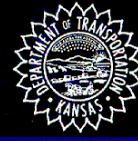


**Highway Work Zone Safety  
Driver Education Resource Curriculum**



Produced by  
**The Kansas Department of Transportation**

In cooperation with  
**The Kansas State Board of Education**

# Highway Work Zone Safety Lesson

## *Driver Education Resource Curriculum*

### Objectives

1. To help save lives and reduce personal injuries and property destruction by educating motorists about the importance of driving safely through highway work zones.
2. To train students to associate the color orange with highway work zones and to practice safe and cautious driving procedures.

### Contents

- ◆ Lesson plan
- ◆ Introductory information
- ◆ Classroom activities
- ◆ Teacher Reference Section
- ◆ Video (with graphics at end)



# Background Information

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Vehicular accidents and fatalities are more likely to occur in highway construction and maintenance work areas than on any other section of the road. Normal conditions do not exist around work zones. Things can be unpredictable. Drivers cannot count on paved shoulders and road markings that normally are in place.

In 1996, there were more than 2,300 work zone crashes in Kansas. A total of 18 people were killed and 1,057 were reported injured. In 1995, there were more than 2,100 work zone crashes. Twenty-three people lost their lives and 986 people were reported unjured. A Kansas Department of Transportation (KDOT) employee was among those who were killed.

In July 1993, KDOT joined a nationwide work zone safety public awareness campaign called "Give 'Em A Brake." It's designed to make motorists more aware of the need to slow down and pay attention in work zones.

KDOT developed this curriculum module for driver education programs in cooperation with the Kansas State Board of Education (KSBE) in hopes of targeting beginning drivers before they've had a chance to develop bad driving habits. A similar joint venture was undertaken with much success in Virginia and served as a model for this program.

The module includes a workbook with lesson plans, introductory information, classroom activities, a reference section for teachers and a short video featuring public service announcements used by KDOT to promote work zone safety. At the end of the video is a series of graphics for use with the lesson plans. In addition, "Give 'Em A Brake" promotional key chains will be available to each student as a lasting reminder of the importance of work zone safety.

For additional information on the "Give 'Em A Brake" work zone safety program, please contact:

## **Kansas Department of Transportation**

*Office of Public & Employee Information*

915 Harrison - #754

Topeka, Kansas 66612-1568

**Phone/TTY: (913) 296-3585**

**Note:** This information is available in alternative accessible formats. To obtain an alternative format, please contact the office listed above.



# Narrative for Graphics

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## Graphic 1: You are Entering a Work Zone

A highway work zone is an area where improvements or maintenance work is underway. It may represent new construction, repairs, resurfacing, redesigning, landscaping, mowing and litter removal.

Roadwork is a fact of life. If the Department of Transportation forgoes highway improvements, then the entire road system becomes genuinely unsafe. Bridge cracks, potholes and road deterioration can be lethal dangers.

As the nation's highway system ages, more and more maintenance work will be necessary. That means more work zones on highways currently in use by motorists and more chances for crashes and fatalities.

## Graphic 2: Orange Signals a Change in Road Conditions

*Remember: Common Sense, Caution, Concentration*

The color orange is used by every state and locality as a signal to motorists of ongoing highway work. When you see orange, remember to use common sense, caution and concentration as you drive through the work areas.

You may have seen the slogan "Give 'Em A Brake" – it's been selected by the Kansas Department of Transportation and by at least 35 other states as a reminder to motorists to slow down in highway work zones.

You must expect that work zones will be a fact of life. Safe construction is difficult and sometimes requires great lengths of time.

## Graphic 3: Drivers' Perspectives

*Often drivers view work zone areas only as meaningless and bothersome obstacles that slow traffic...*

*Examples of some drivers' attitudes:*

- ◆ "What are they doing now?"
- ◆ "I'm late. Here's another time delay."
- ◆ "Say, that worker is really cute."
- ◆ "For three months they've been tying up this road."
- ◆ "Another project – another waste of my tax money."
- ◆ "Oh look. Three people standing around and not a one of them working."
- ◆ "Why can't they work on this road after rush hour?"
- ◆ "Whoa! This is confusing. Where am I suppose to go?"

## Graphic 4: Workers' Perspectives

*...but to workers, motorists speeding in a work zone represent a real moment-by-moment threat to their lives.*

*Examples of workers' perspectives:*

- "I can't do my job and keep a close watch out for poor drivers. I've got to bring this project in on time."
- "Hey, buddy. How would you like your desk here on the side of the road with a one-ton vehicle whipping by your elbow every 10 seconds?"
- "People are always in a hurry, but one careless mistake, and they could be dead."
- "It's not the most glamorous job, but if we didn't improve the state's roads, traffic congestion would get unbearable and driving would be hazardous."
- "Drivers think flaggers are just standing around, but we're like air traffic controllers – for cars and machinery."

## Graphic 5: Types of Work Zones

There are two types of work zones – stationary and mobile. Stationary work zones, with easily definable boundaries, can include highway widening projects, bridge maintenance work or surveying for future highway improvements.

But, when we think of work zones, we don't typically think about those that are mobile. Mobile work areas are those in which maintenance vehicles are being operated at a slow speed, for work such as mowing grass, picking up litter, plowing snow, striping pavement, etc. Since these vehicles move at a slower speed than most other traffic, and since your vision may be restricted, extreme caution should be observed.

## Graphic 6: Signs

*Some of the signs you should expect to see in a work zone are:*

Lane Ends, Merge Left  
Detour 1000 Feet  
Road Narrows  
One Lane Bridge  
Road Machinery Ahead  
End Roadwork

## Graphic 7: Typical Work Zone

The typical work zone has several warning devices located before the work zone begins, in the work zone and at the end of the work zone to let you know how to proceed. This graphic shows warning devices such as signs, cones, barrels and flaggers.

## Graphic 8: Tips for Driving Through Work Zones

- ◆ Remember, orange signs signal work zones.
- ◆ Proceed with extreme caution.
- ◆ Drive at the posted speed.
- ◆ Watch out for workers.
- ◆ Don't change lanes or pass in work zones.

## Summary

- ◆ Overall theme: Keep an eye out for highway workers and "Give 'Em A Brake."
- ◆ The color orange denotes a highway work zone. Seeing this color should elicit a cautious driving attitude from the motorist.
- ◆ Don't depend on highway workers to see you coming. After working on the road day in and day out, workers often become oblivious to the traffic around them. They're concentrating more on their work than on the traffic.
- ◆ Use common sense and be especially alert when driving through a work area.



# Suggested Activities

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**Note to teacher:** For a one-class-period format, the instructor will need to choose several of these activities based on class size and the individual learning styles of the students. Some activities will require duplication of materials.

## Activity 1

### Sketching and Coloring Different Construction Warning Signs

Students will sketch and color at least five different construction warning signs and indicate the location where used.

◆ *See Teacher Reference Section for sample signs. Graphic 6 also is included in the Resource Curriculum.*

## Activity 2

### Brainstorming: Work Zone Offenses

*(Could be done individually, with small groups of four to six students, or with the entire class.)*

Give students the following situation to complete in approximately three minutes.

#### Teacher reads:

“You have spent the past summer as a flagger for a highway construction crew. Most of the drivers you observed were careful and considerate. However, you also saw some behaviors that made your job unpleasant and/or dangerous. List as many of these work zone offenses as you can remember.”

#### Teacher concludes:

“Work zone offenses do carry penalties. As an example, the 1994 Kansas Legislature authorized legislation which doubles all fines assessed for certain violations in construction and maintenance work zones. As a result of this new law, for example, drivers cited for exceeding the posted speed limit by 10 miles per hour in an active work zone will be fined \$20 – twice the normal fine – plus a minimum of \$42 in court fees.”

◆ *See Teacher Reference Section for sample list of work zone offenses.*

## Activity 3

### **“Reporter” Group Activity**

*(It is strongly recommended that teachers incorporate this activity into the Work Zone Safety lesson plan.)*

Divide students into groups of four to six.

All students in a group will receive a copy of the same article. Each group will have a different article. (The teacher needs to provide four to six copies of each separate article for as many groups as needed. The selection of articles appears in the Teacher Reference Section.)

Instructions to groups: “Your group will have five minutes to read and discuss your article. Make sure everyone in the group understands the main message and any important details of the article. Decide how to accomplish this. Should all members read silently? Should each member read a portion aloud to the entire group? Should you take notes? Your group decides. When time is called, one member of each group will be selected at random to speak for the group. This person should stand and summarize the main point(s) of the article for the class without looking at the article.”

(Suggested enhancement: Have markers and a large sheet of paper available for each group. One other group member jots down the “reporter’s” summary and posts it in the classroom. The main points of all the articles can then be reviewed.)

◆ *See Teacher Reference Section for selection of articles.*

## Activity 4

### **“Win, Lose or Draw”**

*(Students are likely familiar with this game format.)*

Divide the class into two teams. One student from each side selects a slip of paper with one of the words or phrases from the vocabulary list. Each student has 30 to 60 seconds (instructor decides) to sketch that word, without using letters or numbers, as members of his/her team try to guess the word. If someone on a team correctly guesses the word before time is called, the team receives one point. (Note: The instructor may want to limit this game by choosing certain words from the list. It is wise to have one or two additional words to use as tie breakers.)

◆ *See Teacher Reference Section for the vocabulary list.*

# Teacher Reference Section



# Activity 1

## Sample Construction Warning Signs



## Activity 2

### Brainstorming: Work Zone Offenses

#### *Sample List*

- ◆ **Speeding**
- ◆ **Throwing object from a moving vehicle**
- ◆ **Honking horn**
- ◆ **Stealing cones/signs**
- ◆ **Reckless driving**
- ◆ **Rearranging cones**
- ◆ **Running over cones**
- ◆ **Improper passing/lane changing**
- ◆ **Inattention**
- ◆ **Tailgating**

# Activity 3

## Reporter – Group Activity

### ◆ Article 1

*Source: KDOT News Release – May 1997*

## “Give ‘Em A Brake” Campaign Renewed

The summer of 1997 marks the end of the eight-year Comprehensive Highway Program in Kansas. Even though this large public works program is drawing to a close, drivers in Kansas will still see orange barrels on many highways, signaling that road work is up ahead. Behind those barrels are workers who risk their lives in work zones each day, so that Kansans and visitors to the state can drive on a high-quality highway system.

In May, Gov. Bill Graves and Department of Transportation Secretary E. Dean Carlson announced the continuation of the “Give ‘Em A Brake” program – a public awareness campaign designed to make motorists understand the need to drive safely in and around work zones.

“The ‘Give ‘Em A Brake’ campaign seeks to protect highway workers and motorists alike. It is critical that drivers heed the message and avoid tragedy in our construction and maintenance work zones,” said Gov. Graves.

In 1996, KDOT accident data shows that 18 people were killed in work zone accidents in Kansas. In 1992, with no coordinated safety campaign, there were 19 deaths in work zone-related accidents.

“Last year, there were more than 650 work zones on Kansas highways,” said Secretary Carlson. “What impresses

me is that despite so many more work zones now compared to the early 1990s, the fatality numbers are down. I think the ‘Give ‘Em A Brake’ campaign can take some credit for that.” In 1992, there were approximately 450 work zones on Kansas highways.

Throughout the summer, KDOT airs public service announcements on radio and television stations in Kansas. In addition, the Department will continue to display the “Give ‘Em A Brake” logo on signs in many work areas and at state entrances. “Give ‘Em A Brake” is a slogan used nationwide to increase awareness of the dangers highway workers face during construction and maintenance seasons.

KDOT maintains almost 10,000 miles of roads and about 4,700 bridges throughout the state. The Department regularly employs about 2,000 highway workers and hundreds of contractors’ employees. This construction season, KDOT and its contractors will be involved with more than 600 highway projects. The campaign is funded by federal grants, highway construction funds and donations from local contractors’ organizations.

The following page breaks down work zone accident data for the years 1992 through 1996.

# Construction Zone Accidents

## *State of Kansas*

(all roads)

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	<u>1996</u>		
	<u>RURAL</u>	<u>URBAN</u>	<u>TOTAL</u>
People Killed	14	4	18
People Injured	394	663	1,057
Fatal Acc.	11	4	15
Injury Acc.	245	458	703
P.D.O* Acc.	564	1,070	1,634

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	<u>1995</u>		
	<u>RURAL</u>	<u>URBAN</u>	<u>TOTAL</u>
People Killed	20	3	23
People Injured	308	678	986
Fatal Acc.	15	3	18
Injury Acc.	195	469	664
P.D.O* Acc.	415	1,050	1,465

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	<u>1994</u>		
	<u>RURAL</u>	<u>URBAN</u>	<u>TOTAL</u>
People Killed	4	1	5
People Injured	254	603	857
Fatal Acc.	4	1	5
Injury Acc.	163	394	557
P.D.O* Acc.	383	759	1,142

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	<u>1993</u>		
	<u>RURAL</u>	<u>URBAN</u>	<u>TOTAL</u>
People Killed	12	2	14
People Injured	248	599	847
Fatal Acc.	9	2	11
Injury Acc.	156	401	557
P.D.O.* Acc.	354	789	1,143

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	<u>1992</u>		
	<u>RURAL</u>	<u>URBAN</u>	<u>TOTAL</u>
People Killed	14	5	19
People Injured	255	660	915
Fatal Acc.	12	4	16
Injury Acc.	147	423	570
P.D.O.* Acc.	269	776	1,045

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\*P.D.O = Property Damage Only

**Consider these points when  
summarizing your article:**

◆ **Article 2**

*Source: KDOT News Release – May 1997*

## **Kansas Highway Work Zones to be Targeted Again for Increased Enforcement; Statistics Released From 1996 Enforcement Effort**

The Kansas Department of Transportation and the Kansas Highway Patrol will coordinate efforts again to make highway work zones safer for workers and motorists.

“The enforcement efforts of the Kansas Highway Patrol are critical for the long-term success of the ‘Give ‘Em A Brake’ work zone safety program,” said Secretary of Transportation E. Dean Carlson.

KHP troopers will again target designated work zones on Kansas highways during the 1997 construction and maintenance season.

According to 1996 KHP statistics, 1,775 citations were issued for speeding and other offenses in the targeted construction and maintenance work zones. In cases involving moving violations, the fines troopers issued were double the monetary amount usually assessed in non-work zone areas.

An additional 1,165 warnings were issued by troopers to motorists in work zones.

“When drivers are stopped for an infraction in a work zone, or see another motorist stopped in a work zone by a trooper, then the message becomes very clear. Drivers must follow posted work zone speed limits and proceed with extreme caution,” said KHP Superintendent Lonnie McCollum.

During the 1996 “Give ‘Em A Brake” work zone safety campaign, KDOT and KHP enforcement efforts focused on nine work zones around the state. But the Highway Patrol monitors vehicle speeds in all work zones.

A complete breakdown of citation activity for the nine selected work zones follows.

<b><u>U.S. 169/Johnson County</u></b> Days Worked: 4 Total Citations: 7 Total Warnings: 0	<b><u>U.S.154/Ford County</u></b> Days Worked: 24 Total Citations: 105 Total Warnings: 212	<b><u>I-135/McPherson County</u></b> Days Worked: 5 Total Citations: 34 Total Warnings: 39
<b><u>U.S. 81/Ottawa County</u></b> Days Worked: 74 Total Citations: 778 Total Warnings: 265	<b><u>I-35/Franklin County</u></b> Days Worked: 5 Total Citations: 6 Total Warnings: 20	<b><u>I-70/Thomas County</u></b> Days Worked: 4 Total Citations: 19 Total Warnings: 38
<b><u>I-70/Trego County</u></b> Days Worked: 8 Total Citations: 98 Total Warnings: 41	<b><u>K-177/Riley County</u></b> Days Worked: 26 Total Citations: 337 Total Warnings: 159	<b><u>K-15/Sedgwick County</u></b> Days Worked: 48 Total Citations: 391 Total Warnings: 391

## ◆ Article 3

*Source: KDOT News Release – April 1994*

### **Work Zone Leaves KDOT Employee “Lucky to be Alive”**

Pat Inman, KDOT Engineering Technician in Norton, knows firsthand that work zones are dangerous places.

On June 6, 1986, at about 2 p.m., Inman was flagging traffic on the south end of a construction project on U.S. 283 about three miles south of Norton where core drilling of the asphalt roadway was taking place.

Inman signaled one driver around the work area, but the following driver did not see the signs or slow down and hit him at about 60 mph, he said. He was thrown up into the windshield of the vehicle and landed about 90 feet away.

After the accident, Inman was taken to a Wichita hospital because he had bilateral open fractures of both legs, a compression fracture of a vertebrae in the neck, two broken bones in the back of his left hand and half of his left ear scraped off. Injuries to his ear, face and head required about 400 stitches.

Inman has no recollection of what happened and he suffered extensive short-term memory loss following the accident. “It was many days before I even remembered that John F. Kennedy was no longer the president,” he said. Inman’s memory loss extended to friends and family – he couldn’t even remember his wife or son.

After two weeks in the hospital, Inman gradually regained his memory. He also had to have five more reconstructive

surgeries on his face and ear, his left leg was rebroken to straighten it and he made 24 trips to an orthopedic doctor in Hastings, Neb.

“It was probably three years before I felt I was back even close to where I was before,” Inman said. “My ankle and the places where the broken bones were still get sore. Even after all these years I hurt at times.”

But Inman says he is lucky. “I’m extremely fortunate and thankful every day to even be here,” he said.

At the time of the accident, Inman was on the materials field crew in Norton and after about one year, he returned to work at the laboratory in Norton. “The guys in the lab just knocked themselves out to help me,” Inman said. “Everyone was very supportive. I had a big box full of cards and letters from co-workers, family members and friends.”

Inman said he is more alert in work zones and is all for the KDOT “Give ‘Em A Brake” campaign. “I think anything that can make the public more aware is very beneficial,” he said. “It will help us immensely.”

He and his wife, Jonna, have two children; Kyle, 9, and Andrew, 6. Inman has worked for KDOT in Norton for 22 years.

### **Consider these points when summarizing your article:**

- ◆ How the accident happened
- ◆ Inman’s injuries
- ◆ Recovery time



## Article 4

*Source: May 1994 Midwest Contractor magazine  
Updated: November 1995*

# Highway Work Zone Safety

Almost everywhere, rehabilitation of interstates, state highways and other roads is increasing, bringing some much-needed business to area contractors and great benefits to the nation's motorists.

However, on the flipside of that positive is the negative: Each year, hundreds of people die in highway work zones.

Maybe one of those hundreds had been on the job for 20 years. Maybe they just joined the crew a few days before. Maybe they worked for you. Maybe you didn't know them. Then again, maybe they were your friend.

And, of course, that person could have been you.

According to information based on the Federal Highway Administration's (FHWA) latest statistics, 680 people died in work zones during 1991. That translates into an average of about two people losing their lives each day due to some type of accident in a construction zone.

As bad as that is, it's still an improvement over the period of 1988-90, when the number of people who died in the nation's work zones numbered 780, 782 and 783, respectively.

Furthermore, estimates by the American Traffic Safety Services Association (ATSSA) pegged disabling injuries for 1991 at 25,000. Between 1988-90, that number was even higher, as 28,600, 28,300 and 26,300 people experienced disabling injuries while traveling through highway work zones.

No matter the numbers, the plain truth is these very human tragedies are too often looked upon by motorists, contractors and state highway department personnel — in short, too many — as something that happens to somebody else.

"Some of our workers say you tend to get a bit blasé about it all," said Anita Helt, public information officer with

the Kansas Department of Transportation (KDOT). "You can forget that you have this traffic going by at 65 miles per hour."

### **Increasing public awareness and contractor education**

The state in the Midwest Contractor-territory probably doing the most right now to change the way its motorists look at highway work zones is Kansas.

And for good reason.

This current fiscal year and the next will be the two largest in terms of construction costs contained in the eight-year Kansas Comprehensive Highway Program (CHP). Approximately \$1.3 billion will be invested to improve the state transportation system in FY 1996 and FY 1997. Work is currently underway or will begin soon on more than 600 construction projects.

### **Dealing with the American traveling public**

Iowa Department of Transportation's Fred Walker, acting director of transportation safety, indicated motorists' familiarity with highway work zones may be breeding disregard.

"I think one of the things we have to consider is when things become routine, drivers are probably not noticing what is going on," Walker said.

Walker said that perhaps work zones have become mundane to motorists. "When we first came out with orange construction zone signs, I think they caught people's eyes," he said. "Today, I think people drive by an orange sign and it doesn't have any outstanding meaning for them."

Of what is going through motorists minds, KDOT's Helt said: "People just have so many other things on their minds these days, I think it's really easy to not notice a work zone."

Roger Schwartze, field liaison engineer, Missouri Highway Transportation Department, concurred with Helt about motorists' attitudes toward work zones.

"A lot of people drive through work zones and don't even notice they drove through one," he said.

Said Nebraska Department of Roads' Roger Henning, "Nowadays, it seems like everyone is in such a hurry. They're probably just thinking about themselves."

While this is certainly no excuse for killing somebody, it is a fact that contractors and state highway agency personnel should remember as they work just feet – and sometimes inches – from speeding traffic.

It should be remembered, too, that not all work zone

accidents and fatalities are the fault of the motorist.

Sooner or later, somebody is going to suffer tragic consequences as the result of becoming just a little too blasé about his or her job.

Said Walker: "Let's face it, their number one priority is to get the work done. Like anyone else, they (sometimes) get in a hurry and they don't always do the things they should to protect themselves."

Added Helt: "It's not only the public's responsibility. It's our responsibility as well to really pay attention and to watch out for each other. Just to look out for your neighbor and your co-worker."

## Consider these points when summarizing your article:

- ◆ Positive/negative side of highway work
- ◆ Number of injuries, deaths in work zones nationwide
- ◆ Why increase public awareness
- ◆ Need for education of highway workers

<b>National Work Zone Accidents and Fatalities</b>			
<b>Year</b>	<b>Disabling Injuries</b>	<b>Fatalities</b>	<b>Death Rate</b>
1987	27,300	702	2.55
1988	28,600	780	2.46
1989	28,300	782	2.25
1990	26,300	783	2.15
1991	25,000	680	2.01

*(Based on information provided by the National Safety Council and the American Traffic Safety Services Association)*



## ◆ Article 5

*Source: Virginia Department of Transportation Bulletin newsletter*

# Sharpen awareness in work zones

The need to educate both highway workers and the public about safety in the work zone is not new. But because the traffic through Virginia's highway projects has gone from light to heavy and work zone accidents are more common, the need has sharply escalated. Bill Craig, executive vice president of the Virginia Road and Transportation Builders Association, said the recent emphasis on education is vital because most crews are working in high-traffic areas now.

In the 1970s and early 1980s, much of the construction was "new location" work that did not involve existing roads and traffic.

"Now most of the jobs require that crews move traffic through the work zone. They are not used to it and they need to be trained how to handle it," says Craig, who worked with the department in initiating the recently completed work zone safety conferences which took place in each district.

The conferences provided the groundwork, but Craig says it will take continual follow-ups and additional programs to ensure proper education. Developing a work zone safety video that could be shown to workers at the job site is one proposal under consideration.

Another video could be made for driver's education classes, and possibly another for the public, to be shown to civic organizations, Craig says.

Educating workers is a priority, but Craig says the personnel who deliver road building materials to the site must

also be trained in work zone safety. That type of program would differ somewhat and has not yet been developed.

"This kind of road construction is going to continue into the 21st century and we need to make work zone safety an ongoing priority."

### *Always...*

- ◆ Advise the motorists you are there. Command their attention with signs.
- ◆ Advise the motorists of the route with signs, devices and, if necessary, flaggers.
- ◆ Remove or cover "stale" signs that no longer apply – even for a short period.
- ◆ Be alert and wear a high visibility vest when working in an area not physically protected from traffic.

### *Never...*

- ◆ Cross a concrete barrier into a traffic lane.
- ◆ Step in front of traffic to stop it.
- ◆ Try to flag traffic without proper training, attire and equipment.
- ◆ Turn your back to traffic when flagging.

### **Consider these points when summarizing your article:**

- ◆ How work on highways in 1970s and 1980s was different from today
- ◆ Safety advice for highway workers

## ◆ Article 6

*Source: KDOT's Bureau of Traffic Engineering*

# Be prepared for roadway, traffic changes

## Pavement Markings

There are two colors of pavement markings – yellow and white. Yellow pavement markings are used to separate traffic moving in opposite directions. The most common use of yellow pavement markings is along the centerline of a two-lane highway. White pavement markings are used along the right edgeline and between lanes moving in the same direction. You should not cross a solid line except for a two-way left-turn lane. A two-way left-turn lane is marked by a solid yellow line adjacent to through traffic and a dashed yellow line adjacent to the turning traffic. It is for the exclusive use of left turn vehicles and is not to be used for passing or travel by a driver except to make a left turn. A dashed line of either color indicates that crossing the line is allowed, however, always make sure that the lane is clear before changing lanes.

## Speed Limits

A speed limit sign shows the maximum speed limit established by law. It has black lettering on a white sign. An advisory speed is used in combination with a warning sign to indicate the speed recommended by an engineering study of the existing conditions. It has black lettering on a yellow sign (or an orange sign in a work area). A typical application

would be a curve warning sign with an advisory speed plate below.

## Pavement Dropoffs

A dropoff is an elevation difference generally the result of work occurring on the shoulder or an adjacent lane. The most important thing to do if a wheel drops off the traveled way is to SLOW DOWN! This will allow time to gain control of the vehicle and to re-enter the roadway at an appropriate time. Do not jerk the steering wheel; this could cause the vehicle to overturn, even with a small dropoff. After slowing down, check the traveled way for other vehicles and slowly re-enter the roadway.

## Lane Changes/Merging

Don't wait until the last minute to make lane changes and/or speed reductions, especially in work areas where a lane change is needed due to a closed lane. Make the necessary lane change as soon as it is safe. Drivers who wait until the last minute cause unnecessary conflicts and congestion. However, merging into a stream of traffic at a speed lower than the running speed of traffic can be just as dangerous. Try to match the speed of other traffic, then smoothly merge into the flow.

## Consider these points when summarizing your article:

- ◆ What is the difference between yellow and white pavement markings
- ◆ What is the best thing to do when encountering a pavement dropoff
- ◆ What is the difference between a speed limit and speed advisory sign
- ◆ What is the best way to merge in or out of traffic

# Activity 4

Win, lose or draw

## Vocabulary list

accident	highway
alert	highway worker
asphalt	injury
barrel	maintenance
barricade	merge
brake	motorists
bulldozer	obstacle
caution	orange
closed	patience
collision	repair
common sense	resurface
concentration	safety
concrete	shadow vehicle
cone	sign
construction	slow
crash	speed
cushion	stop
danger	tailgating
diamond	transition zone
delays	transportation
detour	truck
driver	KDOT (Kansas Department of Transportation)
flag	vest
flagger	visibility
hard hat	warning
hazard	work zone

# NOTES

# NOTES

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*Developed by the Kansas Department of Transportation in cooperation with the Kansas State Board of Education. A special thanks to the Virginia Department of Transportation.*