

# Read Your Road

Every Highway User's Guide to Driving Safely



 U.S. Department of Transportation  
**Federal Highway Administration**

-  Reading the Road - for Safety
-  Pavement Markings
-  Traffic Signs
-  Traffic Signals
-  Sharing the Road
-  Navigating the Road
-  Dangers, Hazards and the Unexpected



TRIVIA EN ROUTE

## Who owns, operates, and maintains the Interstate highway system?

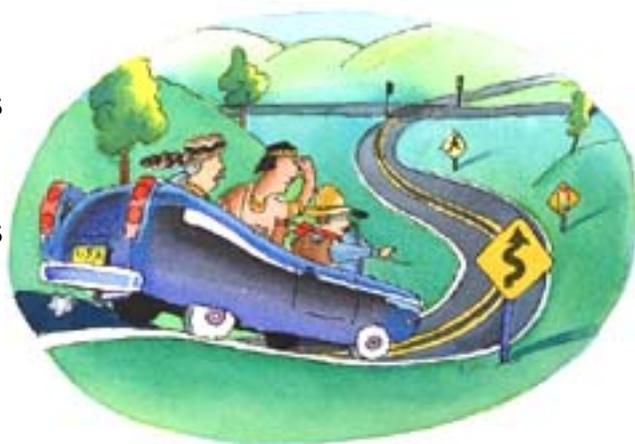
Answer at the bottom of the page

*Read Your Road*

# Reading the Road – For Safety

## The Language of the Road

Signs, signals, and markings are the way every road communicates with highway users. Even the earliest explorers, and the Native Americans before them, had signs and markings to help them follow trails. Being skilled at reading trail markings was essential then. It still is now!

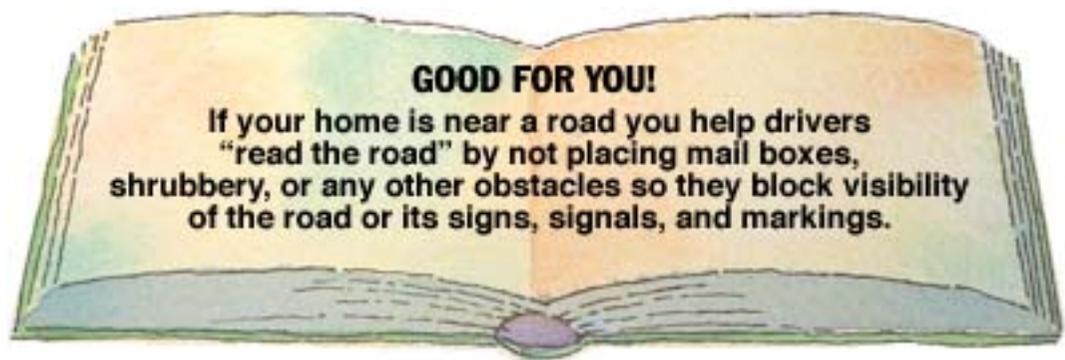


When you learn to read the subtle messages of the road, you will be more skilled - and safer - while exploring the great American highway system. Understanding the language of the road will serve you far from home on trips and on the streets of your own home town.

Signs, signals, and pavement markings are the language of the road. They communicate with color, shape, and placement. You may already know the basic language, but there is more to learn.

## Safety Is Up to You

Good highway design can only do so much to ensure safety. Signs, signals, and markings are a constantly unfolding guide book for drivers, day and night and in all kinds of weather. But in the end, safety is the responsibility of every driver.



Many highway situations are dangerous unless drivers cooperate. This guide talks about lane changing, merging, left turns and left exits, work zones, pedestrian crossings, and other special situations. The road is common ground that has to be shared. Responsible sharing is the key to safety.

All the signs, signals, and markings discussed here have the same goal: your safety and the safety of others with whom you share the road.

The great American road is yours! But only to share. Learning to read the language of road signs, signals, and markings will help you share sensibly and stay safe.



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TRIVIA EN ROUTE ANSWER

Each state owns, operates, and maintains that part of the Interstate highway system within its borders.

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TRIVIA EN ROUTE

**Yellow lines on the road separate traffic traveling in the same direction or in opposite directions?**

Answer at the bottom of the page

*Read Your Road*

## Pavement Markings

*Colored markings on the pavement give drivers important safety cues. What pavement markings have to tell you can even save your life. You probably know about most pavement markings, but here are a few tips and reminders every motorist can use.*

### White on Your Right, Yellow on Your Left

The two colors used for most pavement markings are yellow and white. Almost every kind of paved roadway, from two-lane roads to freeways, communicates with yellow lines and white lines.



The color carries the marking's message.

Remember:

- White lines separate traffic traveling in the same direction and mark the right edge of freeways and ramps.
- Yellow lines generally separate traffic traveling in opposite directions - and they mark the left edge of divided highways and ramps.

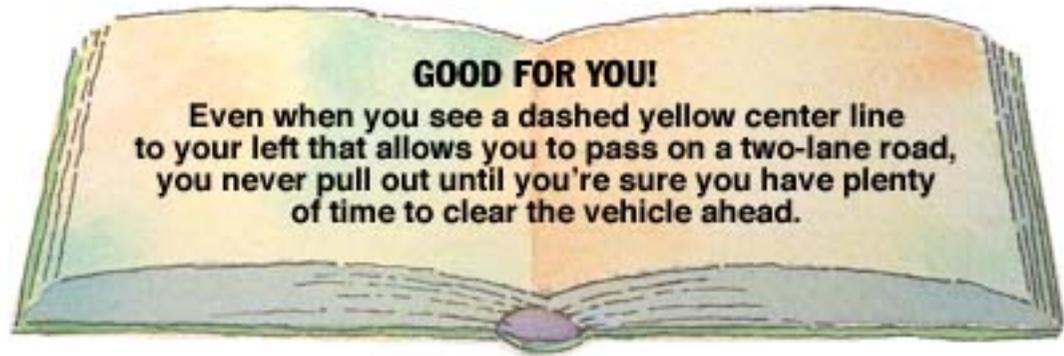
TIP: If you ever see a yellow line on the right edge of a divided highway or a ramp, you're are going the wrong way!!!

Because solid white lines are used to mark the right edge, check

for "white on your right" on any divided highway or ramp you enter to make sure you're traveling in the correct direction.

Solid white lines are also used as visual barriers to discourage lane changing in certain critical situations - such as where turn lanes are added to the roadway at intersections, and where vehicles are entering or leaving a freeway.

Dashed white lines separate traffic going in the same direction on roads with multiple lanes.

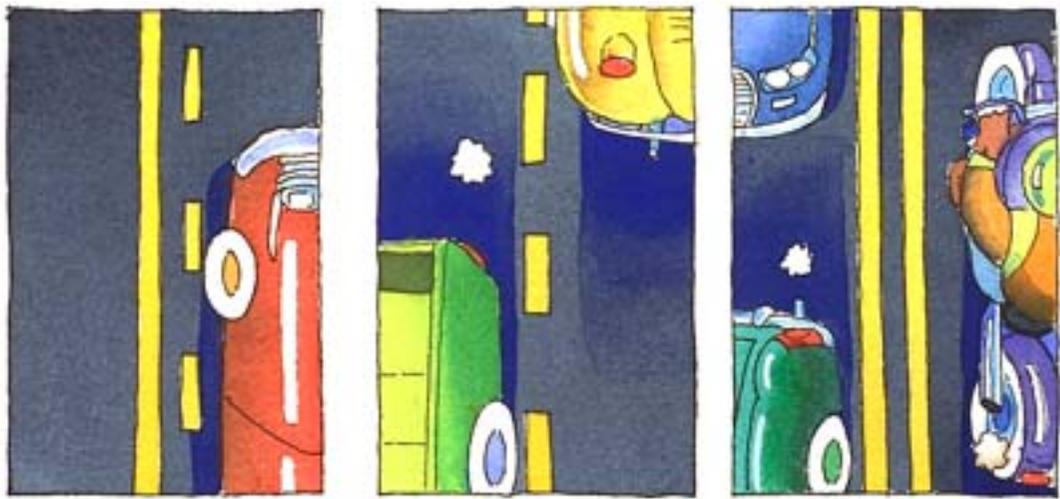


## Yellow Lines and the ABCs of Passing on a Two-Lane Road

**A.** Double solid yellow center lines mean no passing is allowed in either direction.

**B.** A single dashed yellow center line tells you that you are allowed to pass other vehicles if the road ahead is clear; but vehicles coming the opposite direction are allowed to pass, too.

**C.** A combination of solid and dashed yellow center lines communicates two messages:



## Pavement Markings

- If the dashed line is in your lane, you are allowed to pass with caution.
- If the solid line is in your lane, you are not allowed to pass.

## Special Markings

Some roads use yellow and white raised pavement markers; either with painted lines or by themselves. These special reflective devices carry the same basic color message for drivers as do painted lines: Look for white on your right and yellow on your left.

Special pavement markings tell drivers about special locations. The approach to school zones and railroad crossings have distinctive pavement markings that warn drivers to use extra caution. When you see these markings, slow down and pay attention to the warning signs that appear along with these special markings.



TRIVIA EN ROUTE ANSWER

Yellow lines on the highway, whether solid or dashed, generally separate traffic going in opposite directions.

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TRIVIA EN ROUTE

## What does a diamond- shaped sign mean?

Answer at the bottom of the page

*Read Your Road*

# Traffic Signs

*While traveling on freeways, you see a lot of signs. You may think you know most of them, but some might cause confusion. And, given the high speeds and rapid decisions required on freeways, understanding and knowing how to read all the signs will help you travel more safely; since you'll know in advance what to expect.*

## Common Traffic and Pedestrian Signals

### Regulatory Signs



### Warning Signs



### Motorist Information Signs



## Guide Signs



Signs used at pedestrian, bicycle, and school crossings have a new color. Look for it. It's called fluorescent strong yellow-green and it's easier to see than the yellow signs you are familiar with, especially in twilight or overcast conditions. That's why this special color of paint has been chosen for signs in areas where pedestrians and bicyclists are most at risk.

When you are driving and you see this unique strong yellow-green color on any crossing sign, be especially cautious. Watch carefully for pedestrians, school children, bicyclists, and others who may be trying to cross the road.

## Less Well-Known Freeway Signs

### LEFT EXIT

Most freeway exits are on the right, but occasionally there will be a left exit. Exiting from the left calls for extra caution; because the left lane is the lane where vehicles travel at higher speeds. That's why it helps to have plenty of advance warning of the occasional left exit.

Most of the time a special yellow EXIT ONLY panel will be added to the bottom of the freeway guide sign. But there's also another clue that's often used. It's in the way the exit number panel is positioned above the freeway guide sign. Look up to see where the small green exit number panel is positioned. Most are on the right side. But if the exit number panel is on the left, then the exit will also be on the left.

Knowing how to read the position of the panel gives you extra time to move safely into the left lane to exit; or, if you are not exiting, to be alert for vehicles that are and to make way for them so they can change lanes safely.

### EXIT ONLY

A yellow exit only panel below a green freeway guide sign means that the



lane under this panel becomes the exit ramp. If you remain in that lane, you can only exit the freeway. This forced exit situation becomes very dangerous if drivers make erratic moves to avoid it. Keep the following points in mind about exit only lanes.



- Exiting may be permitted from more than one lane, but only the lane(s) under the sign will be exit only.
- Exit only does not mean that there is no return entrance ramp at this interchange.

**TIP:** If you find yourself in an exit only lane when you don't want to exit, do so anyway! It's much safer to exit and return to the freeway than to stop or back up or swerve into oncoming traffic - all of which maneuvers are extremely dangerous!

### **MERGE AND LANE ADDED**

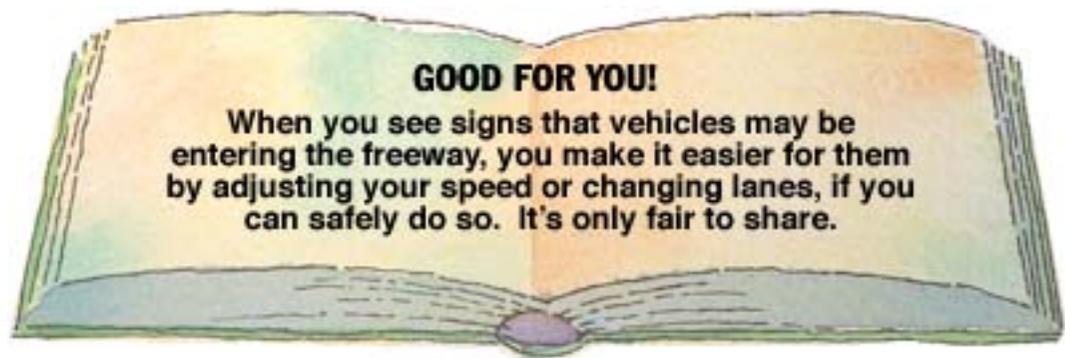
While exit only means that a lane is being "dropped" from the freeway, other signs tell you that traffic is entering the freeway and a lane is being added.



This **MERGE** warning sign tells you that traffic entering the freeway has to merge with freeway traffic.

- If you are on the entrance ramp, be cautious and aware that you will have to merge safely with freeway traffic.
- If you are on the freeway, be alert and prepare to allow vehicles to merge safely.

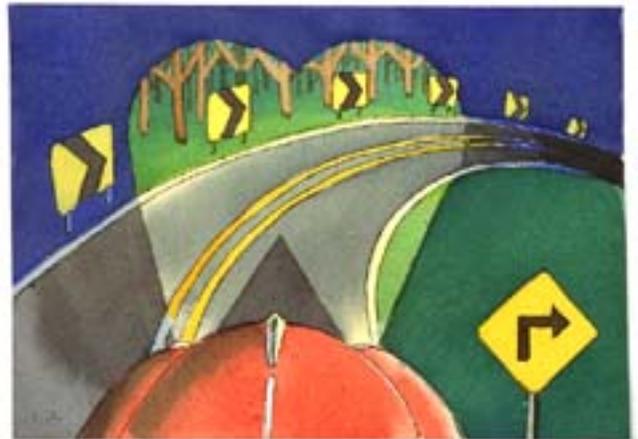
This **LANE ADDED** sign and situation may look like the merge warning at first glance, but there is a very important difference. Take a second look to catch the difference. The lane added sign tells you that traffic entering the freeway does **NOT** have to merge because the ramp becomes an added freeway lane.



- If you are on the entrance ramp, accelerate in the added lane to safe freeway driving speed. You do not have to merge with freeway traffic.
- If you are on the freeway, be aware that traffic may still try to merge because some drivers are not familiar with the lane added situation.

### **CHEVRON SIGNS**DCURVE AHEAD

Chevron signs warn of a sharp curve in the road. Because these chevron signs are a fairly new addition to the American road, some drivers may not know exactly what message they're communicating.



Chevrons mean that you should adopt a safe speed to take a sharp curve in the direction in which they are pointing. Watch for advisory signs with suggested safe speed limits.



TRIVIA EN ROUTE ANSWER

**A diamond-shaped sign always means warning!**

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TRIVIA EN ROUTE

**What color is a standard DONT WALK signal?**

Answer at the bottom of the page

*Read Your Road*

## Traffic Signals

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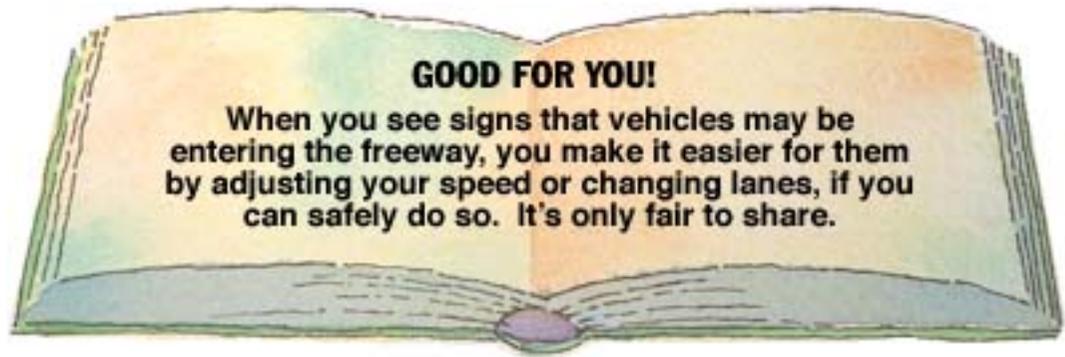


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#### TRIVIA EN ROUTE ANSWER



**The standard color of a DONT WALK traffic signal is orange.**

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TRIVIA EN ROUTE

**In a "weaving section," when traffic is entering and exiting at a freeway interchange, who has the right-of-way?**

Answer at the bottom of the page

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*Read Your Road*

## Sharing the Road

*We all share the road with other motorists. This takes cooperation. Highway signs, signals, and markings communicate with us about safe use of the road. But the bottom line for safety in many highway situations is fairness and cooperation among drivers sharing the road together.*

Safe lane management depends on sharing. Sometimes it is the other driver who needs to merge or change lanes - next time, it could be you. To keep traffic flowing smoothly and avoid collisions takes social interaction. Traffic control devices do their job . . . common sense sharing is up to you.

### **Acceleration Lanes Get You Up to Speed**

Safe sharing is particularly important when traffic is entering a freeway. The entrance ramp usually becomes an acceleration lane. The purpose of this lane is to allow vehicles to increase their speed to match freeway driving speed so they can merge safely.

The acceleration lane is often set off by a solid white line followed by short dashed white lines. These dashed lines extend to where the acceleration lane merges with the freeway.

- Drivers are discouraged, but not prohibited, from crossing the solid white line.
- Drivers should wait until they reach the dashed white lines to merge.
- Drivers in the acceleration lane should keep their speed up and watch for a safe gap in traffic to merge.

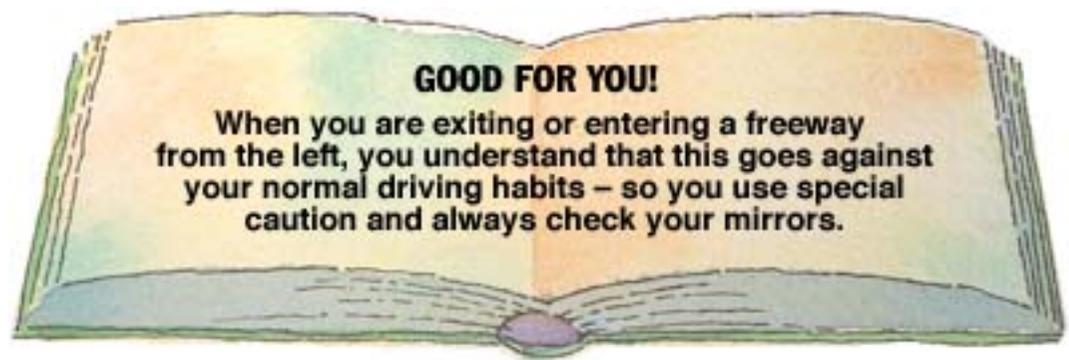
- Drivers on the freeway should cooperate by creating safe gaps that make it easier for entering vehicles to merge.

TIP: The only time you should ever stop on an entrance ramp is when there is no acceleration lane and a yield sign instructs you to wait for a safe gap in traffic. Never back up on a ramp!

## Deceleration Lanes Help You Slow Down

Deceleration lanes are designed to help motorists who are leaving a freeway reduce their speed to make a safe exit. Deceleration lanes, often set off by short dashed white lines, will always lead you to an exit ramp. Here are two things to remember:

- The length and type of deceleration lanes vary from road to road.
- Look for advisory signs that tell you the safe speed for the exit ramp.



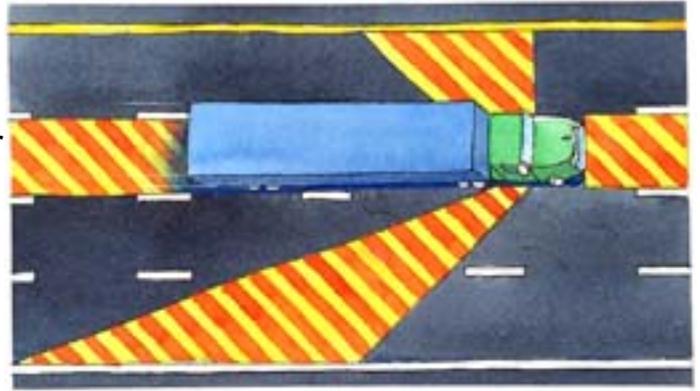
## Changing Lanes and Sharing Lanes

Changing lanes on a multi-lane highway should never be done without thinking and looking. Absent-minded lane changing is extremely dangerous. White lane markings are there to help you, but common sense, alertness, and courtesy are all essential to safety.

- Remember, every vehicle has blind spots. These are areas that are out of view of your mirrors. For safe lane changing, use your mirrors and glance over your shoulder to check your blind spots.
  - Try to stay out of the blind spots of other vehicles.
  - Never cut in where there isn't a safe gap in traffic.
  - Always use your turn signals before changing lanes.

# Beware of the "No Zone"

Trucks, buses, and other large vehicles have larger blind spots than cars do. Remember this when you approach these large vehicles from behind or on either side. In these blind spots, the driver can't see your vehicle in any rearview mirror. Think of these areas as "no zones," and don't linger beside a truck or bus when you are passing.

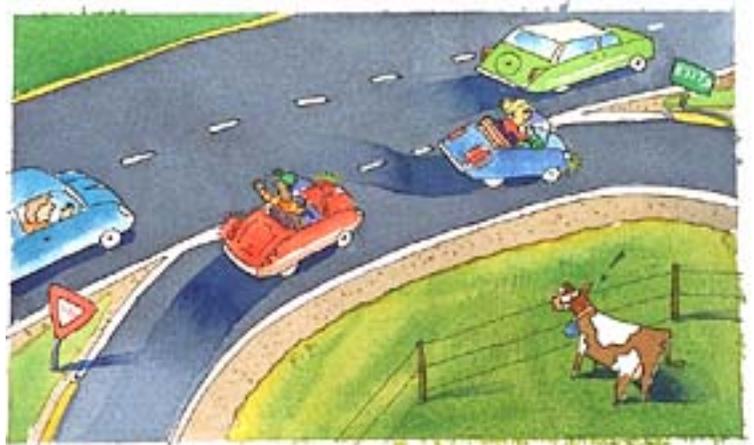


One of the most hazardous lane management situations occurs when freeway traffic is both exiting and entering at the same area. This weaving of vehicles trying to get on or off the highway at the same time creates a kind of "mixing bowl."

A weaving section takes maximum cooperation. It can't work without sharing and sensible social interaction on the part of every driver. Signs and lane markings do their part. Safe drivers have to do the rest.

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## A Special Place: The Two-Way Left Turn Lane



There are special lane markings designed for busy sections of two-way roads where a lot of left turns are made. Such an area is usually a commercial or residential strip with a great many entrances and driveways on both sides of the road.

- A center lane with these special pavement markings is designed to be shared by traffic going in both directions for making left turns.

- For vehicles turning left from the road, it is a place to wait safely for a gap in



traffic to make your turn.

- For vehicles turning left into the road, it is a safe mid-point to wait for a gap in traffic approaching from the right before completing your turn.



In either case, make sure that you are completely in this special lane, and not blocking traffic. And again, in all these lane management situations, the key to safety is sensible sharing.

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TRIVIA EN ROUTE ANSWER



In a "weaving section," when traffic is entering and exiting at a freeway interchange, both through-traffic and exiting traffic have right of way over vehicles entering the freeway.

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TRIVIA EN ROUTE

**What direction are you traveling if you're on an Interstate highway numbered I-494?**

Answer at the bottom of the page

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*Read Your Road*

## Navigating the Road



*You probably know the roads pretty well in the area where you live. You may not even notice your local route number signs anymore. But when any motorist leaves familiar territory on a trip for business or pleasure, highway route markers become very important.*

Here are a few tips you may not know that will help you become a better navigator. Signs are communicating with you to let you know where you are at all times. If you get better at reading these messages, you not only won't get lost, but you'll also make traveling safer for you and your family.



## Decoding the Interstate Numbering System

Knowing what the numbers on Interstate shields have to tell you can be a great aid to navigation. Many motorists think they know how to read the numbers, but they may understand only part of the story. Other motorists are confused by the numbers; still others have never really thought about it.

When you're traveling in unfamiliar territory, Interstate numbers give you valuable clues to your location and direction, if you know how to read them. Here's the key:

- One- or two-digit even- numbered Interstates are always east-west routes. The numbers increase from south (I-10) to north (I-94).
- One- or two-digit odd-numbered Interstates are always north-south routes. Numbers increase from the West Coast (I-5) to the East Coast (I-95).

TIP: Since not all Interstates run due east-west or north-south, the closest cardinal direction that applies to most of the road is used. So, even if a stretch of an east-west Interstate shifts to the south for a while, it is still considered an east-west highway.

## Three-Digit Interstates

Interstate highways with three-digit numbers connect to other major highways.

- If the first of the three digits is an even number, the highway usually connects to another Interstate at both ends - often in a circular "beltway" or loop.
- If the first of the three digits is an odd number, the highway is usually a "spur" route that connects with an Interstate at only one end, sometimes going into a city center.

## Counting Mile Markers

Have you noticed those small markers along the side of Interstate highways and some other roads? They are usually green or white and have the word MILE along with a number; some just have the number.

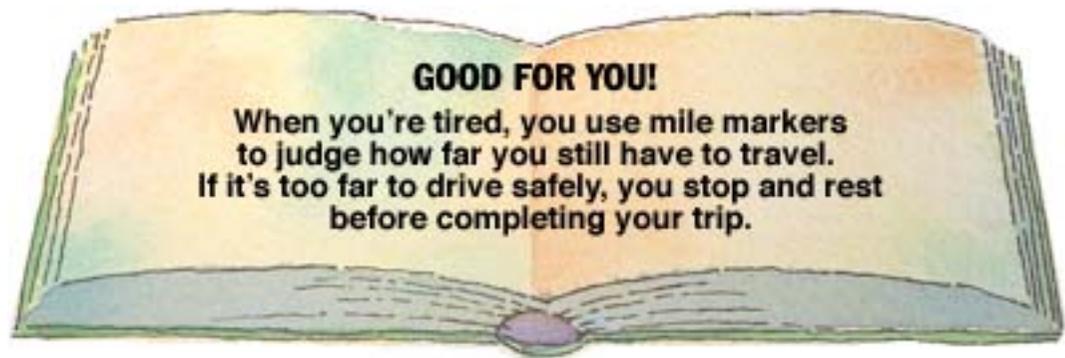
These "mile markers" show the number of miles from where the Interstate route entered the state in which you are traveling. The counting always begins at the state line in the south (for north-south routes) and in the west (for east-west routes). So, mile marker numbers always get larger as you travel east or north.

For example, if you enter North Carolina from South Carolina traveling on I-95, the mile markers will begin with "Mile 1" and get larger as you drive north through the state. When you cross the state line into Virginia, you will see "Mile 1" again.

TIP: When a major highway or Interstate originates inside a state, the numbering begins (south-to-north or west-to-east) from the junction where the road begins.

Knowing how to read mile markers can help you:

- Know exactly where you are.
- Determine how far it is to your destination.
- Do your planning before a trip.
- Give an exact location if you have to call for roadside assistance.



## Interchanges and Mile Markers

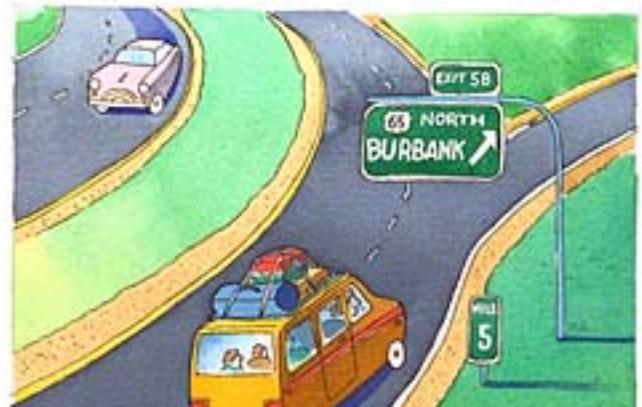
Each state uses one of these systems for numbering its Interstate interchanges:

- Some states link Interstate interchange numbers to mile markers, so that the number on the mile marker is the same as the number of the Interstate exit or interchange. Exit 40 will be at or very close to Mile 40. This is a real aid to navigation and trip planning. For example, if your destination is Exit 50, you know it's only 10 miles away.
- Some states number their Interstate interchanges consecutively, without linking them to mile markers. Exit 40 may be at Mile 140, and Exit 50 at Mile 240 - so don't make the mistake of thinking the next exits are only 10 miles apart.

Look at a map to figure out which system is being used. Also watch the exit and mile marker numbers to see if they match. But, remember:

- If you enter a state from the south or west, the mile markers will begin with Mile 1. If you enter a state from the east or north, the first numbers you see will be large and they will get smaller as you travel.
- There may be an Exit 1 immediately at Mile 1, but check the numbers further along the highway to see if they continue to match.

You may also see mile markers on roads off the Interstate system, but the markers and the numbering systems may be different from state to state - or even county to county. Watching these numbers will still be useful if you have to call for



assistance.



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TRIVIA EN ROUTE ANSWER

If you are on an Interstate highway with the number I-494, you may be traveling in a circle. (Trick question!) Three-digit Interstates beginning with an even number are often loops.

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**Federal Highway Administration**



TRIVIA EN ROUTE

**What is the only highway sign that is round?**

Answer at the bottom of the page

*Read Your Road*

## **Danger, Hazards, and the Unexpected**

*When driving, you will encounter situations that take special care. This section reviews several of these. When you see signs, signals, or pavement markings that tell you you're approaching one of these special situations, you need to be extra cautious.*



### **Work Zones**

In any work zone along any road, major or minor, expect the unexpected! Normal speed limits are reduced, traffic lanes may be changed, and people and vehicles may be working on or near the road. All this means that motorists must be even more alert in and near work zones.

Why? Because men and women working on the road risk injury; and even death; and construction machinery can pose a threat to drivers who are not aware of construction warning signs and what they mean.

Orange diamond-shaped warning signs are generally posted in advance of a road construction project. Besides a warning sign, a highway worker will often be posted with a sign or a flag. When you see these warnings, stay alert and be prepared to obey special work zone signs and flagger's directions.

### **Here are some things to remember about work zones:**

- Things may look more or less unchanged to you, but the situation and circumstances in a work zone are often very different from normal.
- White regulatory signs that show a reduced speed limit may be posted along with orange work zone signs. For instance, the normal 55 MPH speed limit may be reduced to 45 MPH or less in a work zone.
- Lanes are likely to be closed in work zones and traffic patterns changed as the work progresses. Watch for detour and lane diversion signs.

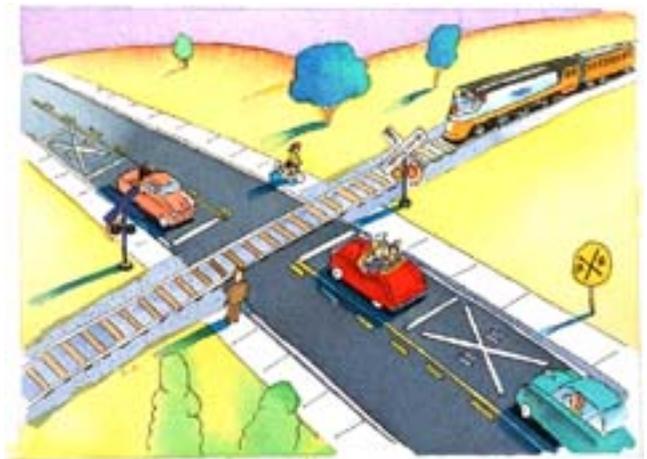
TIP: In a work zone, a flagger has the same authority as a regulatory sign, so you can be cited for disobeying his or her directions.

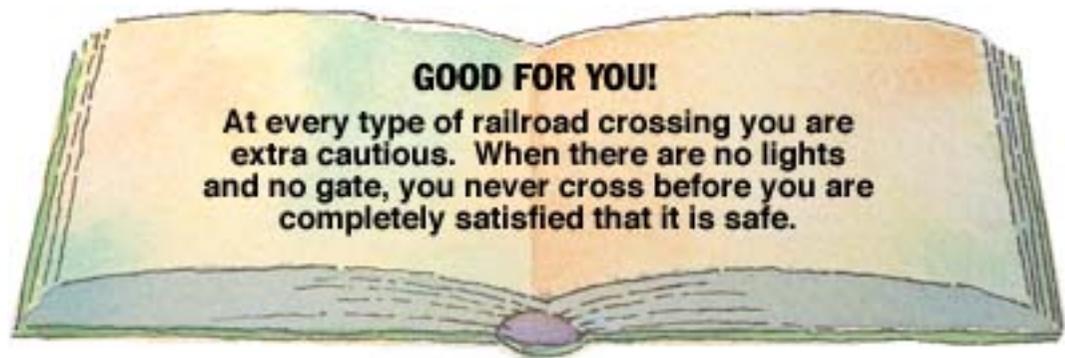
## **Railroad Crossings**

Did you know, that you are 30 times more likely to be killed in a collision with a train than in a collision with another car?

One of the most potentially hazardous situations you will find as a driver is where a road and a railroad cross paths.

Because trains are large, fast moving, can't swerve to avoid a collision, and can't stop quickly, it is up to you to always yield to a train.





Special signs, signals, and pavement markings are used to warn and regulate motorists at railroad crossings. Here is a list of them - but remember, don't expect to see all of these devices used at every railroad crossing.

- Advance warning sign used on approach to a railroad crossing.
- Pavement marking used on approach to a railroad crossing.
- Railroad crossbuck at the crossing.
- Flashing lights at some crossings.
- Gates at some crossings.

Both the round yellow advance warning sign and the crossbuck are unique signs in the highway system. The advance warning sign warns that you are approaching a railroad crossing, while the crossbuck sign marks the location of the tracks and should be treated as a yield sign. You must yield to trains wherever you see a crossbuck, whether or not you see flashing lights at the railroad crossing.

### Active and Passive RR Warnings

At especially dangerous railroad crossings, you may see the crossbuck with (1) flashing lights or (2) with flashing lights and a gate that is lowered across the road when a train is approaching. NEVER second guess these warnings or try to go around the gate.

Flashing lights and gates are active warnings. However, at nearly two-thirds of all railroad crossings across the nation, only passive warnings are in place - signs, pavement markings, and crossbucks. The passive signs and markings warn you and require you to yield to a train, but you are the only one who can decide when it is safe for you to cross.

## Rumble Strips

Most of the messages on the road are visual. But rumble strips make you feel and hear the message as well.

Rumble strips are small indentations or narrow raised strips on the highway or shoulder. They are put there to vibrate the steering wheel and to make a noise inside the vehicle to get the attention of the driver. Here are the reasons rumble strips are placed where they are:

- To alert the driver to a decision point ahead - such as an intersection after a long stretch of uninterrupted road.
- To wake the driver who may have dozed off - used on the shoulder of the road, usually along a long straight-away.
- To caution the driver about the danger of passing - used in the center of some two-lane roads where passing is hazardous.
- To alert the driver to some new or unexpected situation ahead - such as dangerous curves, a toll booth, a railroad crossing, or the end of a freeway.

Don't confuse rumble strips with speed bumps used in some parking lots and residential areas. Rumble strips don't force you to drive slower and will not damage your vehicle. They are safety warnings for your protection.

TIP: When you hear the noise made by a rumble strip, don't think you have a mechanical problem with your car. Listen for the sound again. Look for warning signs or special situations.

Rumble strips in travel lanes are almost always used along with a cautionary sign or other traffic control device that tells you what to expect ahead.

## Now That You Know How to Read Your Road . . .

For your safety and the safety of others, "read" what all traffic control devices - road signs, signals, and pavement markings - are telling you. They have been placed there for a reason: to help you stay alert and stay alive!



TRIVIA EN ROUTE ANSWER

The railroad advance warning sign is the only highway sign that is round.

