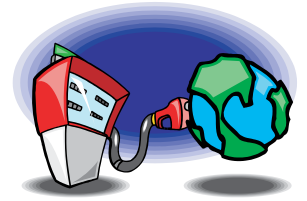


Focus on Sustainability

Facing Our Fuel Future



One Opportunity at a Time

University of Kentucky College of Engineering students recently completed the American Solar Challenge Race from Plano, Texas, to Calgary, Alberta, Canada. The team finished 11th out of 15 cars that started the race, which is nearly 2,400 miles long. Their hard work gives us confidence as we face our fuel future... and reaffirms the need for alternative fuel technologies and new attitudes.



WHAT DOES THE FUTURE HOLD FOR TRANSPORTATION?

As state and local agencies face soaring fuel prices and stagnating budgets, the landscape of transportation in Kentucky is changing. Prices of fuel and other petroleum-based products have been steadily rising in recent years, demanding not only the attention of Kentucky drivers, but also action on the part of transportation related industries.

What action will we take as citizens, public works employees, state and local government officials, engineers and planners? As more economic difficulties are being forecast for the days ahead, how will Kentucky and states across the U.S. respond?

Fuel Future, continued on page 12

Targeting High Crash Locations Saves Lives and Property

Kentucky Transportation Center Releases 2003-2007 Traffic Crash Analysis and 2007 Traffic Collision Facts for Kentucky

Safety is a top priority for public works agencies, and state and local governments in Kentucky. Arm your community with data from the 2003-2007 Traffic Crash Analysis and the 2007 Kentucky Traffic Collision Facts Report just released by the Kentucky Transportation Center (KTC). It's invaluable information that can help communities in the Commonwealth identify high-crash locations and plan critical improvements.

Oftentimes low cost traffic engineering changes are able to greatly reduce collisions and fatalities on our roads. Don't miss out on important resources available to your community including the Safety Circuit Rider Program, Work Zone Traffic Control Training, free Transportation Library materials, and more.



Use the Latest Facts & Figures to Focus Improvement Efforts

The Kentucky Transportation Center's 2003-2007 Traffic Crash Analysis and 2007 Traffic Collision Facts reports have just been released and are a critical part of public safety planning. The Traffic Crash Analysis covers data from a five-year period with the objective of determining crash statistics for Kentucky highways and how these statistics are impacted by highway types in rural and urban areas and other factors. With this information, communities will be better able to identify locations that have abnormal rates or numbers of crashes. "As we calculate rates, we look for trends and comparisons to past years' data," stated Eric R. Green, Transportation Research Engineer with the KTC Traffic Safety Program. The research covers a broad spectrum of crash data from both cities and counties, including issues such as

alcohol, occupant protection, speed, teenage drivers, pedestrians, bicycles, motorcycles, trucks and vehicle defects.

"This collection and analysis of crash data is a critical step in the process of identifying locations that have had abnormal rates or numbers of traffic crashes," remarked Green. Agencies and governments can then put these statistics to use in the high-crash location identification program.

The program helps focus efforts and pinpoint locations for further investigation. The goal is to reduce the number and severity of future traffic crashes. This information is not only used locally, but also at the state level. "Results from the analysis also provide a benchmark for the annual Kentucky Highway Safety Plan," stated Kenneth R. Agent, Transportation Research Engineer with the KTC Traffic Safety Program, who also worked on the Analysis, "the data is critical as the state identifies, plans and evaluates safety projects, as recommended by federal guidelines."

Sources of Traffic Crash Statistics

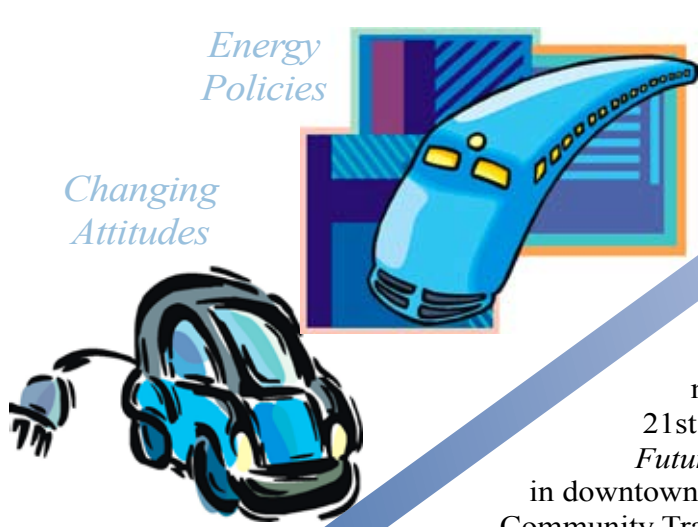
The 2003-2007 Analysis is based upon data maintained by the Kentucky State Police in the Collision Report Analysis for Safer Highways (CRASH) database. All police agencies in the state are required to send traffic crash reports to this centralized database. All crashes in the Analysis occurred on a public highway. Volume data, along with other data describing highway characteristics such as number of lanes, were obtained from a computer file containing roadway characteristics. The Collision Report was prepared in cooperation with the Kentucky State Police and the Kentucky Transportation Cabinet.

Traffic Crash Analysis, continued on page 10

Rethinking Transportation

for a Sustainable Future Conference

October 28-29,
Galt House,
Louisville



Energy
Policies

New
Technologies

Changing
Attitudes

In cooperation with the Transportation Research Board (T.R.B.) Committee on Transportation and Sustainability, the Kentucky Transportation Center is pleased to bring to you an exciting and enlightening opportunity to explore policies and technologies needed for a sustainable transportation system in the 21st Century. *Rethinking Transportation for a Sustainable Future* will be held October 28-29, 2008, at the Galt House in downtown Louisville. It is being sponsored by the Academy of Community Transportation Innovation, a partnership of the University of Kentucky and the University of Louisville in cooperation with the Kentucky Transportation Cabinet.

The conference will feature interactive sessions designed to develop and evaluate alternatives for a sustainable transportation future. An impressive list of participating organizations includes the University of Vermont Transportation Research Center, T.R.B. Committee on Transportation and Sustainability, University of Kentucky Center for Applied Energy Research, University of Louisville School of Urban and Public Affairs, Kentucky Clean Fuels Coalition, and The Kentucky Long-Term Policy Research Center.

Keynote Speakers

James Howard Kunstler is author of *The Geography of Nowhere* and *The Long Emergency*. His latest book is about the challenges posed by the coming permanent global oil crisis, climate change and other “converging catastrophes of the 21st Century.” Additionally, scheduled to speak is Anne P. Canby, President of the Surface Transportation Policy Partnership, a national advocacy coalition for transportation reform. Ms. Canby was a Deputy Assistant Secretary of the USDOT and previously headed two state DOTs.

Panelists and Presenters

Scheduled to attend and serve as panelists and presenters are Bill Reinert, Manager of Advanced Technology, Toyota; Mark Lyons, Vice President for Research, Alltech; Tom Robl, Assoc. Director UK Center for Applied Research; Lisa Aultman-Hall, Director of UVM Transportation Research Center; and Ted Grossardt, Director of the Academy for Community Transportation Innovation at the University of Kentucky.

Register Today

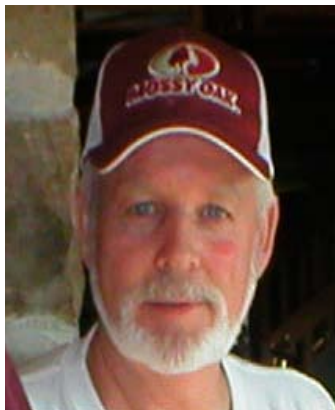
For additional information or to register, visit www.rethinkingtransportation.com or contact Conference Coordinator Carla Crossfield at ccrossfi@engr.uky.edu or 859 257- 4022. ■

Roadside Vegetation Management: The Power of Training

“Oh, it’s helpful. You can take it back with you, you know,” KDOH - District 11 Superintendent Larry Cook stands nodding

as the class prepares for break. “Like Roadside Drainage, I’ve learned a lot here already this morning. It helps you when you get back to the county. It reenergizes you to get stuff done,” Cook says with a smile “We have 16 on our crew. We can take back and use a lot of this. It has helped us save money in the District. We have three employees here today.” Superintendent Cook is working toward his Roads Scholar and Road Master designations and only lacks about five classes, he guesses. He’s here at Cumberland Falls attending a Road Master Optional Course entitled Roadside Vegetation Management. The course is being presented by Carl Wells and Doug Luscher.

Carl observes the genuine interest his students have in doing their best on the job and empowering themselves



*KDOH District 11,
Superintendent
Larry Cook*



*L-R: KDOH - District 11 Employees
Steven McWhorter, Equipment Operator II,
Superintendent Larry Cook, Phillip Spurlock,
Equipment Operator III, and Michael
Singleton, Equipment Operator II take
advantage of recent training at Cumberland
Falls State Resort Park.*

with training. “Many of the people in this class are also attending Pesticide Training in Spring and Snow & Ice Removal this time of year. In fact, we will be presenting here tomorrow on Snow & Ice. Today, though, it’s all about managing roadways.”

A lot of emphasis is being placed on roadside management nowadays. Which may come as no surprise considering there are 200,000 acres of vegetation on Kentucky’s 27,400 miles of state highway right of ways. In 2002 a survey was sent out to county and local governments finding that at least 127,000 acres on their right of way that when combined with the state for a total of 327,000 acres or 510 square miles (about the size of Kentucky’s largest county, Grayson) that has to have some manner of attention.

The Kentucky Department of Highways spends \$42 million on highway vegetation management which includes mowing, spraying, brush removal, etc., in other words, things that don’t show a long term effect.

The \$42 million represents 21% of the current budget.

This year is seeing a big decrease in mowing, maybe due to budget issues at the state level. But, why manage vegetation on the right of way? Safety. Safety is the primary concern. Managing vegetation on right of ways improve visibility for drivers, prevent soil erosion, assures continuity of utility services, promotes public health by keeping ditches in good order (so as not to pool and fester as a breeding ground for mosquitoes and other pests); and we maintain for aesthetic values.

**Roadside Vegetation,
continued on page 5**

Roadside Vegetation, continued from page 4

Roads are constructed to move people and to divert water. Proper drainage is critical to making roads last. Most of our ditches are “healed in” grass, not concrete.

Vegetation Management Goals

Vegetation management goals include the following:

- * reduce maintenance costs (i.e. pesticide spraying v. mowing)
- * reduce soil erosion and water quality problems
- * create safe environments
- * naturalize the right of way with indigenous plants

Improperly managed vegetation is a safety hazard that can lead to the following:

- * the growth impedes normal right of way activities
- * creates noxious weed growth
- * replaces desirable vegetation (such as KY 31 Fescue or crown vetch on a slope. Both prevent erosion).
- * can damage structures
- * serves as a cover for wildlife, possibly drawing them too close to roadways

The course emphasizes the need for an Integrated Roadside Vegetation Management (IRVM) approach which in essence means “your left hand is talking to your right hand.” It signifies both coordination and communication. It combines natural resource concepts (i.e. ecology = existing life, with biology = types of life) which helps determine which pesticide to use and which part of the growth cycle it is in). This can then be combined with selective management, which is site specific. For example, “Natural Regeneration Areas” are areas that don’t have to be mowed and can be self-maintained. IRVM also involves human resource concepts (i.e. education and communication, public meetings, and employee empowerment.

Vegetative Control Methods

There are essentially four different types of vegetative control methods which can be considered. They are as follows:

- * mechanical
- * chemical
- * biological (i.e. a weevil that attacks something we don’t want)

- * cultural (i.e. plant selection, turf renovation)

Goals of undesirable vegetation control include the following:

- * prevention - treat the weeds before they start
 - * suppression - i.e. Johnson Grass, which can grow as much as 4” a day. It can be sprayed; and spraying an acre is a lot cheaper than mowing that same acre
 - * eradication - which is nearly impossible

Knowing how tough it is to eradicate a plant

once it is started, we must particularly beware of invasive species.

Invasive species are plants and animals brought into an area in which they are not the natural flora or fauna. Ironically, they no longer face the same natural enemies or competitive growth that might counterbalance their growth and subsequent spread. With these roadblocks removed, the non-native species can spread at amazing rates and create unimaginable containment problems.

Roadside Vegetation, continued on page 6



*Technology Transfer Instructors
Carl Wells (top) and Doug
Luscher (bottom) teach Roadside
Vegetation Management*

NOMINATIONS BEING ACCEPTED FOR KY TRANSPORTATION HALL OF FAME

Nominate by Dec. 15th

The Kentucky Transportation Center is soliciting nominations for the Kentucky Transportation Hall of Fame Award. We would like your nominations to honor another exemplary Kentuckian, keeping in mind the following criteria:

“Kentucky Transportation Hall of Fame inductees shall be persons who by their foresight, dedication, leadership, perseverance, and integrity have significantly enhanced transportation systems in the Commonwealth. They shall be or shall have been residents of the Commonwealth.”

An individual nominated in the past, but not selected, will be reconsidered during the selection process. Please mail your nominations to:

Kentucky Transportation Center, Attn: Carla Crossfield, University of Kentucky,
176 Oliver Raymond Building, Lexington, KY 40506-0281

The Kentucky Transportation Hall of Fame award will be presented at the Kentuckians for Better Transportation Conference luncheon on January 23, 2009, in Frankfort.

NOMINATION DEADLINE: December 15, 2008

Please be as specific and detailed as possible in your comments. You may attach supporting documents, resume, etc. ■

Roadside Vegetation, continued from page 5

In fact, as is the case with kudzu found throughout Kentucky and being battled on roadways across the state, these invasives create additional problems which might even be of greater consequence than the problem they were brought in to counteract. The same can be seen when zebra mussels were introduced, by accident, into the Great Lakes. They quickly spread and colonize the surfaces of water pipes and boats. As kudzu chokes out native plant species and zebra mussels throw a kink in the natural course of our water systems, what we end up with is a greater problem than what we had originally. According to FHWA, Public Roads, March/April 2000, “Each year, approximately \$23 billion nationwide is lost to the effects of invasive plants on agriculture, industry, recreation, and the environment.” If that isn’t alarming enough, consider that it also estimates 4,600 acres of land are being daily invaded and attacked by invasive plants. In response, the U.S. Department of Transportation is at the forefront of efforts to control and, where possible prevent, invasive species from being introduced in the first place.



*Rodney Haggard,
KDOH - District 8,
Heavy Equipment
Operator III*

Whether you’re talking invasive species or regular maintenance activities involving native growth, vegetation management is a never ending job. Interestingly, vegetation management is the only activity in the public highway management program that deals with a living thing. With each passing day in each growing season, roadside vegetation management will continue to be a critical part of our highway maintenance efforts.

Whether you’re talking invasive species or regular maintenance activities involving native growth, vegetation management is a never ending job. Interestingly, vegetation management is the only activity in the public highway management program that deals with a living thing. With each passing day in each growing season, roadside vegetation management will continue to be a critical part of our highway maintenance efforts.

Rodney Haggard, HEOIII with KDOH - District 8, sums up the training this way, “Most of the training is really good. It gives you insight to other things that you don’t see every day. I especially like hands on activities.” Is the training paying off? Rodney makes this assessment, “Sometimes the courses help us save money. It gives us insights into how we could have better planned or responded.” ■

MOTORISTS AND WORKERS INCREASINGLY EXPOSED TO WORK ZONES

Work, work, work:

◆ A growing portion of capital expenditures is being spent on preserving existing roads and bridges. Between 1997 and 2002, the share of capital funds used for system preservation rose from 47.6 percent to 52.0 percent. (U.S. Department of Transportation, 2002 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance, Report to Congress. Publication No. FHWA-PL-03-004. Washington, DC, 2003.)

What it means for you and me...

- ◆ More than 11 billion vehicle miles of travel are estimated to have been through active contract work zones (i.e. roadwork performed by private contractors) during the year 2001.
- ◆ Motorists encountered an active work zone one out of every 100 miles driven on the NHS, representing over 12 billion hours of vehicle exposure to work zones during 2001.
- ◆ Motorists experienced a lane closure every 200 miles driven on the NHS in 2001, representing slightly more than 6 billion miles of vehicle travel through work zones nationally.
- ◆ Highway workers spent 246.4 million hours working on the NHS during the year 2001. (U.S. Department of Transportation, Federal Highway Administration, Characteristics of Today's Work Zones, presentation at TRB Annual Meeting by Gerald Ullman (Texas Transportation Institute) on preliminary study results. Washington, D.C., January 2004.)



BEGIN
INSTRUCTION
ZONE

Runovers/Backovers
ROADWAY SAFETY



How Can We Be Safe When Placing TCDs?

Simple precautions make placement of TCDs (Traffic Control Devices) safer.

Workers should

- Wear a Class III vest to be easily seen
- Place, relocate, or remove TCDs when traffic flow is light
- When possible, work from platform on vehicle
- Use seat, seatbelt, fall restraint, or (truckrail) . . . and a handhold when (rail) . . . must be removed
- Stay in constant communication with driver
- Use shadow vehicle to warn drivers



--Source: From the training CD, ARTBA, Laborer's, NAPA, IOUE. 2004 Roadway Work Zone Safety Conference, November 3, 2004.

Quality Training: *Highlights of Recent Programs*

The training season is in full swing with a broad range of classes being held across the state. For upcoming course dates and locations near you, see page 15 and visit us online at www.kyt2.com.

National LTAP/TTAP Conference

Training is important to our team too! Technology Transfer staff attended educational sessions at the LTAP/TTAP National Conference in Breckenridge, CO in July.



Hazardous Materials

Hazardous Materials was held June 17th in Bowling Green.



Communications II

Communications II training took place June 19th, at Jenny Wiley State Resort Park.



NEW Work Zone Traffic Control (WZTC) Employee Qualification Courses



WZTC Technician Training



WZTC Technician Training took place June 18th in Bowling Green.



WZTC Supervisor Training

WZTC Supervisor Training was held May 29th in Lexington.



Basic Work Zone & Flagger

Basic Work Zone & Flagger was held March 4th at Carter Caves State Park.



Traffic Crash Analysis, continued from page 2

Making use of the 2003-2007 Analysis and Report

For efforts to reduce crashes in Kentucky to be successful, high-crash locations must be identified. The Kentucky Transportation Center has developed a computer program which greatly simplifies the process of accurately reporting the specific location of a highway crash. Prior to this software, many crashes which occurred on state-maintained roadways did not have the necessary location information to be utilized in statewide analysis of crash statistics. This program, called MapClick, can be used to obtain county, route and milepoint, as well as GPS coordinates by simply clicking on the crash location on a map. It also includes a more comprehensive list of milepoints and route information. This program is available free to any law enforcement agency. For more information go to <http://www.ktc.uky.edu/MapClick>.

What Can be Done

The various types of crash rates calculated and included in the Traffic Crash Analysis and Collision Report can be used by communities to analyze specific factors that contribute to crash incidents. The Analysis recommends that counties and cities coordinate efforts between engineering, enforcement, education, and emergency medical services to address these factors.

In the past, a program was available to provide funds for the purchase of appropriate traffic signs to bring signing on city and county streets and roadways into compliance with the standards and guidelines included in the Manual on Uniform Traffic Control Devices (MUTCD). A large number of cities have taken advantage of this program, which was expanded to include counties. Funding for this program has not been provided in the past several years. However,

training that addresses proper signs and markings is offered to counties and cities by the Technology Transfer Program (see highlights from recent training on p. 9, and learn more at www.kyt2.com). The Analysis and Report recommend that cities and counties take advantage of this training and that they be alerted to the fact that their traffic control devices must conform to the standards and guidelines in the MUTCD.

The 2003-2007 Traffic Crash Analysis and 2007 Traffic Collision Facts Report can be viewed online in the Traffic and Safety section of www.ktc.uky.edu/reports. ■

2008 Ceremonies, continued from back cover



Wiley State Resort Park in Prestonsburg; and December 16th at the Executive West Hotel in Louisville. The program will begin at 11:30 a.m. with registration. Lunch will be served at 12 noon. The Secretary of Transportation has been invited to speak at 12:45 p.m. with the presentation of certificates to follow at 1:00 p.m.

The new recipients will join the 1,630 Roads Scholars and 1,036 Road Masters who have already completed these programs. Roads Scholars and Road Masters will receive their certificate and congratulatory gifts at the graduation.

The Roads Scholar Training Program is nine full-day courses (six required and three optional) for a total of 54 training hours. The Road Master Training Program is seven full-day courses (four required and three optional) for a total of 42 training hours. Congratulations to all of our 2008 Roads Scholar and Road Masters for their dedication to making Kentucky's roads safer. ■

KTC REPORT KTC-08-11/SPR 316-06-1F

LOW-COST SAFETY MEASURES AT SIGNALIZED INTERSECTIONS

- ♦ Objective: The objectives of this study were to: a) identify intersections with a high number of crashes involving a driver disregarding the traffic signal, b) identify types of low-cost safety measures which may be used as a countermeasure for red-light running, and c) evaluate the effectiveness of the installation of some of these countermeasures at a sample of intersections.
- ♦ The analysis of the crash data base was one of several procedures used to achieve the objectives of the study. Researchers used the data to identify signalized intersections having high numbers and rates of crashes; with an emphasis being placed on locations where driver disregard for traffic control was listed as a contributing factor.

Examples of low cost countermeasures used in the study included: double red indications, retro-reflective backplates, and adding signal heads so there is one signal head per lane. Research was conducted on specific intersections in Floyd, Franklin, Hardin, Daviess, Henderson, Hopkins, Larue, and Pike County, as well as other counties within the state.

- ♦ Conclusions: The before and after crash data show low-cost safety countermeasures reduced the number of crashes at intersections, specifically angle crashes. The low cost of most of the evaluated countermeasures, when compared to the reduction in crashes, would result in a high benefit cost ratio. Public response to the countermeasures, as reported by traffic engineers, has been positive with requests for additional installations. ■

Figure A-3. Double Red Indications (Nighttime)



Figure A-4. Retro-reflective Backplates (Nighttime)



Fuel Future, continued from page 1

We stand at the threshold of change. How will we face the fuel challenge? How can agencies rise to the occasion? In addition to innovation and new energy technologies, changing attitudes about consumption and public transit are yet another positive response to the negative news of rising fuel prices. Agencies and public works employees across Kentucky are facing volatile fuel prices, declining tax revenues and ever higher operational costs.

The following are actions that other states are proposing, and responses that Kentucky agencies could consider, to deal with high costs and reduced revenue projections for transportation:

- ◆ **Reduce consumption:** Continue to assess current practices and opportunities to reduce fuel consumption
- ◆ **Innovation:** Accelerate efforts to foster innovation and increase productivity.
- ◆ **Accurate projections:** Evaluate capital projects to ensure projections include recent price increases.
- ◆ **Reevaluate planned projects:** Reexamine major road paving projects.

An increase in fuel prices means an increase in costs for transportation projects, not only for paving, but also for other construction work. Prices for fuel and other petroleum-based products have been on the rise. Across the country material costs have risen anywhere from 10-25% for a wide gambit of items



including asphalt, concrete, diesel, gravel, and sand. This means agencies, along with citizens, are being confronted with choices, how much will we drive and how much will we construct?

Even though fossil fuels have become part of many products we use daily, transportation related usage still accounts for an estimated nearly 40% of annual fuel consumption nationwide. Electricity comes a close second at nearly 30%.

Increased fuel costs are not only making individual drivers reconsider usage, but it is also impacting agency planning for projects at the state and local level. Areas of concern include many of the following: long-term pavement conditions and bridge work, general maintenance planning and future construction work.

SUSTAINABILITY

Many communities are considering sustainability issues as they plan transportation projects.

By taking a look at best practices and seizing opportunities to recycle materials, communities throughout Kentucky have started, or are considering starting, to reclaim asphalt and crush concrete for reuse in maintenance projects. Counties can even partner with other government agencies on a regional basis to share resources and reduce costs.

The College of Engineering at the University of Kentucky is exploring the use of solar powered vehicle technology. A team of

Fuel Future, continued on page 13

Fuel Future, continued from page 12

students lead by faculty recently built and successfully completed a 4,000 km road course with their experimental solar car from Plano, Texas to Calgary, Alberta, Canada. (Students and solar vehicle pictured, page 1).

LOOKING AHEAD

Many believe we are now standing at a turning point in the energy crises, specifically as it applies to the future of transportation in our country. Current trends suggest that fuel shortages will increase and the days of remotely affordable gas are numbered.

Award-winning economic analyst Jeff Rubin, along with Benjamin Tal, of CIBC World Markets, Inc., are forecasting serious changes at hand for the transportation sector. In their article, entitled “Getting Off the Road: Adjusting to \$7 per Gallon Gas in America” (StrategEcon - June 26, 2008) they predict “Our updated oil price forecast of \$200 per barrel oil by 2010 points to Americans paying as much as \$7 per gallon for gasoline within the next two years.” They state that actual fuel prices have already risen to the point that driving behavior in America is going to dramatically change, with increased usage of public transportation, and reduced average miles driven by more than 15% by 2012. They furthermore predict a decline in vehicle registrations, signifying 10 million fewer vehicles on America’s highways by 2012.

You might question the likelihood of Americans changing their driving habits and the feasibility of increased use of public transit. However, if market trends hold, decreasing SUV sales as well as declining gasoline sales rates point to Americans driving 11 billion fewer miles this year than last in smaller vehicles. And if you think that public transit is only for America’s largest cities, think again. Over 57 million households are less than half a mile distance from a bus or train station. Communities in Kentucky are already answering the call for more public transportation opportunities. Lexington, Louisville, Northern Kentucky and Richmond, for example, have instituted public bus routes managed either by a single agency, or in partnership with other local agencies. Nationwide response to public transit has been very positive and, according to a recent CNN report ridership across the country is currently up 5.6%.

We can grimace and groan as we pull up to the pump. We can worry about how our agencies can do ever more with even less. But change is in the air, bringing with it opportunity, to innovate, to be better stewards of our resources, and to pursue new levels of sustainability in public planning ■

Fall 2008

Publication Statement

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Paul Toussaint, Director, Kentucky Transportation Center
Patsy Anderson, Director, Technology Transfer Program
Mardi C. Miller, Publications/Marketing Manager,
Technology Transfer Program



**Kentucky
LTAP Center**



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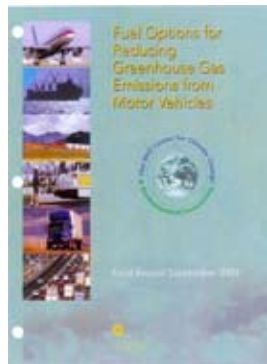
AT THE LIBRARY

Laura Wayne, Librarian
800-432-0719 or 859-257-2155
E-mail: lwayne@engr.uky.edu
Fax: 859-257-1815

Agencies are being faced with rising fuel costs, shrinking budgets, and environmental concerns. What can agencies do to address these concerns? Following are some resources that might be helpful. For additional information or resources on these or other topics, please contact us.

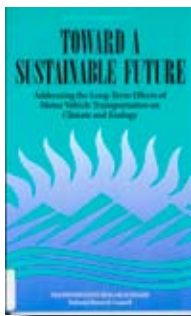
Library Resources

TP343.Y33
2004 Alternative
Transportation Fuels
and Vehicles: Energy,
Environment and
Development Issues;



DOT-VNTSC-
RSPA-03-03 Fuel
Options for Reducing
Greenhouse Gas
Emissions from Motor Vehicles;

AV-CD278 (2005) Local Government
Environmental Management
System (EMS);



TE7.S6 no.251 (1997)
Toward a Sustainable
Future: Addressing Long-
Term Effects of Motor
Vehicle Transportation on
Climate and Ecology.

Internet Resources:

N2008 Governor's Conference on the
Environment (Oct. 6-7, 2008) (KY Dept. for
Environmental Protection): <http://www.dep.ky.gov/govconference/>

American Public Transportation Association

http://www.apta.com/research/info/online/greenhouse_brochure.cfm

Clean Energy Resource Teams: <http://www.cleanenergyresourceteams.org/community-projects/project-planning/local-government>

Community Action for a Renewed Environment (CARE): <http://www.epa.gov/care/>

Energy Efficiency (KY Dept. for Energy
Development & Independence):
<http://www.energy.ky.gov/dre3/efficiency/transportation.htm>

Fuel Conservation Suggestions: <http://www.cityofsacramento.org/generalservices/fleet/fuel.cfm>

Green Government Initiative:
http://www.naco.org/Content/NavigationMenu/County_Resource_Center/New_Technical_Assistance/Green_Government_Initiative1/Green_Government_Initiative.htm

Simple Steps for Drivers: <http://www.italladdsup.gov/drivers/10steps.asp>

US Dept. of Energy: <http://www.doe.gov/>

US DOT Federal Highway Administration:
Environment: <http://www.fhwa.dot.gov/environment/index.htm>

US Environmental Protection Agency: <http://www.epa.gov/>

Well Measured: Developing Indicators for
Comprehensive and Sustainable Transport
Planning:
<http://www.vtpi.org/wellmeas.pdf>

*For a listing of all the videos in
the KTC Library, call for a free copy of
our 2005 Video Catalog or check it out
online at www.kyt2.com/library.htm. ■*

NOTE: Payment is due at time of registration for all participants, with the exception of KYTC employees.



TRAINING CALENDAR

October - December 2008

* Indicates Roads Scholar course # Indicates Road Master course **Indicates Central Standard Time Zone

October

- 1 Managing People I.....Kentucky River ADD, Hazard*
- 2 Developing Leadership Skills *FULL*Kentucky River ADD, Hazard#
- 7 Basic Work Zone Traffic Control and Flagger *FULL*.....Holiday Inn Express, Elizabethtown*
- 9 Kentucky Transportation 101 *FULL*.....Blue Licks Battlefield State Resort Park, Mt. Olivet*
- 15 Customer Service.....Four Points Sheraton, Lexington*
- 16 Traffic Management Through Signals, Signs & MarkingsExecutive West, Louisville*
- 21 Communications II *FULL*.....Cumberland Falls State Resort Park, Corbin#
- 23 Construction of Concrete Pavements.....Barren River Lake State Resort Park, Lucas***
- 28 Small Bridges *FULL*.....Ramada Inn & Convention Center, Lexington*
- 28 Work Zone Technician Training/QualificationCenter for Rural Development, Somerset
- 29 Work Zone Supervisor Training/QualificationCenter for Rural Development, Somerset
- 29 Pesticide Cat 6, 3, 18 Continuing Education Training.....Kentucky Dam Village State Resort Park**
- 30 Developing Leadership SkillsFour Points Sheraton, Lexington#
- 29 Pesticide Cat 6, 3, 18 Continuing Education Training.....Kentucky Dam Village State Resort Park**

November

- 5 KEPSC Introductory Training.....Hilton Garden Inn, Bowling Green**
- 5 Pesticide Cat 6, 3, 18 Continuing Education Training.....Lake Barkley State Resort Park**
- 6 KEPSC Inspector Qualification Training & Testing.....Hilton Garden Inn, Bowling Green**
- 6 Managing People II.....Natural Bridge State Resort Park, Slade*
- 6 Pesticide Cat 6, 3, 18 Continuing Education Training.....Lake Barkley State Resort Park**
- 12 Pesticide Cat 6, 3, 18 Continuing Education Training.....Ramada Inn & Convention Center, Lexington
- 12 Work Zone Traffic Control Train the Trainer *FULL*Four Points Sheraton, Lexington
- 13 Pesticide Cat 6, 3, 18 Continuing Education Training.....Receptions, Inc., Erlanger
- 17 Pesticide Cat 6, 3, 18 Continuing Education Training.....Jenny Wiley State Resort Park
- 18 Work Zone Traffic Control TechnicianReceptions, Inc. South, Erlanger
- 19 Work Zone Traffic Control SupervisorReceptions, Inc. South, Erlanger
- 20 Pesticide Cat 6, 3, 18 Continuing Education Training.....Natural Bridge State Resort Park

December

- 3 Pesticide Cat 6, 3, 18 Continuing Education Training.....Rough River State Resort Park**
- 4 Pesticide Cat 6, 3, 18 Continuing Education Training.....Rough River State Resort Park**
- 10 Pesticide Cat 6, 3, 18 Continuing Education Training.....Barren River State Resort Park **
- 11 Pesticide Cat 6, 3, 18 Continuing Education Training.....Center for Rural Development, Somerset
- 17 Pesticide Cat 6, 3, 18 Continuing Education Training.....Baymont Inn & Suites, Elizabethtown
- 18 Pesticide Cat 6, 3, 18 Continuing Education Training.....Baymont Inn & Suites, Elizabethtown
- 18 Work Zone Traffic Control TechnicianCenter for Rural Development, Somerset
- 19 Work Zone Traffic Control SupervisorCenter for Rural Development, Somerset

To register for a class contact Nicole Worthy, nworthy@engr.uky.edu at 1-800-432-0719 or 859-257-7364.



District 6 graduates pose at ceremonies held in Erlanger last year.

2008 Ceremonies to Honor Roads Scholars and Road Masters

Excitement is in the air as the Technology Transfer Program proudly announces upcoming graduation ceremonies to honor our 2008 Roads Scholars and Road Masters. We appreciate this year's students for their outstanding effort and commitment to quality roads in Kentucky.

We will be hosting the 2008 Roads Scholar and Road Master Graduations on the following dates in December: December 9th in the Bowling Green area (location T.B.A., CST); December 11th at Jenny

2008 Ceremonies, continued on page 10

A Reminder Regarding Training Registration Fees

In order to continue providing quality training to all interested participants, please note that we must strictly enforce payment of courses at time of registration. Thank you for your cooperation.

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Kentucky Transportation Center
 College of Engineering
 176 Raymond Building
 University of Kentucky
 Lexington, Kentucky 40506-0281

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