

# Connecticut Technology Transfer

University of Connecticut, School of Engineering

www.t2center.uconn.edu

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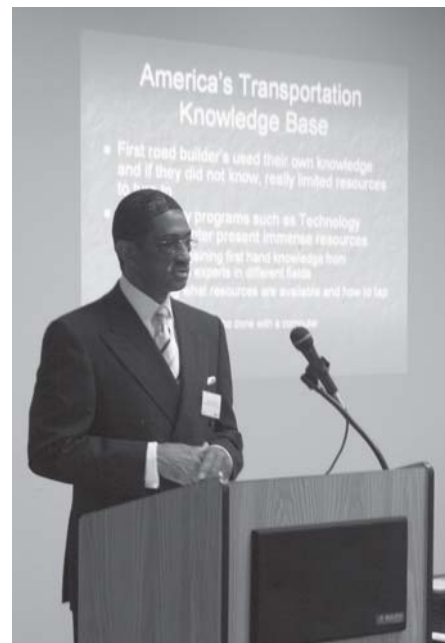
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## Congratulations Class of 2007!

The Connecticut Technology Transfer Center recognized 77 transportation professionals receiving their Connecticut Legal Traffic Authority, Connecticut Road Master and Connecticut Road Scholar program certificates on September 27<sup>th</sup>. Over 100 certificate recipients and their guests enjoyed a breakfast celebration at the University of Connecticut main campus in Storrs. The Road Master, Road Scholar and Legal Traffic Authority programs consist of a comprehensive series of workshops and roundtable discussions that provide participants with knowledge-based and skills-based training for road management and safety activities.

Mary McCarthy, Technology Transfer Center Training Specialist, publicly acknowledged each recipient as part of the ceremony. State transportation leaders congratulating the group included Albert Martin, Deputy Commissioner of the Connecticut Department of Transportation, James Mahoney, Interim Executive Program Director of the Connecticut Transportation Institute,

Donna Shea, Program Director of the Technology Transfer Center, Fred Thumm, Technology Transfer Center Advisory Committee Chair, Sue Baillargeon, ConnDOT Training Division, and Eric Hood, Town of Glastonbury/Road Master Graduate.



*Albert A. Martin, Deputy Commissioner of the CT Department of Transportation, giving opening remarks at the 2007 T2 Graduation.*

*continued on page 2*

The occasion was also used to announce the winners of the 2007 Creative Solutions Award program. Several of the winners gave presentations to the group on the details of their creative solutions. The Town of South Windsor brought their Storm Water Educational Display, it was very well received by all who attended.

### 2007 Legal Traffic Authorities

Robert Barlow  
Town of West Hartford

Douglas Fuchs  
Town of Redding

Roy Nelson  
Town of Cromwell

Anthony Salvatore  
Town of Cromwell

Richard Theriaque  
Town of Windham.



Front Row: Barlow, R.; Theriaque, R.; Fuchs, D.  
Back Row: Salvatore, A.; Reimondo, M.; Nelson, R.



*Keynote Speakers  
from the 2007  
Graduation  
Ceremony.  
Top (from l):  
Eric Hood,  
Fred Thumm,  
James Mahoney.  
Bottom (from l):  
Donna Shea,  
Mary McCarthy,  
Sue Baillargeon.*

## Connecticut Technology Transfer

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**Technology Transfer Center**

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Supported through a cooperative effort of the Connecticut Department of Transportation and the Federal Highway Administration's Local Technical Assistance Program (LTAP) to provide information on the latest transportation technology to Connecticut's state and local government officials.

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**2007 Connecticut Road Masters**

Paul Albuquerque City of Bridgeport	Anthony Castaldi CT Department of Transportation	Bernie Drabek Town of South Windsor
Eugene Bartomioli CT Department of Transportation	Roger Challinor Town of Groton	Bill Dzen Town of South Windsor
Mark Berard CT Department of Transportation	Roy Chandler Town of Woodstock	Bill Fleming Town of Groton
Steven Biekert City of Groton	Joseph Charron, Jr. CT Department of Transportation	Neil Florio CT Department of Transportation
Gregory Bouchard Town of Lisbon	Donald Dapont City of Waterbury	David Flynn Town of West Hartford
Walter Burgess Town of Ledyard	Kurt Denalsky Town of Simsbury	Thomas Fontaine Town of Groton
Kevin Campbell CT Department of Transportation	Steven Dolgoruck Formerly with CT Department of Transportation	Robert Freeman City of Hartford



*Kneeling in Front: Charron Jr., J.; Hopkins, G. First Row: Gubetta, R.; Florio, N.; Gaston, D.; Lindstrom, W.; Giglio, L.; Monticello, K.; Whitacre, J.; Mik, R.; Wells, J.; Campbell, K.; Tefft, G.; Malerba, A.; Hood, E. Second Row: Denalsky, K.; Johnson, E.; Burgess, W.; Miller, M.; Fontaine, T.; Bartomioli, E.; Labrie, A.; Hutchings, C.; Steeves, A. Third Row: Fleming, B.; Challinor, R.; Polestra, J.; Kardys, R.; Valeri, A.; McNamara, M.; Drabek, B. Fourth Row: Zatorski, D.; Chandler, R.; Bouchard, G.; Freeman, R.; Albuquerque, P.; Thomas, L.; Dapont, D. Back Row: Petruno, W.; Willis, R.; Rich, J.*



Derwin Gaston Town of Groton	Curtis Lindsey CT Department of Transportation	John Plummer Town of Brookfield
Leonard Giglio CT Department of Transportation	Wayne Lindstrom CT Department of Transportation	Joseph Polestra CT Department of Transportation
Vic Guarino CT Department of Transportation	Anthony Malerba CT Department of Transportation	Jack Rich Town of Ellington
Rich Gubetta Town of Simsbury	Mark McNamara CT Department of Transportation	Carmine Russo CT Department of Transportation
Eric Hood Town of Glastonbury	Randy Mik CT Department of Transportation	Aron Steeves CT Department of Transportation Gregory Tefft CT Department of Transportation
Gregory Hopkins CT Department of Transportation	Dennis Millard Town of Winchester	Larry Thomas Town of Groton
Corey Hutchings CT Department of Transportation	Mark Miller Town of Ledyard	Al Vaillancourt CT Department of Transportation
Eric Johnson CT Department of Transportation	Karen Monticello CT Department of Transportation	Andrew Valeri City of Bridgeport
Robert Kardys Town of Ledyard	Michael O'Hara Town of Avon	John Wells CT Department of Transportation
Arthur Labrie CT Department of Transportation	William Petruno Town of New Milford	Jane Whitacre Town of Groton
		Robert Willis Town of Ellington
		Dana Zatorski Town of Griswold



*Eric Hood, Town of Glastonbury, Road Master Graduate and recipient of a 2007 Creative Solutions Award.*

**2007 Connecticut Road Scholars**

David Anderson  
City of Bristol

Robert Boutin  
City of Bristol

Ralph DeSanti  
CT Department of Transportation

Stephen Doyon  
Town of Farmington

Jeff Gargano  
Town of Cheshire

Jerry Hollins  
Town of New Milford

Scott Howe  
Town of Tolland

Kevin Kelly  
Town of Colchester

Tiger Mann  
Town of New Canaan

Stephen Moran  
CT Department of Transportation

George Noewatne  
Town of Cheshire

Ira Norton  
City of Bristol

Paul Pronovost  
Town of Thomaston

Edwin Read  
Town of Redding

John Savino  
City of New Haven

Chris Smith  
Town of West Hartford

James Sugden  
Town of Redding

Salvatore Tassone  
Town of Colchester



*Front Row: Howe, S.; Sugden, J.; Hollins, G.; Savino, J.; DeSanti, R.  
Back Row: Kelly, K.; Tassone, S.; Smith, C.; Boutin, R.*



It is not possible to think about the history of the Connecticut Technology Transfer Center without thinking about Dr. Jack Stephens. We are all saddened by his recent passing. It is not the same here at the T2 Center without Dr. Stephens stopping by to see all of our staff. Many towns in Connecticut benefited from his wealth of knowledge about paving materials and many engineers in municipal agencies in Connecticut remember Dr. Stephens as a professor and advisor in the School of Engineering at UConn.

James Mahoney took a few moments during the recent Technology Transfer Center Graduation to share some remembrances of Dr. Stephens. We will miss him!

*James Mahoney, Interim Executive Director of CTI, welcomes the 2007 graduates and remembers Dr. Jack Stephens.*

## Technology Transfer Center Honors Third Annual “Creative Solutions Award” Winners

The Technology Transfer Center bestowed the Connecticut municipalities of Bloomfield, Glastonbury, South Windsor and Southbury with the 2007 awards in the third annual “Creative Solutions Award Program.” There was such a high quality of submissions this year an additional category of Honorable Mention was established and this honor was bestowed on the Towns of Hebron and New Milford. The winners were announced on September 27 at the Center’s annual graduation ceremony in Storrs.

The award program was created by the Technology Transfer Center to recognize and share innovations designed by local government to solve local transportation related challenges.

Bloomfield’s public works department’s **Demolition Debris Tailgate Chute** has allowed more efficient and effective removal of

Demolition Debris and Brush. As a small agency that provides services across a broad area of responsibilities, this solution helps them be able to “shift gears” quickly and effectively. The Town of South Windsor found a very creative way of meeting the public education requirements of the EPA’s Stormwater Phase II program. Their new **Public Storm Water Display** provides visuals of how the environment can be impacted by everyday activities by residents of the town. The public works department brings the display to schools, fairs, and public awareness days. The Town of Glastonbury was recognized for their comprehensive **Employee Safety Program**, including their Friday Safety Huddles and Routine Maintenance Mondays. This program has significantly reduced the number of worker’s compensation claims and sick days for the Highway Department and

created a culture of safety throughout the department.

The Town of Southbury, in an effort to improve efficiency of crews backfilling new curbing, developed a **Curb Backfill Conveyor** which was attached to the towns dump truck. The new conveyor significantly reduced the number of staff needed to restore areas behind curbs and makes the operations much less disruptive to traffic during these operations.

The Honorable Mentions were awarded for the Town of Hebron’s **Drainage Conversion Chart** to assist public works employees in determining the correct slope for pipe installation and the Town of New Milford for their new **Anti-Icing Program** which has improved their service levels, reduced vehicle operating cost and reduced salt usage.

The Technology Transfer Center at the Connecticut Transportation Institute is accepting 2008 applications from Connecticut Municipalities until September 1, 2008. Please contact Mary McCarthy, Training Specialist at 860-486-1384 or [mary@enr.uconn.edu](mailto:mary@enr.uconn.edu). For more information, visit our web site at [www.t2center.uconn.edu](http://www.t2center.uconn.edu).

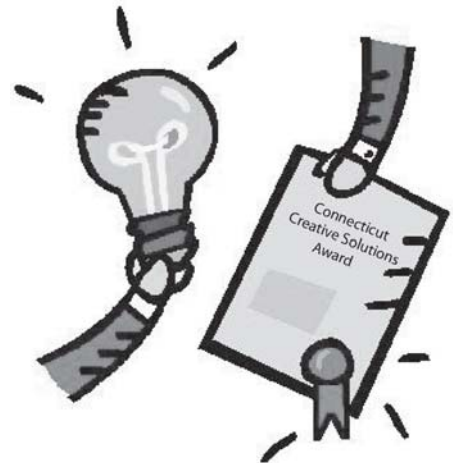


*The crew of the South Windsor Public Works Department, recipients of a 2007 Creative Solutions Award for their Storm Water Public Education Program.*





*South Windsor's very successful Storm Water Public Education Display (winner of a 2007 Creative Solutions Award).*



## Connecticut Department of Transportation Joins Vermont Agency of Transportation in Asset Management Peer Exchange

The Connecticut Department of Transportation, in cooperation with the Federal Highway Administration (Connecticut Division and Washington, DC Headquarters) and the Technology Transfer Center at UConn, participated in a Peer Exchange on Asset Management with the Vermont Agency of Transportation. The two day meeting was a great learning experience for all participants and established a vital link with Vermont as Connecticut embarks on the implementation of their Asset Management program.



*Pictured from left to right are: Ed Block (ConnDOT), Colleen Kissane (ConnDOT), Joe Kozlowski (ConnDOT), Joe Chilstrom (FHWA), Natasha Franco (ConnDOT), Donna Shea (T2 Center), Millie Hayes (FHWA), Don Larson (ConnDOT), Eloise Powell (FHWA).*

## Technology Transfer Expo 2007

The Technology Transfer Center and the Connecticut Highway Street Supervisor Association (CHSSA) teamed up to host the Technology Transfer Expo 2007 on September 19 at the University of Connecticut in Storrs. Six hundred municipal and state employees attended to visit 64 exhibitors (using over 90 booth spaces). The Technology Transfer Expo is designed to present new products, applications and equipment to local and state agencies that help meet their transportation needs. This year included a very busy demonstration and toolbox talk schedule including:

- GreenArmor Erosion Control System Demonstration by ACF Environmental
- Anti-Icing Technology Demo by Cargill
- Astoria Fiberglass Body Discussion and UTEM Aerial Device Demo by CUES
- Pavement Marking and Traffic Signing by Atlantic Broom
- Agricultural Byproducts – What Do They Bring to the Snowfighting Table by Safe Road Services
- Use of Biodiesel by Hale Hill Biofuels, and a
- Rapid Set Concrete Demonstration by CTS Cement



*Educational Demonstration by CTS Cement.*



*Sharon Okoye from the CT Safe Routes to School Program exhibiting at the T2 Expo.*



*1<sup>st</sup> Place Winner in the Expo Challenge, Michael Castonguay with CHSSA President, Chuck Holyfield.*



*2<sup>nd</sup> and 3<sup>rd</sup> Place Winners in the Expo Challenge, Ian MacGregor (left) and Mike Spielman (center).*

The expo was also an opportunity for our 2007 Creative Solution Award Winners to showcase their innovations.

The Expo competition was even more challenging this year. Last year the Town of South Windsor swept the top three champion positions, this year the Town of Bloomfield gave them a run for their money and took first place. The challenge was an opportunity for competitors to demonstrate their backhoe and sweeper operating skills, and their knowledge of Personal Protective Equipment, Flagger requirements, Work Zone Safety Guidelines and OSHA Regulations.

1<sup>st</sup> Place – Michael Castonguay - Town of Bloomfield

2<sup>nd</sup> Place – Ian MacGregor - Town of South Windsor

3<sup>rd</sup> Place – Mike Spielman - Town of South Windsor

*Special thanks to all of our participating exhibitors. For a list of the 2007 Expo exhibitors and photo highlights of the event, visit our online expo gallery at [www.t2center.uconn.edu](http://www.t2center.uconn.edu).*



## Ideas for Finding and Retaining Employees

Despite the fact that there are good jobs with excellent benefits and opportunities for advancement in government, transportation agencies are having trouble recruiting and retaining qualified personnel. Many public agencies lose to private sector competition.

In response, some government agencies are developing creative programs to make changes in the normal work environment and address work force issues. The National Highway Institute has identified different innovative practices being used by various state transportation departments. The practices are broken down into the categories of recruitment, retention, staff development, organizational change, and succession planning. A description of all programs that are identified can be found at <http://www.nhi.fhwa.dot.gov/transworkforce/innovative.asp#CAT>.

While the programs identified by NHI are at the state level, some could be modified for use by local agencies. Here are a few examples:

### Recruitment

*Colorado DOT* internship programs include students from engineering as well as planning, project monitoring, and communications. They partner with local businesses to sponsor grants and or scholarship funds for interns.

*Iowa DOT* offers free educational courses, immediate full-time employment, advancement opportunities, variety of career choices, and paid on-the-job training.

*Kentucky Transportation Cabinet* has a scholarship partnership with the University of Kentucky, offering a scholarship in return for full time employment after graduation.

*New York DOT* spends about \$30,000 a year on recruiting. The department uses resumes instead of tests for recruiting, and can hire a candidate well before graduation. They have an adopt-a-college program to give students a broad perspective on NYSDOT projects and work environment.

*North Dakota DOT* created the Department of Transportation Support Center at North Dakota State University to provide internships to junior and senior engineering students and allow them to work with design aspects of actual DOT highway projects.

### Staff Development

*Connecticut DOT* created the ConnDOT Leadership Program which uses an in-house curriculum designed to advance the critical skills and abilities needed for effective leadership within the department. Over the past five years, more than 100 employees have graduated and assumed new roles and responsibilities in the department.

### Retention

*Pennsylvania DOT* started quality circle programs 20 years ago, which includes ongoing internal surveys designed to maintain open lines of communication, improve operational efficiency, continually evaluate the organizational climate, monitor

employee morale, and reduce employee turnover. PennDOT makes all survey results available online and trains managers to interpret the survey results and conduct feedback sessions with their employees.

With rising complaints about co-worker behavior, *Maine DOT* brought in a mediation group. The result is that each division work crew identified its unique norms and behaviors and each crew wrote a "crew credo" that all crew members signed. The credo hangs in each division's crew location.

### Build A Crew Work Culture of Respect

In response to worker complaints about lack of respect on the job, the *Maine DOT* brought in a mediation consultant to help resolve conflict and determine a way to make things better. A committee of employees was created, and they developed a process that was used at different organizational levels. The process worked under the assumption that changes would only be effective if the workers themselves were part of creating the solutions. The planning process itself created an atmosphere of workplace respect.

Because micro-cultures can exist within an organization, the consultant worked to identify what the workers felt was offensive, what they feel their supervisor allows, and what they feel their organization allows. In order to get the most out of the program, open communication among all levels of employees was stressed, including a monthly meeting of crew supervisors to discuss ideas and concerns.

When meeting with the work crews, the consultants stressed how group norms "happen" or are changed in a crew, and they solicited crewmember recommendations for

changing the norms to increase workplace respect. This process had the greatest effect, as it helped an individual employee see that he or she had the power to change things within the organization. Also, participating in the process helped improve the communication among employees.

The next step was creating a partnering agreement between the different levels of supervisors so that everybody was accountable for proper behavior in the agency and that unacceptable behavior would not go unnoticed. Finally, individual crews wrote their own credos, describing the behavior they expected every member of the crew to follow. This allowed each individual to have the opportunity to point out what actions they agreed were acceptable.

An example of a crew credo from the Maine DOT is provided here.

Reprinted with permission from the *KUTC Newsletter*, a publication of the Kansas LTAP at the University of Kansas.

### Example of a Crew Credo

As members of the crew, each of us plays an important role in the safety and well-being of our families, community members, and citizens [of the State of Maine]. As workers with these responsibilities, we have the rights to:

- Trust that each crew member is doing a thorough job
- Be talked to as a crew and not as individuals regarding work plans
- Be trusted to do our jobs well
- Have input on how things are done
- Be given clear and consistent directions
- Be treated as knowledgeable adults
- Be appreciated for good work
- Know work plans at least a day in advance
- Be told why things are done a certain way

To provide these rights, and to meet our responsibilities, we promise, by signing below, to practice the following behaviors:

- To look out for each other's safety and inform each other when they have done something that is unsafe
- To tease, and to let each other know when it's gone far enough (don't do damage)
- To assist each other with each other's work load
- To read each other's mood and act accordingly
- To equally share job responsibilities
- To appreciate each other
- To come to work with a positive attitude

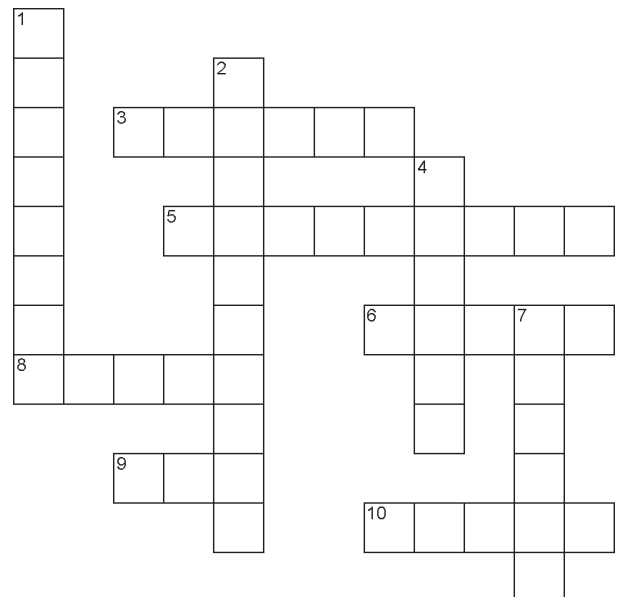
## Test Your Drainage Knowledge

### ACROSS

- 3 A cover over any culvert should be at least this many inches.
- 5 Backfill around subsurface drains needs to be \_\_\_\_\_
- 6 A \_\_\_\_\_ year storm has a 2% change of occurring each year
- 8 Maximum desirable amount of fines in a base gravel (percentage) ?
- 9 Call Before You Dig must be called how many days before work can start?
- 10 Materials with the most frost-susceptibility.

### DOWN

- 1 The structural strength of a road is not in the surface, it is in the \_\_\_\_\_
- 2 \_\_\_\_\_ is the best slope protection material
- 4 Subgrade is \_\_\_\_\_ material we build roads on.
- 7 How many tons of material are eroded before you can detect the erosion?



*Think you've got all the answers?  
Be the first to fax a correctly completed puzzle to us  
at 860-486-2399 and you'll receive a surprise gift!*

# Calendar

## October

25 Full Depth Reclamation Using Portland Cement  
(including a Roundtable Discussion)  
*Road Scholar Elective*, New Britain

30-31 Road Safety Audits for Local Agencies  
*Road Scholar Elective*, Newington

## November

6 Fleet Safety  
*Road Scholar Elective*, New Britain

14 Managing Utility Cuts – A Roundtable Discussion  
*Road Scholar Elective*, Norwalk



For those participants who attended our August 1, 2007 Older Driver Training, we thought this additional resource might be of interest to you:

**Better Options for Older Adults** – Local Planners are establishing supplemental transportation programs nationwide to help meet the needs of the growing senior population.  
Public Roads Magazine, March/April, 2007 issue.  
Link to full article: <http://www.tfhrc.gov/pubrds/07mar/03.htm>.

# Put the Brakes on Fatalities Today

*“Drive as if Your Life Depends on It”*

Did you know nearly 118 of our fellow citizens, almost all of whom are someone’s friend, family and most beloved become a statistic each day? They are dying in tragic, and what are most often preventable accidents on our nation’s roadways.

Put the Brakes on Fatalities Day was initiated by many partner organizations who are working to lower this statistic. You too can become involved to promote the reduction of fatalities. Please mark October 10 on your calendar “Put the Brakes on Fatalities Day” each year. Tell your co-workers, family members and friends to do the same.

Please join in making a special commitment to reducing fatalities and become involved by changing your driving habits and encouraging others to do the same. We must change our driving habits as evidenced by statistics that indicate about 43,000 traffic fatalities occur every year. That’s about 118 fatalities every single day—one fatality every 12 minutes.

For a toolkit of information, visit <http://www.brakesonfatalities.org/>

## Solution to Summer Puzzle



## The New England APWA Chapter Update

Don't Miss These Upcoming Events:

**Fall Meeting** – Wednesday, October 17, 2007 – DCU Center – Worcester, MA

**Fall Mechanics Training Seminar** – Thursday, October 25, 2007 – Marlboro, MA

**2007 Snow and Ice Conference and 5-State Snow Plow Rodeo** – November 7, 2007 – Manchester, NH

For more information and registration forms, visit the NEAPWA website at <http://newengland.apwa.net/events.asp>.





# Technology Transfer Center Request Form

\_\_\_\_\_ Please change my address/contact information as indicated below.

\_\_\_\_\_ Please add this person to the mailing list. \_\_\_\_\_ Please remove this person from the mailing list.

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

Title: \_\_\_\_\_

Agency/Organization: \_\_\_\_\_

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

\_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

I would like to see a future newsletter article on the topic of \_\_\_\_\_

I would like to submit a newsletter article; please call me at \_\_\_\_\_

I would like to request the following informational resource materials:

\_\_\_\_\_

\_\_\_\_\_

Please fax a copy of this form to 860-486-2399 or mail to:

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