

PAVINGtheWAY

A PUBLICATION OF THE PLANTMIX ASPHALT INDUSTRY OF KENTUCKY AND THE KENTUCKY ASPHALT PAVEMENT ALLIANCE

Long Term Repair Costs by Dean Blake, Deputy Director

Highway officials throughout the country are faced with ever-present problems related to keeping their state's roadways in good repair. Mile after mile of parkways and Interstate highways are deteriorating rapidly, leaving rough riding conditions for the driving public.

The greatest challenge to keeping the roads maintained is centered on the expensive task of repairing those projects originally built with concrete. Increasingly, states are faced with the task of replacing worn concrete pavements with materials that can give the motoring public what it wants – a smooth ride. In order to meet that request, highway departments are turning to asphalt.

Anyone who travels on the roads in our Commonwealth understands that Kentucky is not immune to the problem of deteriorating pavements. Repair work is currently underway on several of our major highways. By contrast, repair of roads originally built with asphalt is much simpler and considerably less expensive.

A well designed asphalt pavement will require only an infrequent resurfacing that consists of a one or two inch "mill and fill." This restores the road to the original smoothness that is a hallmark of hot mix asphalt. Plus, with modern techniques of asphalt recycling, the product can be used for the greatest benefit, but at an even lower cost to taxpayers.

Recycling involves removing one or two inches of existing surface layers, mixing this layer with a percentage of new stone and asphalt, and then placing the recycled mix back onto the pavement. Substantial and obvious savings accrue by virtue of reducing the need to purchase new paving material.

There are an endless number of reasons why the majority of pavement specifiers select asphalt as their pavement of choice. The ease and economy of repairing again asphalt pavements is one of the most prolific of that list. And the resulting smooth ride is more than a bonus – it's expected.



The H.G. Mays Corporation paves US 421 between Frankfort and Lexington.

Good Roads Are Key

Kentuckians – taxpayers – have invested billions of dollars in our state highway system. Many people in the state, whether in the paving industry, the legislature or other private business sectors, understand that there is a significant tie between good roads and economic growth, and therefore the future, of the Commonwealth. That investment must be protected.

Maintaining the existing highway network is essential. Making important improvements to the system is another critical element that will foster development of new and expanded business opportunities which, in turn, will provide more jobs for our citizens.

A recent report from Kentuckians For Better Transportation said that the state's road fund is not keeping pace with inflation. The report cites Bureau of Labor statistics that indicate highway construction costs rose by 34.5 percent since the year 2001. On the other hand, road fund growth was only 0.6 percent. We applaud the efforts of the Kentucky Transportation Cabinet for awarding a significant amount of highway construction work in 2005 but there is still reason for concern.

This situation is a problem that requires attention and action. Leaders should understand the terrible impact that a faltering highway program could have on future economic growth.

We need to pursue solutions that will help Kentucky strengthen its competitive position in the battle with other states for business growth. A good road program is one of the strongest weapons in this fight.

THIS ISSUE:

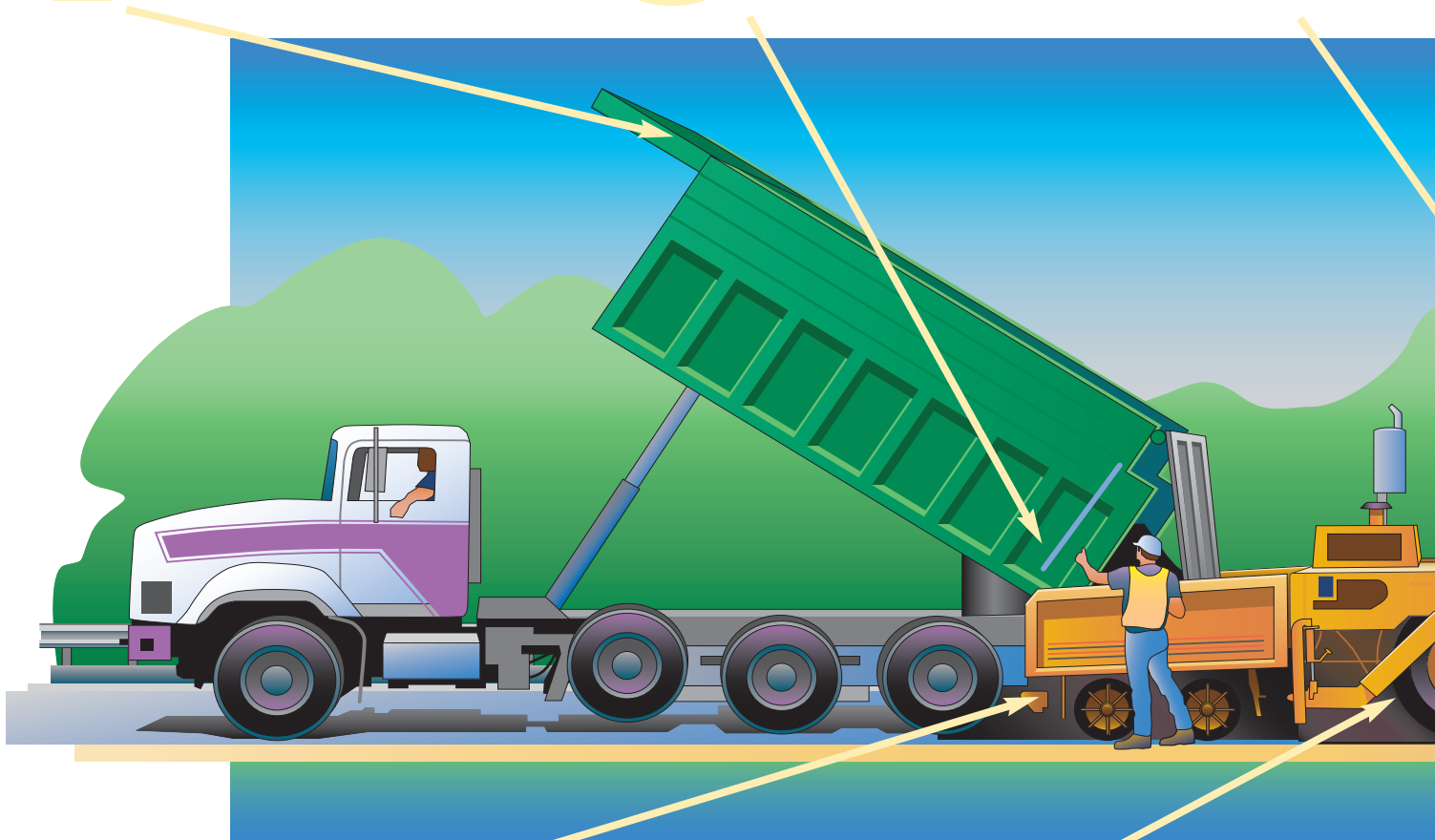
Good Roads Are Key	1
The Asphalt Paving Train	2-3
America On The Move	4

Did You Know? The Asphalt Paving Train

1. Hot Mix Asphalt is manufactured in a plant, discharged into the dump truck, and transported to the project location. The mixture is typically heated to a temperature between 275 and 350 degrees Fahrenheit.

3. The truck gate is released, and the hot mix asphalt is discharged from the truck into the paver hopper. To avoid segregation of the mixture, the material should be allowed to "flood" the hopper and not "dribble" out of the truck.

5. The paver operator directs the truck when and how to dump the material from his truck bed.



2. The truck driver backs up just short of the paver – the driver should be careful not to bump the paver. Once the paver makes contact with the truck, the driver raises the bed. The truck driver applies the brakes gently, and the tractor unit on the paver pushes the truck forward.

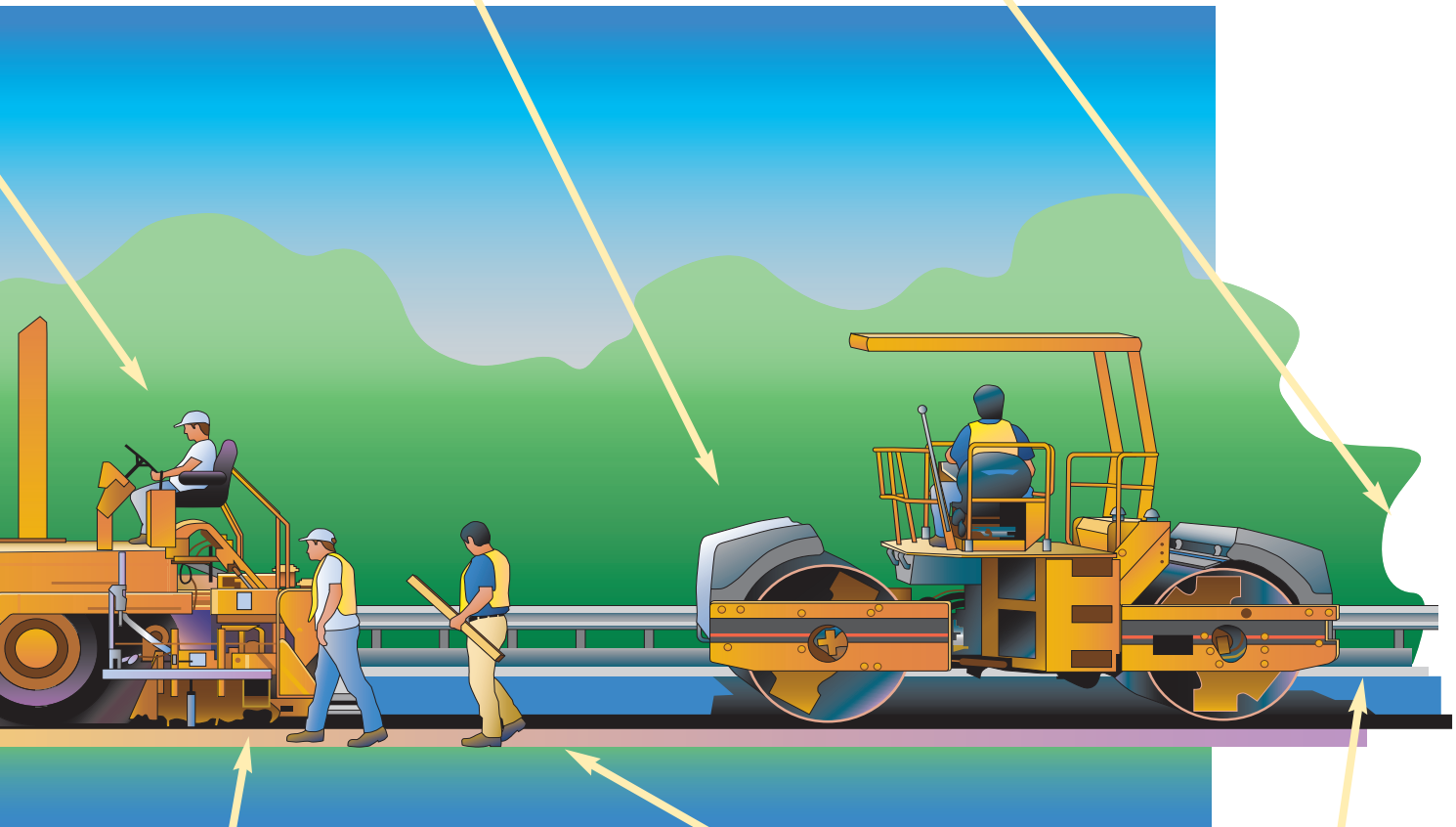
4. The hot mix asphalt material flows from the hopper along the slat conveyors to the augers and eventually to the screed at the rear of the paver.

6. The free-floating screed compacts the material to create a smooth surface and provides initial compaction.

Operator uses hand signals to check driver's location and much to raise and lower

8. The first roller is called the "breakdown roller" and provides the primary compaction of the mixture by applying weight and vibration to the mat.

10. Behind the rolling operation, quality control technicians from the contractor will typically perform density testing or obtain core samples from the roadway. Asphalt pavements are typically ready for traffic once the mixture has cooled below 150 degrees - usually in a few short hours.



6. The paver unit strikes off a smooth mat and compacts the mixture.

7. Paving crew members monitor the mixture for temperature and thickness and perform raking when necessary. Thin resurfacing may be accomplished in one pass, but thicker sections (for rehabilitation or new construction) may require multiple passes of the paver.

9. Most contractors will have two or three rollers on a project. The second roller is called the "intermediate roller" and provides additional compaction to the mixture. The final roller is called the "finish roller," and its purpose is to remove any remaining roller marks and provide smoothness to the pavement.

See *America On the Move* – Before it Passes you by

The Smithsonian Institute is offering a new exhibit that chronicles the role of transportation in American history. The exhibit starts with early American travel and follows growth and trends in the industry from horse and carriage to the revolutionary role of railroads to modern day road and bridge technology.

The exhibit features photos and stories of changing cities, developing suburbs and budding regional, national and international economic structures, not to mention the changes transportation has had on the culture of commuters.

The Web site offers myriad educational resources, games, timelines and other narratives and graphics. Visit the site for a preview at <http://www.americanhistory.si.edu/onthemove/exhibition/>.

The site also offers information about visiting the museum if you are lucky enough to utilize our national transportation system to get there.

This exhibit was sponsored in part by NAPA, Kentucky's SAPA (State Asphalt Paving Association) and PAIKY members.

Kentucky Events:

Kentuckians for Better Transportation

January 25-27, 2006
Frankfort, KY
Contact: Jack Fish
Phone: 502.491.5600

Basics of Hot Mix Asphalt

March 23, 2006
Louisville, KY
Contact: Martha Horseman
Phone: 800.432.0719



February 6-8, 2006
Downtown Marriott
Louisville Kentucky
Visit www.paiky.org for details
Phone: 502-223-3415

PLANTMIX ASPHALT INDUSTRY OF KENTUCKY

P.O. Box 286
119 W. Broadway, Depot Place
Frankfort, KY 40602

PRESORT STD
U.S. POSTAGE
PAID
LEXINGTON, KY
PERMIT NO. 01

Tel (502) 223-3415
Fax (502) 223-2370
e-mail: info@paiky.org
www.paiky.org

Serving Kentucky Since 1938