing the basic training as widely as possible will enable responders to clear roads faster and safeguard themselves and motorists to the maximum extent possible. The multidisciplinary course is the only one of its kind designed to address on-scene operations and management, and to instill a shared understanding of the requirements for quicker, safer clearance.

A CURRICULUM OF CORE COMPETENCIES

The TIM responder training equips participants with a common set of core competencies. The competencies are designed to achieve a national unified goal for TIM that encourages common, multidisciplinary policies, procedures, and practices to support responder safety; safe, quick clearance; and prompt, reliable, and interoperable communications. A cadre of well-trained responders is the key to a much quicker response time to clear incidents.

The final product includes nine units, each with clearly defined objectives. Among the topics covered in the curriculum are proper handling and identification of hazardous materials, debris clearance, tow truck protocols, guidelines for working with hybrid vehicles, and cleanup.



Figure 1: The purpose of tabletop exercises like this one is to educate responders on how to apply the basic principles of traffic control and scene management for various incident scenarios

TARGETING TIM PRACTITIONERS AND BEYOND

The target audience for the training includes all TIM practitioners and those supporting response operations. This includes law enforcement, fire and rescue, transportation agencies (including safety/service patrols and maintenance workers), towing, public works, emergency medical services, notification and dispatch services, coroners, and medical examiners.

A secondary audience includes elected officials and leaders of State police agencies, local fire chiefs, transportation leaders, staff from metropolitan planning organizations and insurance companies, and executives at the State, tribal, regional, and local levels of government. By championing full-scale deployment of the lessons learned in the TIM training courses, all participants will help their communities accrue tangible benefits such as saving money, time, and lives.

FHWA continues to take steps to aid State, tribal, regional, and local jurisdictions with training as many practitioners as possible. FHWA has staff devoted specifically to TIM training deployment and has a contract in place with the Emergency Responder Safety Institute to bring the training to additional fire service facilities. FHWA also established interagency agreements with the International Association of Fire Chiefs and the International Association of Chiefs of Police to endorse and support the course among their members. In fact, the latter dedicated time during its 2013 meeting of regional senior leadership to discuss the training and the importance of supporting it.

COURSE STRUCTURE AND DELIVERY

FHWA officials recognize the difficulty in taking public safety officials off the streets for a prolonged period for training. That is why course developers produced training that is flexible and can be tailored locally.

Specifically, FHWA is deploying the TIM responder training through a twofold approach: (1) teams of TIM trainers consisting of one law enforcement expert and one fire service expert, who then conduct classroom courses in their home States; and (2) developing and deploying a Web-based course that will launch in early 2014.

The train-the-trainer classes are producing a cadre of qualified TIM trainers within each State and a common set of practices and advanced standards. The training includes interactive seminars, analysis of case



Figure 2: Training participants watch as TIM instructors demonstrate proper techniques for blocking lanes using responder vehicles, such as this fire truck.

studies, tabletop role play and scenario work, and a field practicum that will provide the future trainers with the knowledge and materials needed to conduct TIM trainings.

Participants undergoing training to become instructors receive 8 hours of classroom training and 2 hours of hand-on and outdoor activities. For the sessions they teach in their States, the newly trained trainers then may choose to deliver a 2-day intensive course, a 4-hour modified version, or several shorter, single-lesson modules.

ACCESSING THE TRAINING

In November 2012, FHWA assumed responsibility for deploying the responder training in accordance with a detailed implementation plan. According to the plan, each State will produce its own implementation plan detailing how it will conduct training sessions that will offer the greatest possible opportunity for TIM responders to take the training in a classroom setting. The implementation plan must be developed before FHWA will provide contractor support and materials to conduct train-the-trainer courses in that State. FHWA aims to conduct at least one train-the-trainer session in each State, the District of Columbia, and Puerto Rico.

FHWA officials are creating a list of trainers in each State and dates of scheduled training sessions. This information, once available, will be posted on FHWA's Web site. State DOTs also maintain training schedules for their respective States.

In addition, once launched, the e-learning session will be accessible on the FHWA Traffic Incident and Events Management Web site at http://ops.fhwa.dot.gov/eto_tim_pse and on NHI's Web site at www.nhi.fhwa.dot.gov.

OTHER TRAINING FOR TIM PROFESSIONALS

As noted earlier, the framework for this training is rooted in a national unified goal of encouraging common, multidisciplinary policies, procedures, and practices to support responder safety; safe, quick clearance; and prompt, reliable, and interoperable communications. The framework therefore consists of three tiers that target various levels of TIM professionals. It is structured for relatively easy and cost-effective integration into existing curricula for first responders and other support organizations.

The first tier targets incident responders and on-scene activities. This tier includes the SHRP2 TIM responder training and videos produced by the Emergency Responder Safety Institute for FHWA titled “Move Over,” “Move It,” and “Blocking Procedures at Roadway Incidents.” In the future, FHWA’s Traffic Incident & Events Management team will produce individual training modules for topics, such as dispatching, incident reconstruction, and enforcing TIM laws, based on identified gaps.

The second tier of training focuses on developing and enhancing TIM programs. The training targets managers responsible for planning, resourcing, and leading the TIM programs. FHWA holds workshops for mid-level TIM managers to inform them of the importance of ongoing, sustained TIM programs. The workshops use national examples of best practices to prompt discussions on topics such as performance measurement, after-action reviews, training, responder safety, quick clearance, and communications. At the end of the workshop, TIM managers produce an action plan for improving TIM programs in their jurisdictions.

Third tier training sessions consist of awareness briefings for executive-level decisionmakers. These briefings raise awareness of the national TIM program; emphasize the importance of TIM to safe and efficient traffic operations; highlight the issues, needs, and action items discussed during the mid-level workshops; and request support for continued funding for these programs.

FHWA publishes a schedule of all levels of training in its Traffic Incident & Events Management Knowledge Management System at http://ops.fhwa.dot.gov/eto_tim_pse/preparedness/tim/knowledgebase/index.htm. FHWA does not endorse courses produced by other entities but does provide a compendium of that training and course contacts. Infrequently, FHWA

officials may attend courses that are similar to the national trainings to determine if they could be a substitute for the TIM responder training. If a course meets the objectives, FHWA may designate an equivalency status to save jurisdictions time and resources.

CREATING EFFECTIVE, SUSTAINABLE PROGRAMS

As confirmed in recent TIM self-assessments, which transportation and public service agencies use to assess their programs, the TIM trainings already have helped to facilitate traffic incident recovery, resulting in streamlined, effective responses and a common platform of proven practices. FHWA’s goal is for the training to eliminate unnecessary injuries and deaths, minimize time-consuming delays, and reduce congestion-related costs to the economy.

FHWA, AASHTO, and TRB are working to make the TIM responder training a success. To demonstrate the effect the training will have on direct operations on highways, the SHRP2 team is creating an assessment tool that will measure the impact of the training on traffic operations and incident responses. The software tool uses a process that will help communities evaluate how the course has affected their TIM planning and operations. FHWA officials expect to roll out the tool in 2015.

This article originally appeared in the November/December 2013 issue of “Public Roads,” Vol. 77 - No.3

ABOUT THE AUTHOR

Kimberly C. Vásconez is team leader of traffic incident and events management in FHWA’s Office of Operations. Her team develops national policy, guidance, and tools for TIM, traffic planning for special events, incident management for transportation officials, and disaster transportation planning. Vásconez has 28 years of disaster management experience with FHWA, the U.S. Department of Homeland Security, the Federal Emergency Management Agency, and the U.S. Agency for International Development. She holds a master’s degree in public and international affairs from the University of Pittsburgh and a bachelor’s degree in journalism from Indiana University of Pennsylvania.

Nashua's Broad Street Parkway

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will wind along and cross the Nashua River and the historic Millyard. It also crosses through deposits of asbestos waste left behind when the Johns Manville Corporation offered free fill to local property owners.

The Broad Street Parkway will begin east of the Exit 6 interchange of the F. E. Everett Turnpike at the intersection of Broad Street and Blue Hill Avenue. The Parkway generally follows a route adjacent to an active railroad owned by Guilford Transportation to a point where the proposed roadway turns south and crosses the Nashua River with a new bridge. After crossing the river the Parkway passes through the Nashua Millyard and ties into existing Pine Street near the intersection with Central Street.

The Parkway was originally designed to be a 40 to 50 mile per hour, four-lane limited access roadway. A 2003 interactive public process master plan for downtown Nashua recommended significant changes to the plans, integrating the parkway into the cityscape. Their recommendations for a 25 to 30 mile per hour, two lane controlled access roadway with carefully planned intersections with connections to the under developed Millyard, have withstood years of review and critique.

When the project design got started in the late 1990's, it was managed by NHDOT. The State started the property acquisition process. In 2006, the City took over management of the project. Many engineering consulting firms have been engaged in the design of the project over the years. Nashua Public Works Director Lisa Fauteux and City Engineer Stephen

Dookran, P.E. are the project leaders for the City. The final design plans are stamped by Fay Spofford and Thorndike.

The project has been divided into three separate construction projects to make them more manageable and complete them on a tight schedule. Bids for the first contract, Broad Street Parkway North and the Baldwin Street Bridge over the railroad tracks and the Parkway were opened Sept. 4, 2013. The low bidder was R. S. Audley, Inc., of Bow, NH at \$11.0 million, which was \$2.9 million below the engineer's opinion of cost of \$14 million. In October 2013 the Fairmount Street Bridge and the River Bridge will be advertised with total costs estimated to be \$16.8 million; this phase of the project also includes 3 major retaining walls and the protection or relocation of a 54-inch sanitary sewer interceptor. The third and final phase will be advertised in December 2013 for the Parkway South area; costs are estimated at approximately \$5 million.

All the Parkway projects are expected to be substantially complete with traffic on the Parkway by December 2014. Final completion is anticipated in May 2015.

Overall project costs including property acquisition, design and construction are expected to total over \$64 million. Approximately \$30.5 million is federally funded, and up to \$37.6 can be funded locally.

This is the first in a series of articles on important current public works projects in New Hampshire



Broad Street Parkway, City of Nashua

8th Annual Ken Ward Memorial Plow Rally: A Recap

by Catherine Schoenenberger, *Stay Safe Traffic*

The 8th Annual Ken Ward Memorial Snow Plow Rally took place September 18th at the Hopkinton State Fairgrounds in Hopkinton, NH. The competition attracted over 170 municipal workers and exhibitors who enjoyed cheering on their favorite teams.

Municipal Champions 2013 are reigning Champs, Benji Knapp and Jeff Lewis from the Town of Weare. The team of Fred Bassett and Charles Cote had an impressive rookie run, however, achieving second place. There was just one point difference between the Champs and Second place!

Kanpp and Lewis then went up against the NH DOT Champs, Benjamin Gelinias and Jeremy Minery. The Municipal Champs prevailed once again and were crowned NH State Champions! This Dynamic-Duo will now will go onto compete at the New England Regional Competition in Leominster, MA on November 6, 2013 against other State Championship teams from throughout New England.

The Dana Wright Backhoe Competition awarded Benji Knapp First Place honors, while second place went to William Dourdounas from the City of Keene. Both operators came away with the same exact score, but the faster time belonged to Knapp. Congratulations to all.

New to the Rally this year was a concerted focus on educational workshops. Mark Przekurat of Renaissance Acres Tree Care went nearly all day on the importance of safety in the trees and in/around chain saws. Attendees were able to physically strap on a tree

harness and scale the pine. Primex, NH DOT-Driving Towards Zero, DOT Stormwater, and Innovative Surface Solutions also extended their knowledge to the crowd. We are looking to expand this area, so if you have ideas, please share.

Hope to see everyone back next year, Wednesday, September 17, 2014. For any further information please contact: Catherine Schoenenberger, Stay Safe Traffic Products, Inc., staysafetraffic@aol.com, 866-692-2114.



Carl Quiram, Goffstown DPW Director, congratulating Benji Knapp, Town of Weare, on his win in the Backhoe competition



Competitors at the 8th Annual Ken Ward Memorial Plow Rally

Construction Career Days: Looking Back

by Catherine Schoenenberger, Stay Safe Traffic

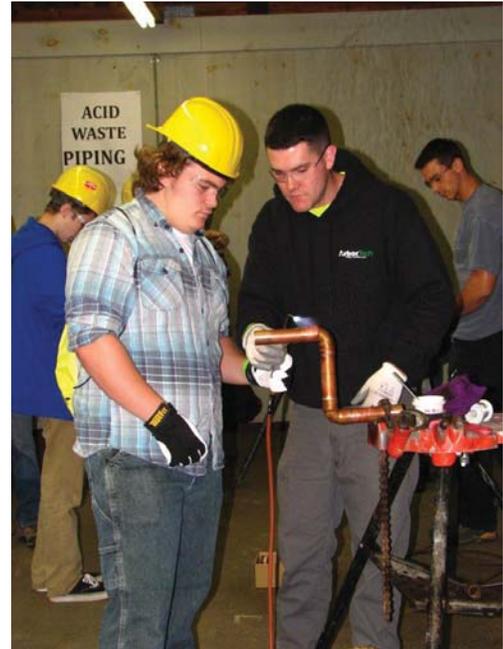
New Hampshire Construction Career Days 2013 took place at the Hopkinton State Fairgrounds September 19th and 20th. With over 900 students attending over the two days, the events were full of excitement, energy and hands-on engagement. The students came in from 35 New Hampshire high schools from all over the Granite State. Female student participation continues to increase, sporting an average this year of 15%, up from 13.5% last year



Participant at Construction Career Days

The Hands-On Exhibitor list grew to a record 58! Students were able to go from virtual welding to plasma cutting, tree climbing to tool box building, pipe fitting to bridge building, Lego creations to wiring electrical sockets, operating a plow wing to operating an excavator, working a crane to driving a paver!

NH Construction Career Days was established in 2009. Since its inception, nearly 4,000 high school students from New Hampshire have experienced this hands-on event. NHCCD is a fantastic event that exposes students to possible career paths in both the construction and transportation industries through hands-on exhibits and educational resources. Labor unions, construction and engineering companies, trade and professional organizations, and state agencies collaborate to provide students with an introduction to various aspects of construction.



Participants at Construction Career Days



Participants at Construction Career Days

Please visit NH Construction Career Days' website www.nhccd.weebly.com and be sure to like Facebook page NH Construction Career Days.

Interested in participating in the 2014 events, as a Sponsor, Volunteer, Exhibitor? Please contact Catherine Schoenenberger at 866-692-2114 or nh-ccd@hotmail.com

New Hampshire Public Works Mutual Aid

With record storms, flooding, and most recently Hurricane Irene and the October Noreaster, the need for mutual aid is ever increasing. In times of crisis, a mutual aid agreement allows neighboring communities to provide assistance in the form of labor and equipment to help each other through the disaster. Mutual aid is a FEMA-approved contract and will make the assisting municipality eligible for federal reimbursement.

Mutual Aid is available for only \$25 per year and the benefits are innumerable. For more information, visit the T² website at www.t2.unh.edu/ma or contact Beth Hamilton at 603-862-1362.



DATES

- 1/13-1/17 **TRB**, Washington, D.C.
- 3/5 **Water Matters Legislative Breakfast**, Concord, NH
- 5/4-5/7 **North American Snow Conference**, Cincinnati, OH
- 5/22 **Mountain of Demonstrations**, Sunapee, NH
- 6/11 **NH Emergency Preparedness Conference**, NH

EMPLOYMENT OPPORTUNITIES

Please see the NH Local Government Center's website for recent postings for employment opportunities in municipalities across the state.

<http://nhmunicipal.org/Resources/ClassifiedAds/Employment>

Visit the UNH T² website today!

www.t2.unh.edu

- Access to the most up-to-date calendar
- Register for workshops online
- Access to NH Road Salt Database
- See important announcements
- Access to the UNH T² Facebook page

Minimum Retroreflectivity Compliance Kit

The Technology Transfer Center is now offering one Avery Dennison Minimum Retroreflectivity Compliance Kit on loan for New Hampshire Public Works Departments.

There is no fee for the equipment loan, and municipalities may keep the retroreflectometer for up to four weeks (*additional time may be requested*).

For more information

www.t2.unh.edu/avery-dennison-minimum-retrorefelctivity-compliance-kit
t2.center@unh.edu



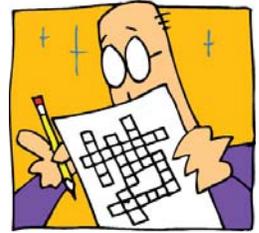
NH LTAP is on Facebook & Twitter!

Want to stay informed of our activities? Want to connect with other professionals who attend our training? Want to look at pictures from our training classes and other events? Then "like" us on Facebook or "follow" us on Twitter to stay connected! We are posting information daily on our activities, new programs, training, local news, and services.

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Crossword Puzzle



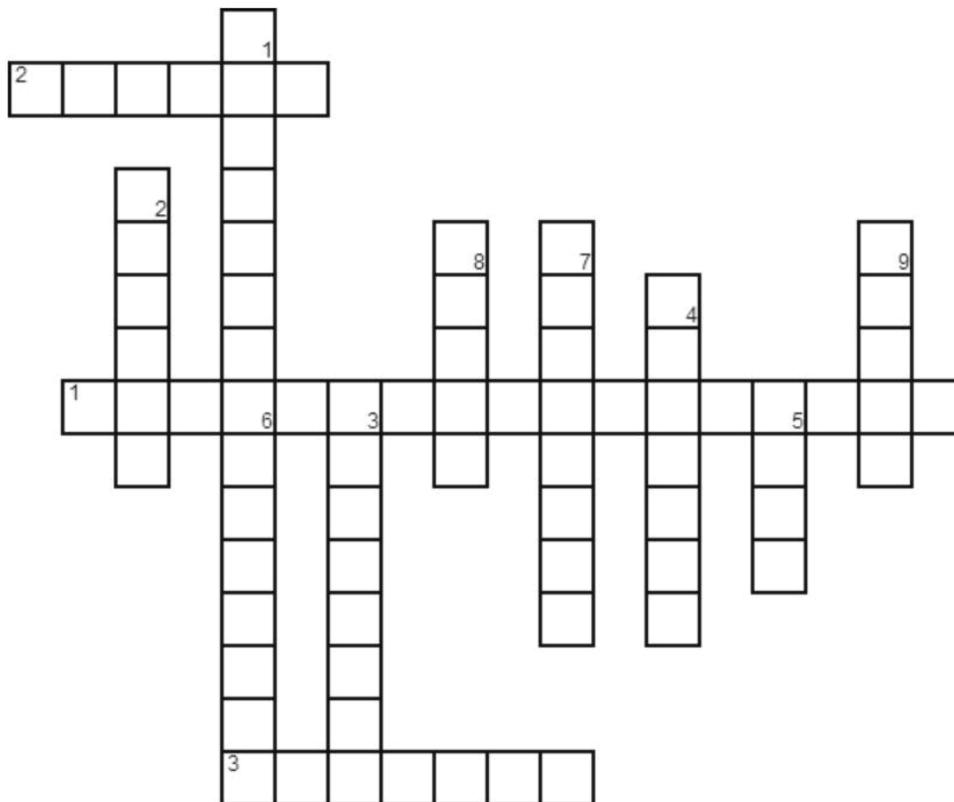
Be the first to complete this crossword and fax it
(603-862-0620) to win a FREE T² workshop!

NAME _____

AFFILIATION _____

E-MAIL _____

PHONE _____



Across

- The training program offered is _____, it is the only one of its kind.
- This tier focuses on developing and enhancing TIM programs.
- The _____ was originally designed to be a 40 to 50 mile per hour, four-lane limited access roadway.

Down

- Traffic _____ management
- A third crossing of this river was added
- The month that the Master Roads Scholar Luncheon occurred
- There are more than two _____ public safety responders.
- The number of units included in the TIM training.
- _____ exercises help show how to apply the basic principles of traffic control and scene management.
- Several of the training options available are 2-day intensive, 4-hour _____, version, or several shorter single-lesson modules.
- This tier targets incident responders and on-scene activities.
- This tier has training sessions that consist of awareness briefings for executive-level decisionmakers.



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SPRING 2014 TRAINING CALENDAR DATES TO BE ANNOUNCED IN JANUARY!

Check out our website for the most up-to-date calendar
www.t2.unh.edu/training-calendar

