
Adjusting to Driving Conditions

Chapter 6

- This chapter provides guidelines on how to drive safely in a variety of conditions.
 - **Defensive Driving** – The steps you take to avoid collisions or crashes
 - 1. This term refers to the precautions the driver takes to avoid collisions or crashes.**
 - A. Defensive driving**
-

Using the SIPDE System

- Nothing you do will guarantee that others will see you,
 - The only eyes you can count on are your own
 - Experience drivers make a habit of knowing what is happening around them.
 - They create a driving strategy known as **SIPDE**
-

SIPDE

- 31-35. The acronym “SIPDE”, stands for what 5 words that the book recommends as a driving strategy?

Scan Identify Predict Decide Execute

31. Scan

32. Identify

33. Predict

34. Decide

35. Execute

Scan

- *Search aggressively ahead, to the sides and behind for potential hazards even before they arise.*
- How assertively you search, and how much time and space you have can eliminate or reduce the impact of an accident.
- Focus on finding potential escape routes around intersections, schools, shopping centers, and commercial zones.

36. This can be defined as searching aggressively to the side and behind to avoid potential hazards even before they arise.

36 - scan

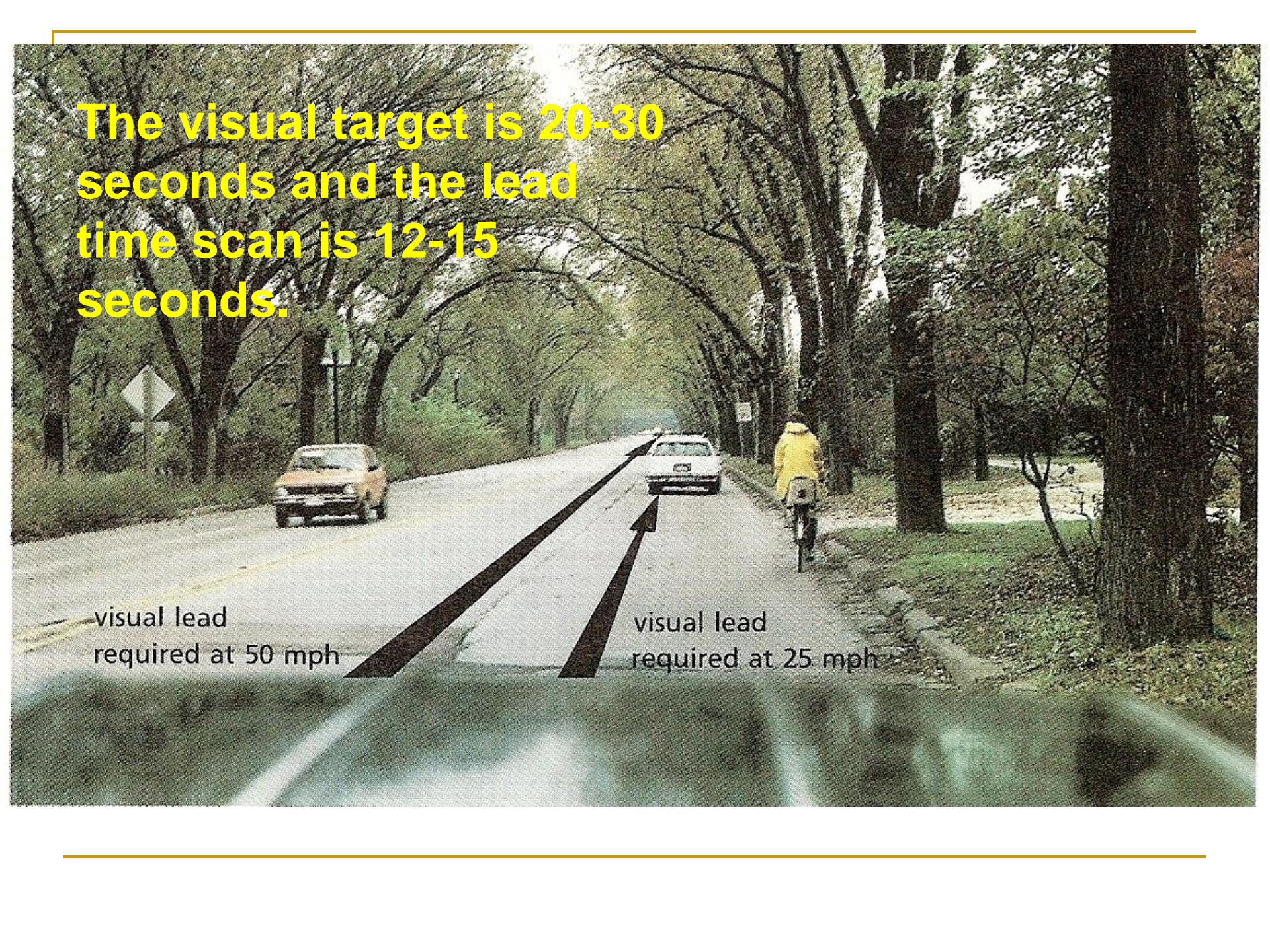


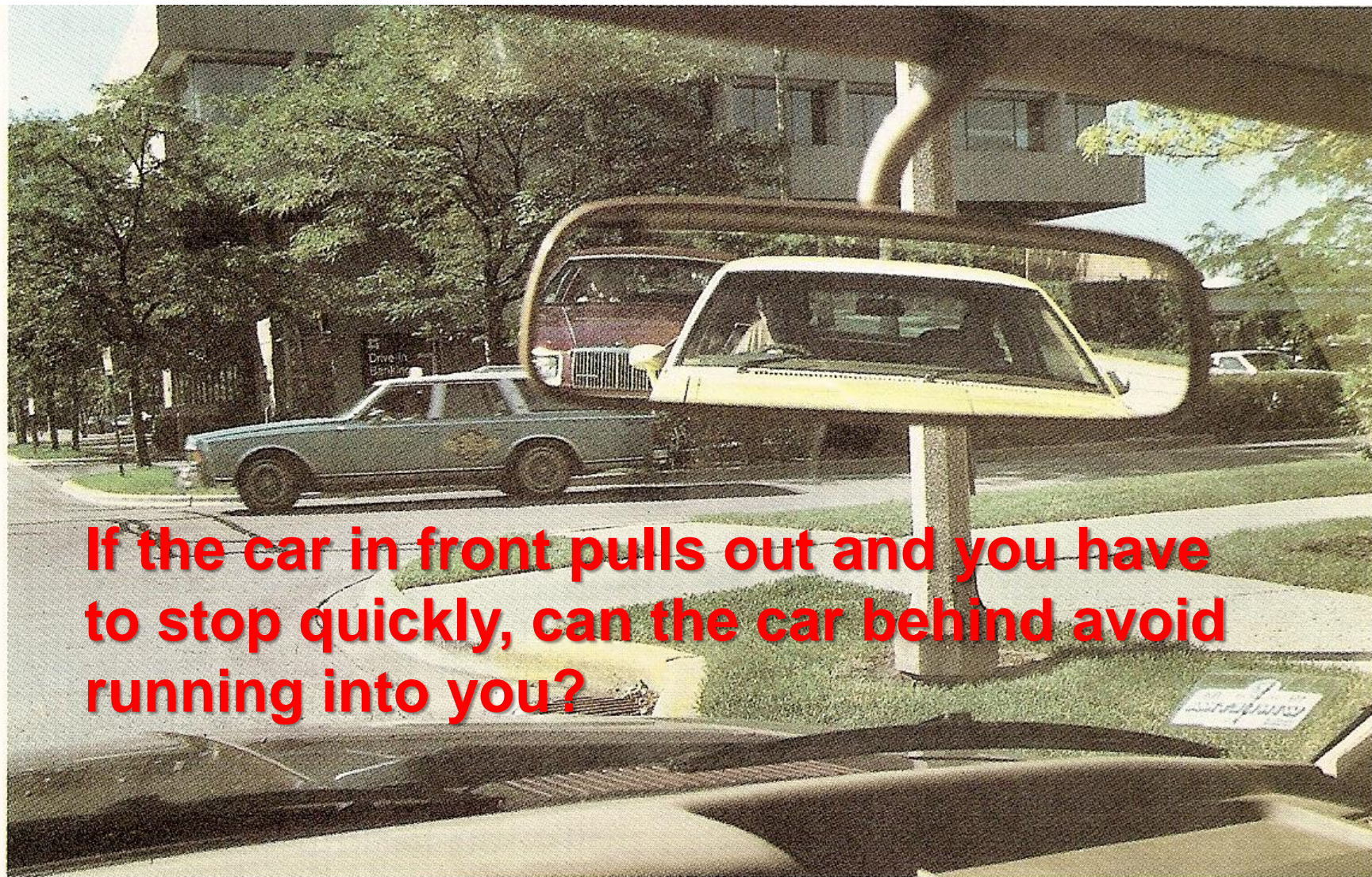
If you do not recognize the disabled car and pedestrian walking on the road, you could have an accident. The sooner you identify the hazard the sooner you can react

The visual target is 20-30 seconds and the lead time scan is 12-15 seconds.

visual lead
required at 50 mph

visual lead
required at 25 mph





If the car in front pulls out and you have to stop quickly, can the car behind avoid running into you?

2. If you are being tailgated you should

2-D – slow down and increase your following distance

42. TRUE OR FALSE. When a vehicle is following too close you may speed up slightly (within 5 mph) higher than the posted speed limit to create safe space between you and the tailing vehicle.

42 -False

do not speed up and exceed the speed limit

Search for:

- Oncoming traffic that may turn in front of you.**
 - Traffic coming from the right or left**
 - Traffic approaching from behind**
 - Hazardous road conditions**
-

Identify

- Locate hazards and potential conflicts:
 - Cars, motorcycles and other vehicles that may move into your path.
 - * ***Pedestrians and animals are unpredictable*** and make short, fast movements
 - Stationary objects potholes, guard rails, bridges, roadway signs, hedges, or trees may influence your driving strategies.



37. **TRUE** OR FALSE. Pedestrians and animals are unpredictable and make short fast movements.



Predict

- Consider
- Speed,
- Distance,
- Direction of hazard to anticipate how they may affect you.
- Cars moving **into your path** are more critical than those moving away or standing still

38 - 40



Decide

- Based on your **prediction**, decide what you need to do if the situation changes quickly.

41. When driving, you must be making decisions constantly to cope with constantly changing traffic situations.

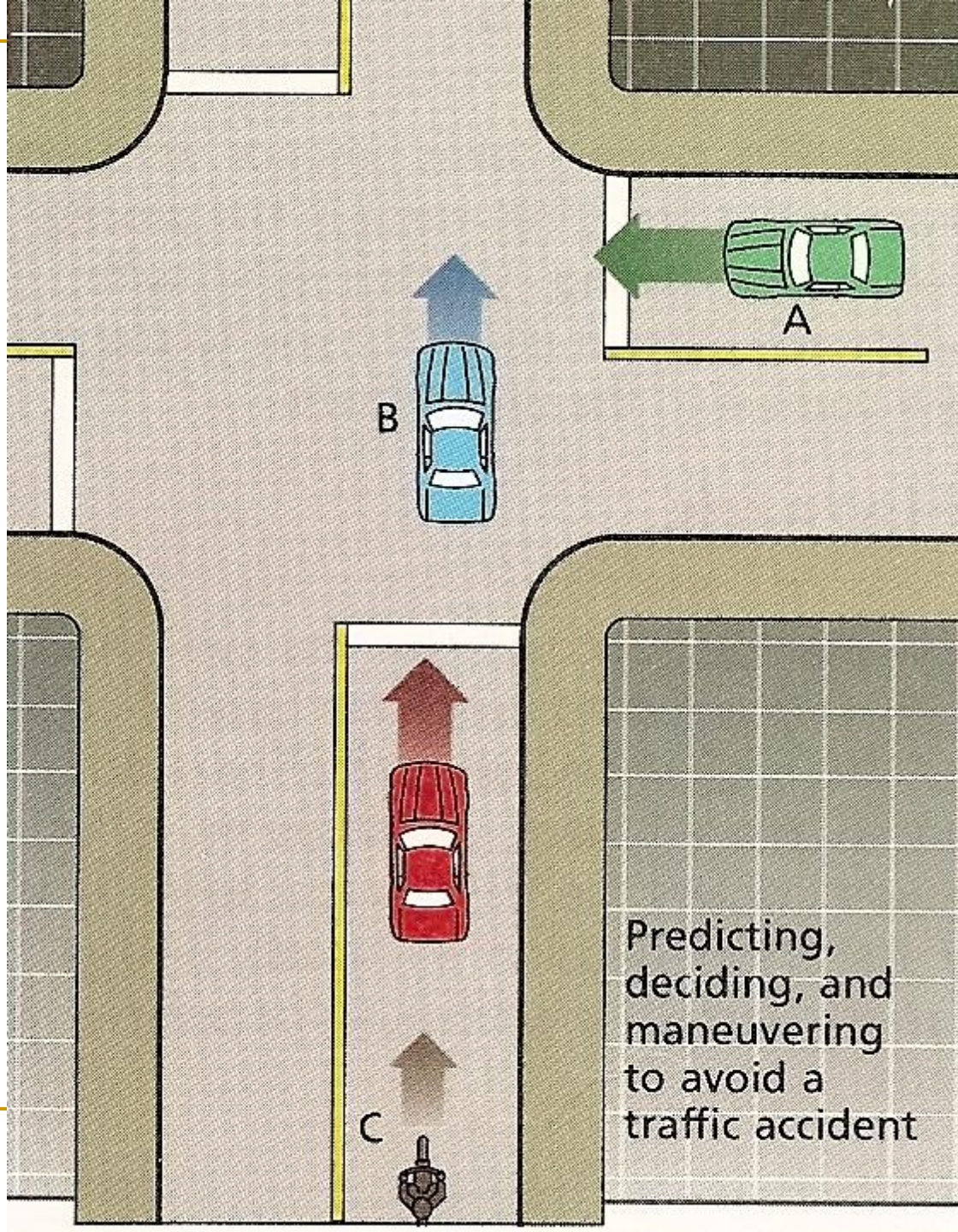
True

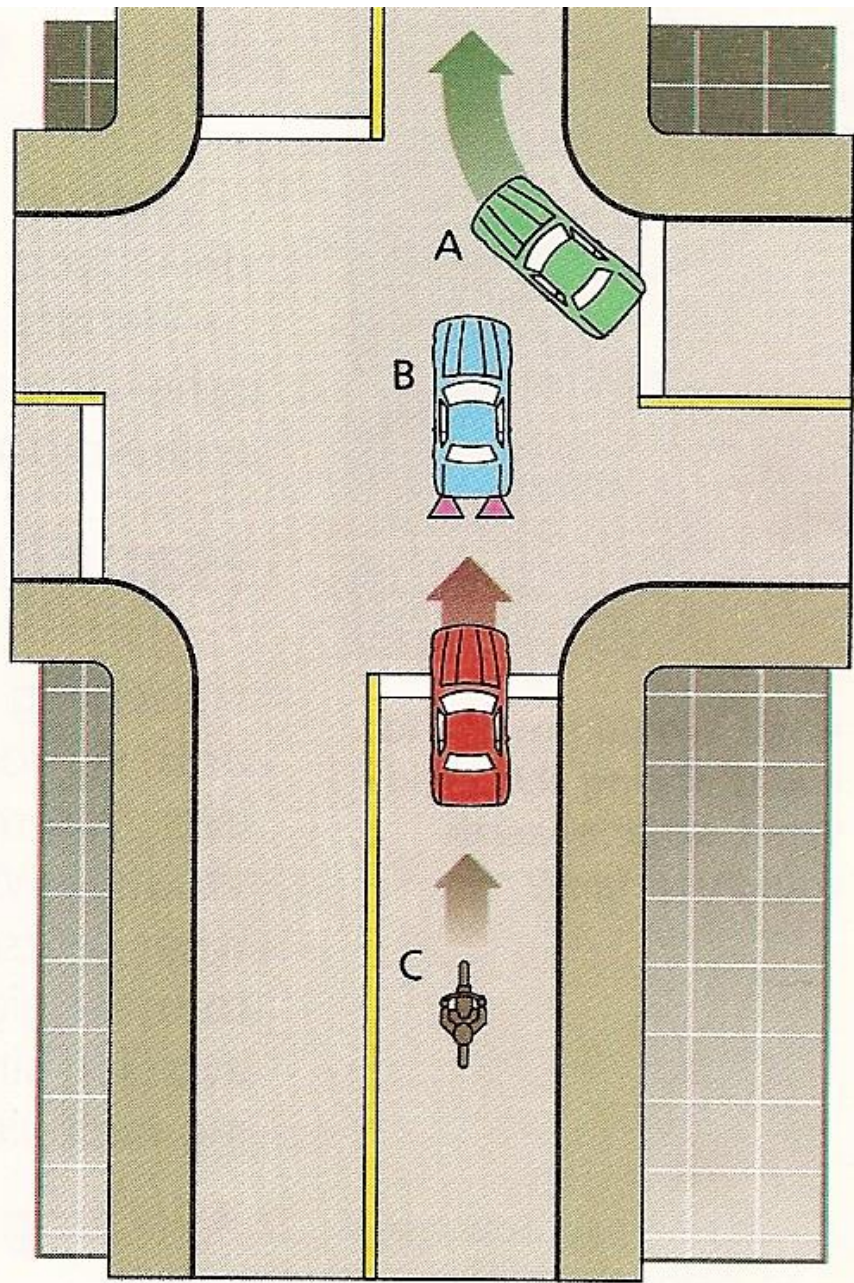
Execute

- Carry out your decision. To create space and minimize harm:
 - **Communicate** your presents with **lights** and or **horn**
 - Adjust your **speed** appropriately
 - Adjust your **position** and or **direction**

Situations for using SIPDE

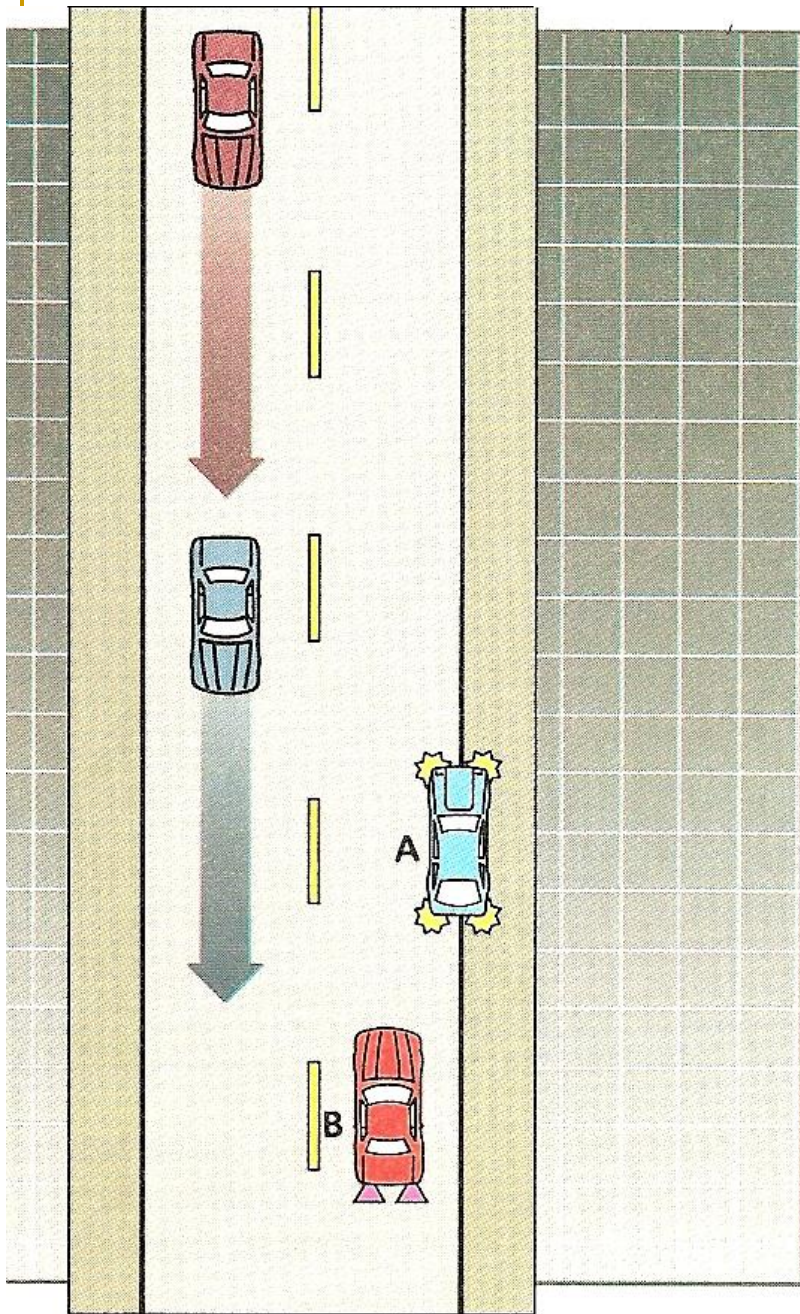




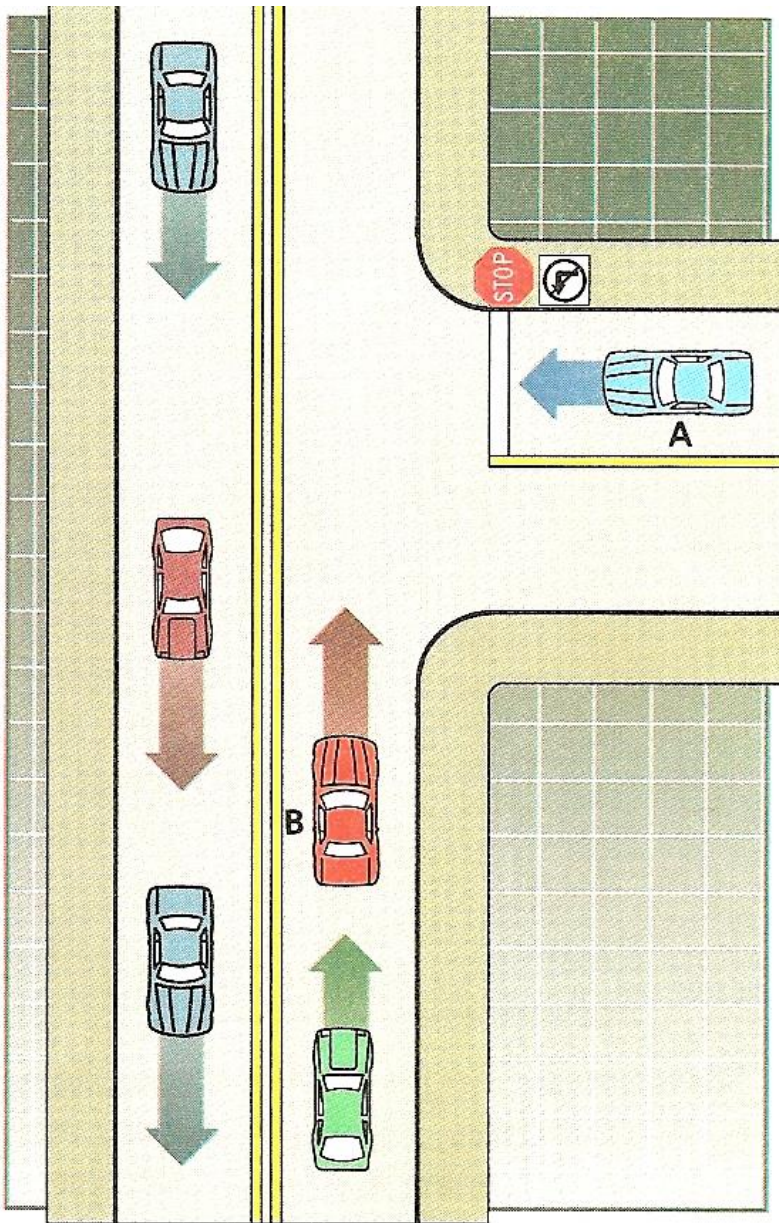




**What would you do to
avoid hitting this child?
What other hazards
could you face?**

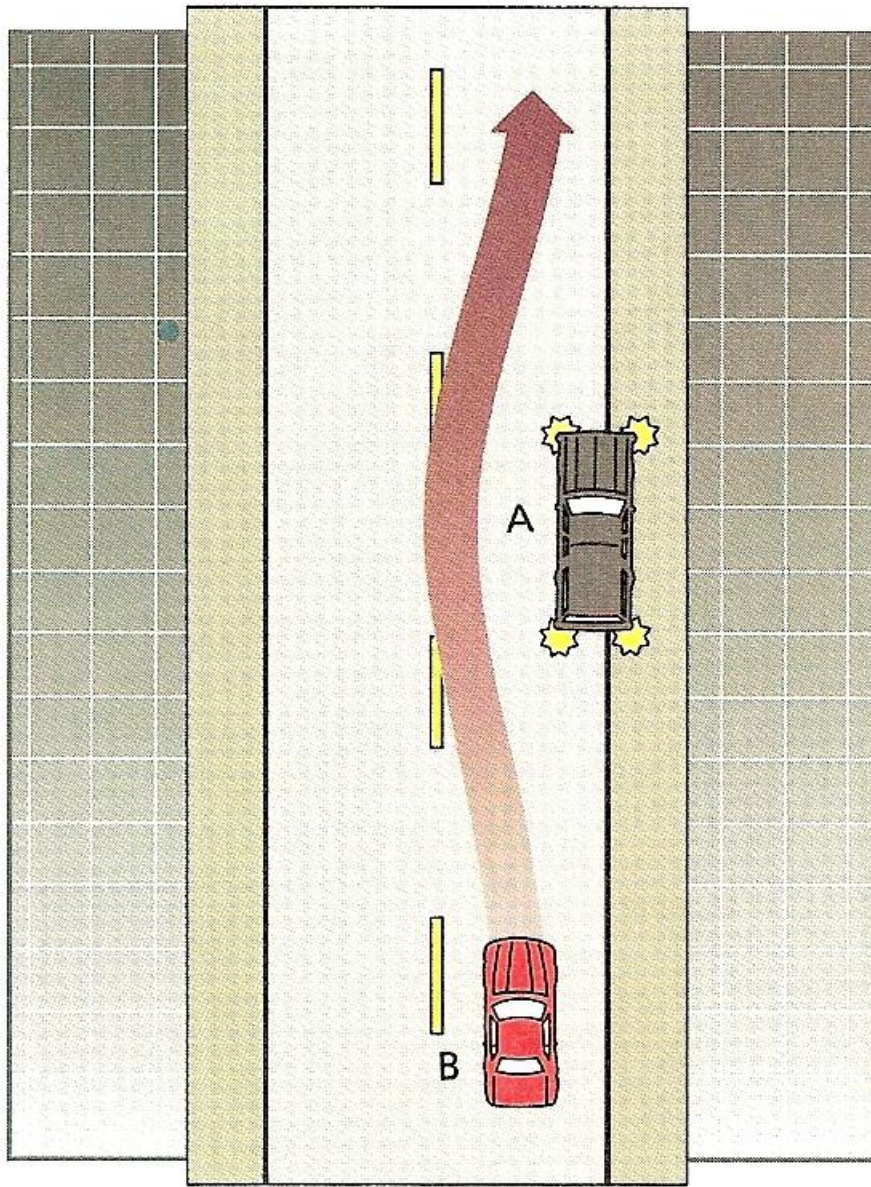


You are car B how should you respond to the situation?

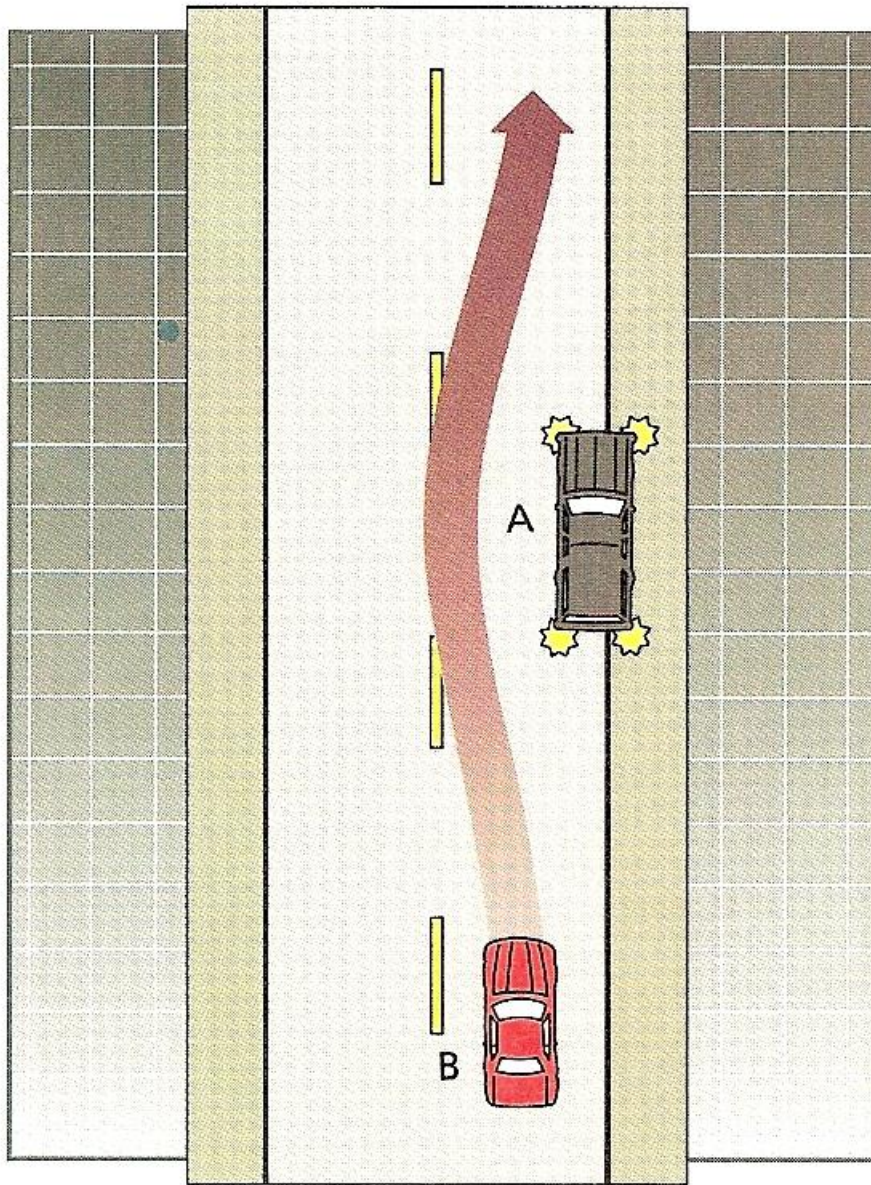


You are car B it appears that car A is going to run the stop sign.

What action could you take?



What are some things that may affect how you would react to this situation?



Any oncoming cars.

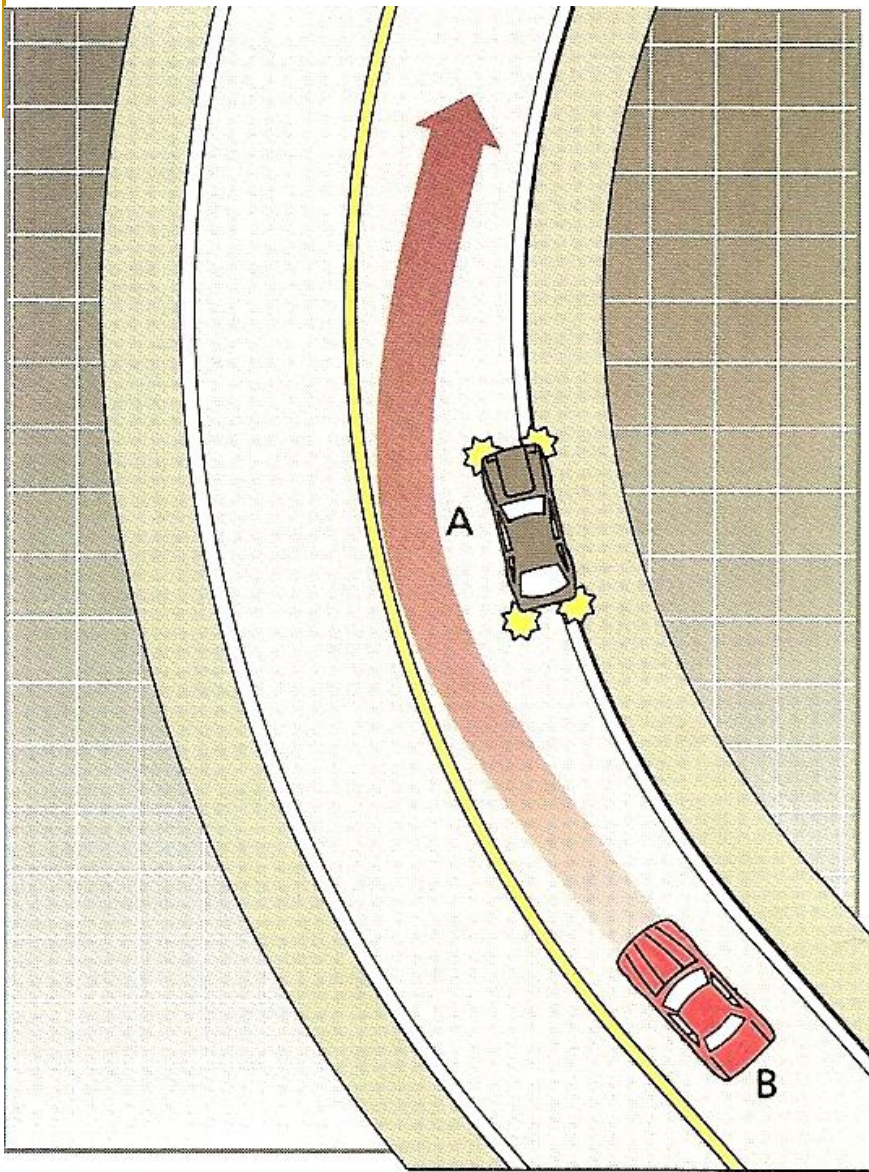
Any side streets or roads ahead.

Is car A moving or standing still.

Is there a driver in the car

Anyone outside the car.

Any car in my blind spot or behind my car



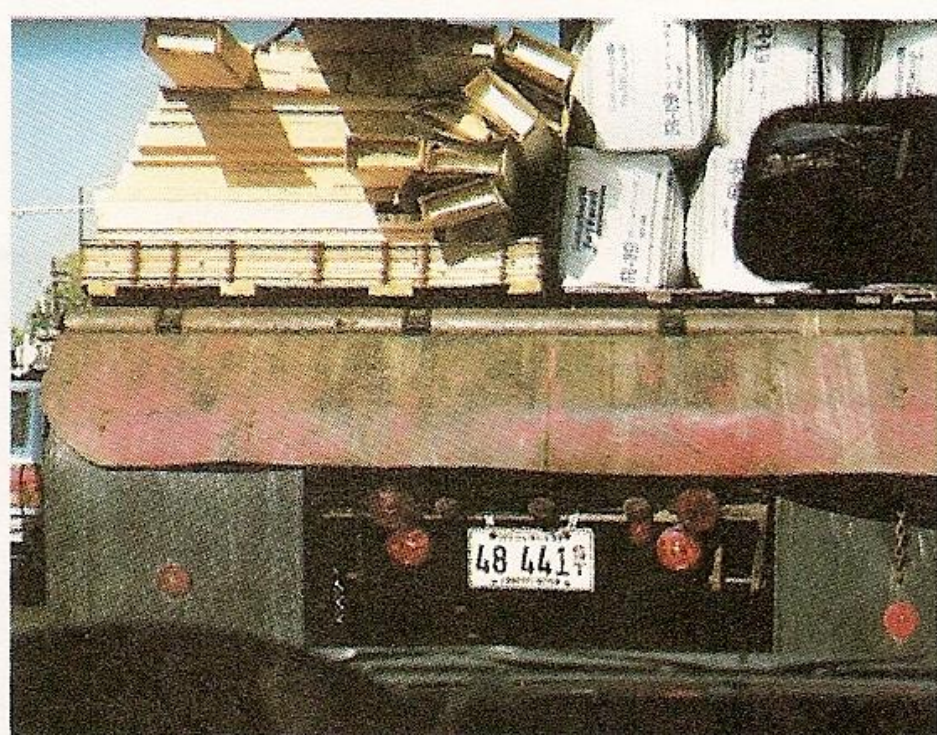
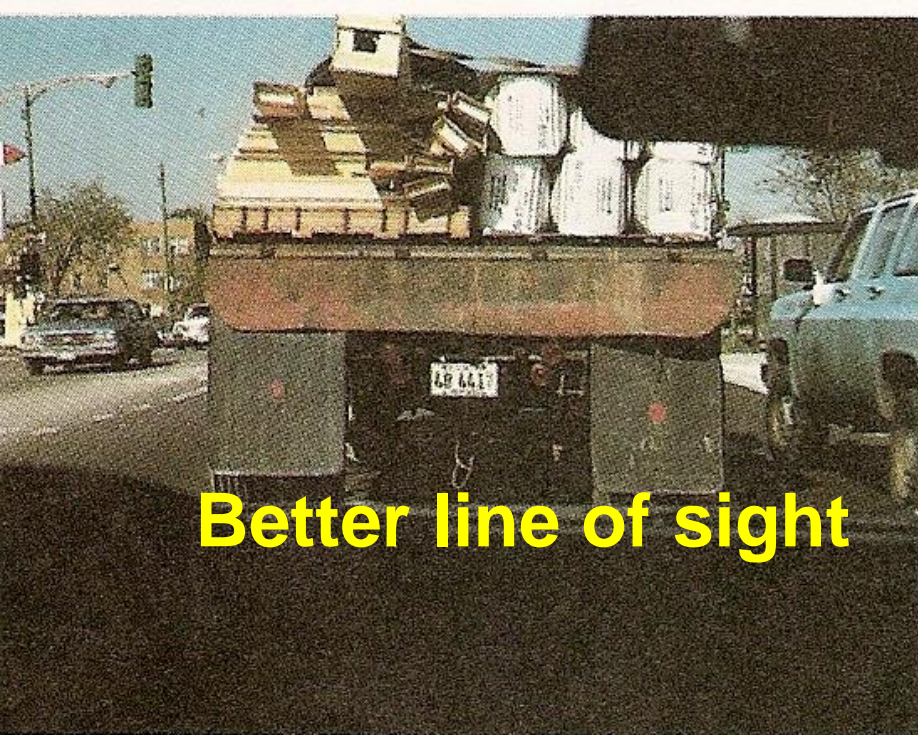
How is your decision going to change in this situation?

by other fac-

Avoiding a single hazard

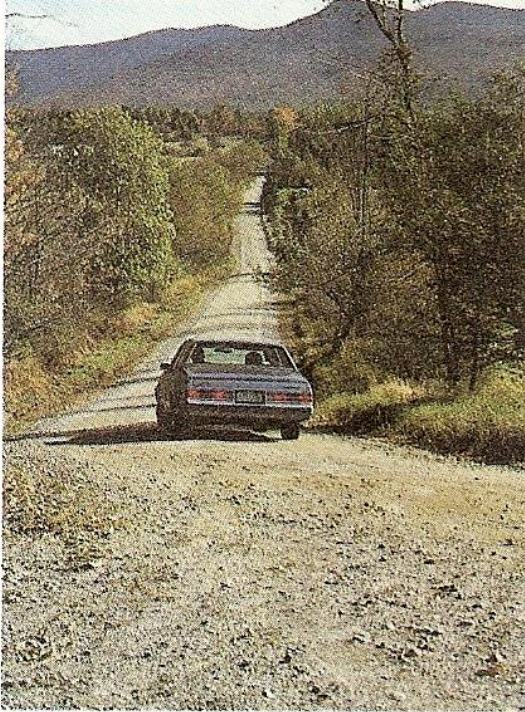


A driver can often avoid a last-second swerve by identifying hazards farther ahead. Visualize a target area 12 to 15 seconds ahead of your vehicle

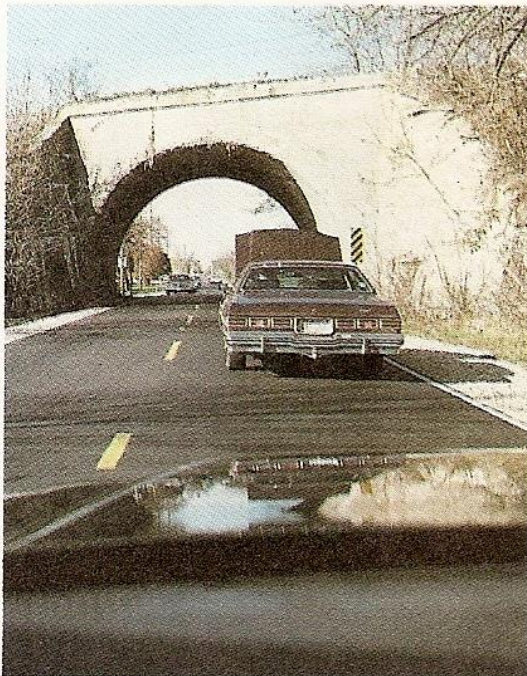


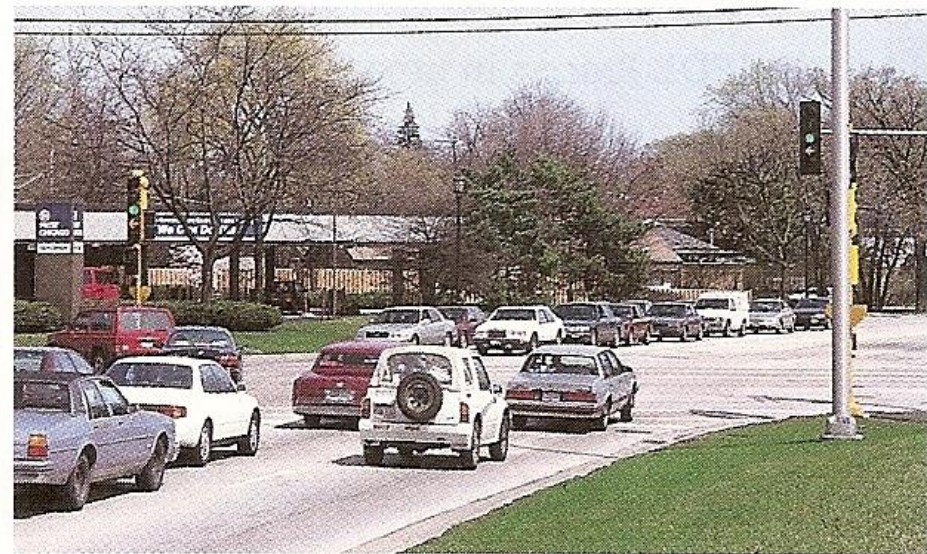
Increasing following distance, especially behind large vehicles such as this, results in increased visibility.

Reduces (line of sight)



What adjustments should you make for the **poor road surface** or **limited space** shown here?





The number of urban hazards can vary dramatically.

176 Unit 3 Driving in Different Environments and Situations

The number of urban hazards can vary dramatically at different times of the day.



3. The suggested following distance for standard-length vehicles in ideal conditions is 3 seconds.

“Three Second Rule”

In **poor** weather or with vehicles longer than standard length, increase your following distance to 4 or 5 seconds

If you are **being tailgated**, **slow down slightly and allow the vehicle to pass.**



To determine a 3-second following distance, start counting as the rear of the car ahead passes your fixed checkpoint (bridge shadow).

Stopping Distance

- The distance you need to stop your vehicle can determine a safe following distance, but your actual stopping distance will depend on many factors, including:
 - • The time it takes a driver to see and recognize that there is a danger ahead.

The length of time from perception of danger to using the brakes happens in $\frac{3}{4}$ seconds.

- • Weather conditions.
- • Condition of your tire treads.
- • Type and condition of your brakes.

88. The length of time from perception of danger to using the brakes happens in $\frac{3}{4}$ seconds.



films

- Using your eyes effectively



Night Driving

4. Nearly **1/2 of all fatal crashes** occur at **night.**

- To help ensure that you will reach your destination safely, **study road maps and directions before starting out.**
 - Make sure the **lights are working and your windshield clean and free of defects.**
-

Headlights

- * **1,000 feet** from an oncoming car &
- * **200 feet** or less when following
- Your lights must be on low beam.
- * Must be on from **sunset until sunrise.**
- * **In rain, snow, hail, sleet, or fog.**
- When you cannot see clearly for **500ft.**

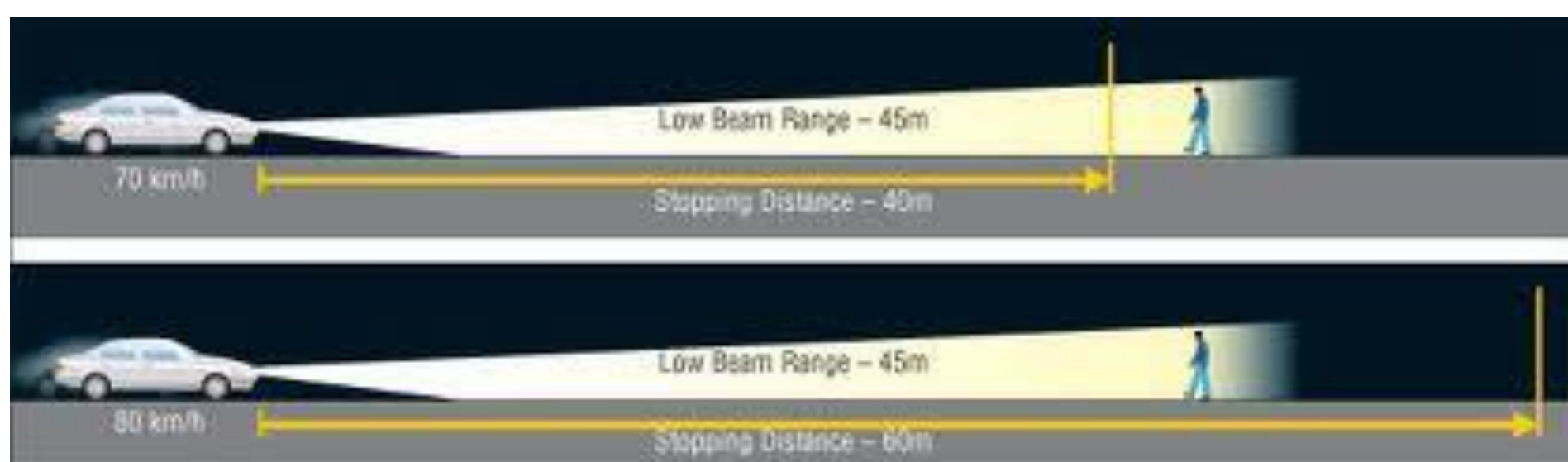
5. **TRUE OR FALSE.** You must dim your headlights within 1000 feet of an oncoming vehicle. **TRUE**

Don't “overdrive” your headlights

- Don't drive so fast you cannot stop in the distance you can see ahead.
- For most vehicles this distance is @ **350** feet on **high beam**.



6. When you **overdrive** your headlights you are unable to stop in the distance illuminated in your headlights.



Glare

- Most common glare is from oncoming cars at night.
- Direct your vision to the **right side of the road**.
- Watch the **white edge stripping**.
- For glare from behind adjust the **day/night** rear view mirror.
- Adjust a regular mirror to cut out as much light as possible



7. MULTIPLE CHOICE. You can avoid glare by:

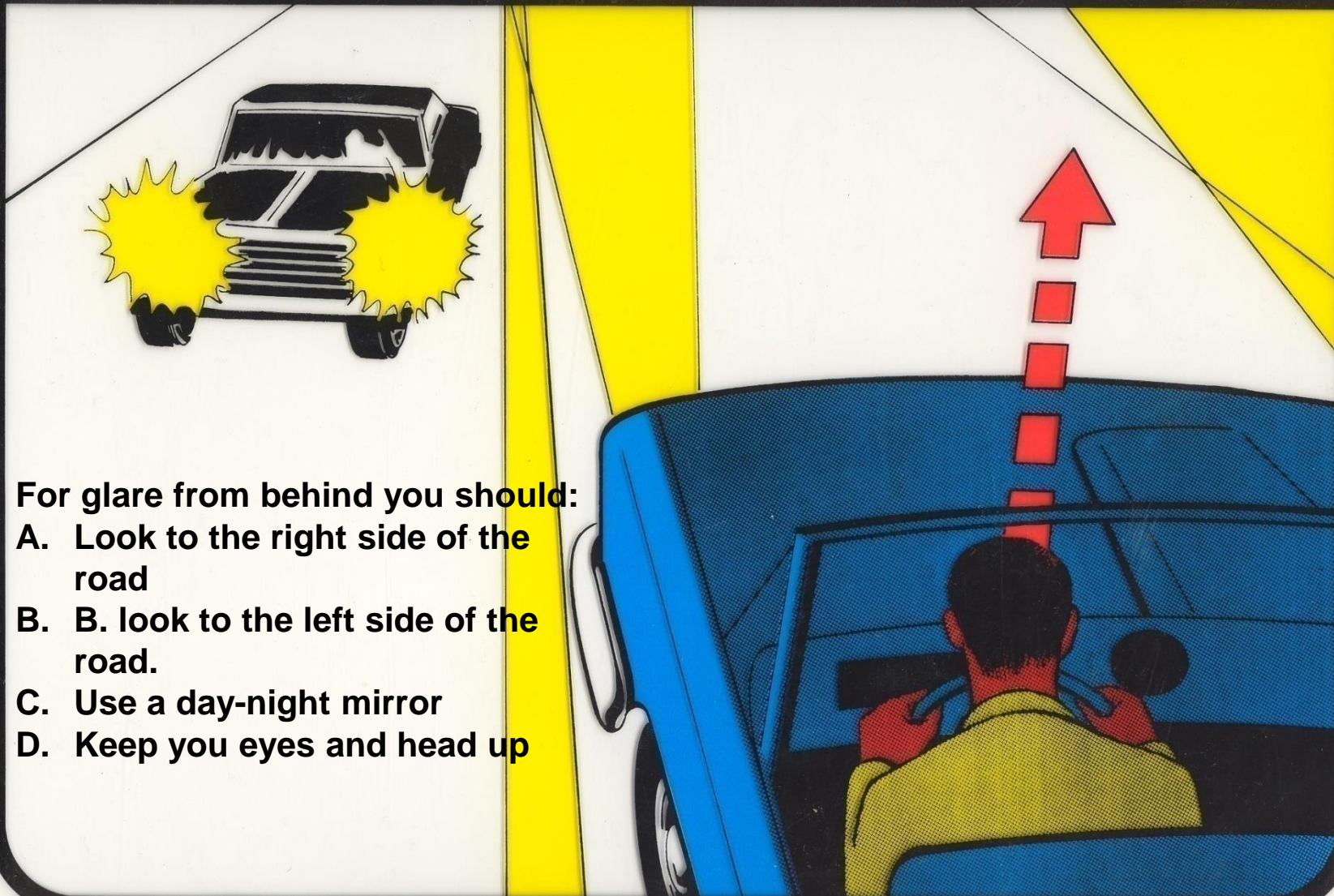
a. Turning your headlights to bright and blinding the other driver.

b. Turning the dash lights to dim to reduce the light.

c. Stopping in the road until the other motorist has passed.

d. Look at the white line on the right side of the road as a reference.

AVOID HEADLIGHT BLINDNESS BY WATCHING RIGHT SHOULDER OF THE ROAD



For glare from behind you should:

- A. Look to the right side of the road
- B. B. look to the left side of the road.
- C. Use a day-night mirror
- D. Keep you eyes and head up

Film

- Night driving





ROLF STERN
PHOTOGRAPHY



Freeway Driving

- Freeways are multi-lane divided highways with **limited access** from other roads.
- ***Why are they called limited access?***
- You can safely travel long distances without stopping.



Entering the Freeway

- ***Entry ramps*** short one-way roads that provide access to freeways. At the end of the ramp you will find:
 - ***Acceleration lanes*** allow you to increase your speed to safely merge on the freeway.
-

- **Do not stop** on the ramp or acceleration lane unless ABSOLUTELY necessary.
- ***When an acceleration lane is not available***, and a “**Yield” sign** is posted on the entry ramp, obey the sign.

Stop, if it is necessary, don't force your way into the lane of traffic



9. MULTIPLE CHOICE. If there is a yield sign posted on the freeway ramp and you cannot find a gap in traffic you should:


a. Wait on the shoulder for an opening.

b. turn on your signal and move your vehicle to the left.

c. Wait on the entrance ramp until you see an opening and accelerate

d. Drive on the shoulder of the road until the traffic yields.

Tips for merging safely

- 1. Signal as you approach the acceleration lane.
 - 2. Pick up your speed to match the speed of traffic.
 - 3. Make a *head check* before you merge into the traffic lane.
 - 4. Move carefully into the nearest traffic lane.
Avoid disrupting traffic flow or “*cutting off*” other drivers.
 - Try to adjust your speed to accommodate vehicles already on the freeway.
 - 5. Slower traffic should use the right lane on freeways.
- 

10. If you are driving at a slower speed than other traffic, stay in the lane nearest to the right side of the road.

(See page 30) Right-Hand Lane Travel

ENTERING AND LEAVING FREEWAY

SIGNAL, LOOK AND
MERGE INTO
TRAFFIC STREAM

ADJUST TO FREEWAY
SPEED IN THE
ACCELERATION LANE

ACCELERATION LANE

ON RAMP

TRAFFIC FLOW

MEDIAN STRIP PLANTING

TRAFFIC FLOW

DECELERATION LANE

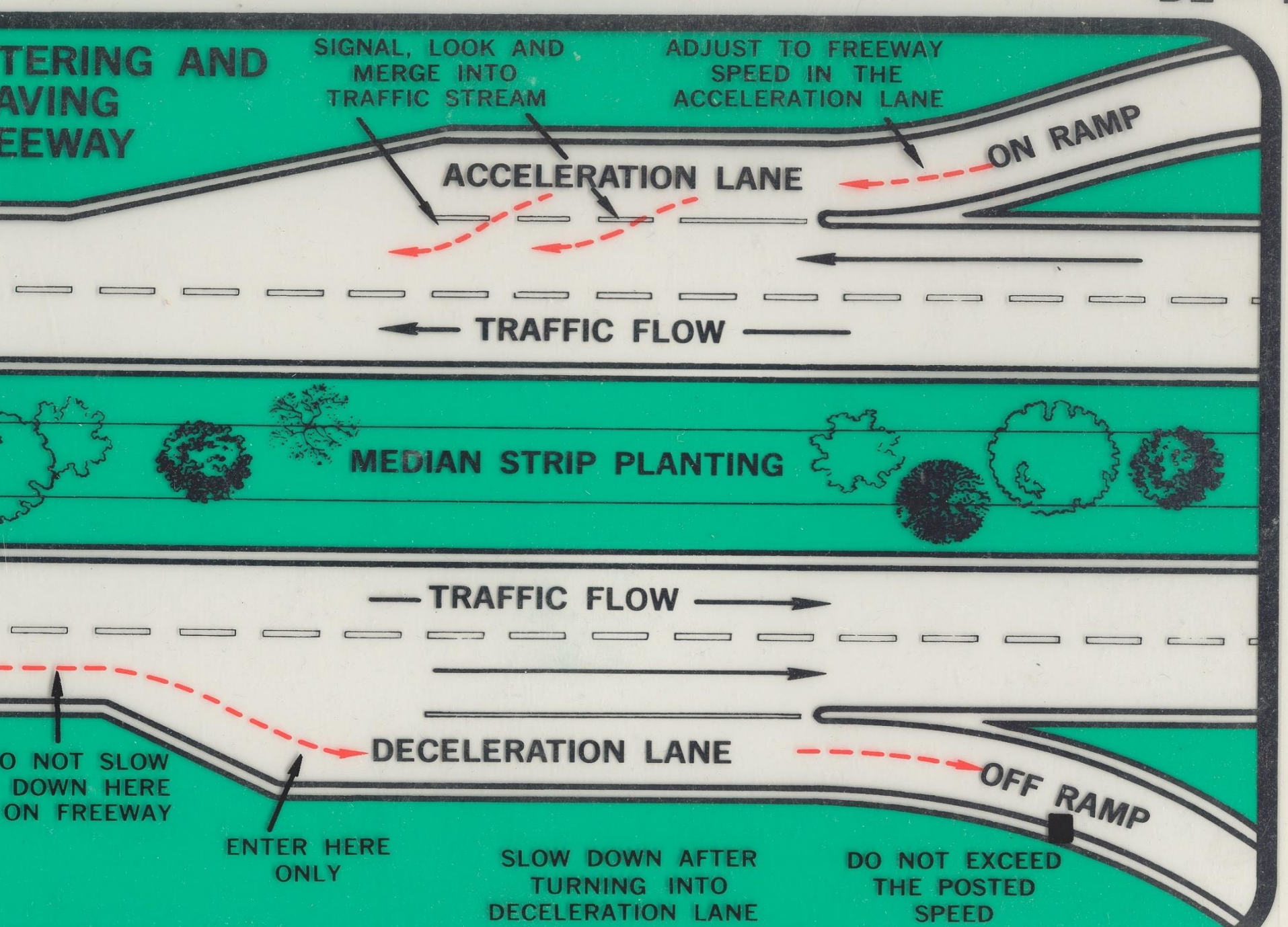
OFF RAMP

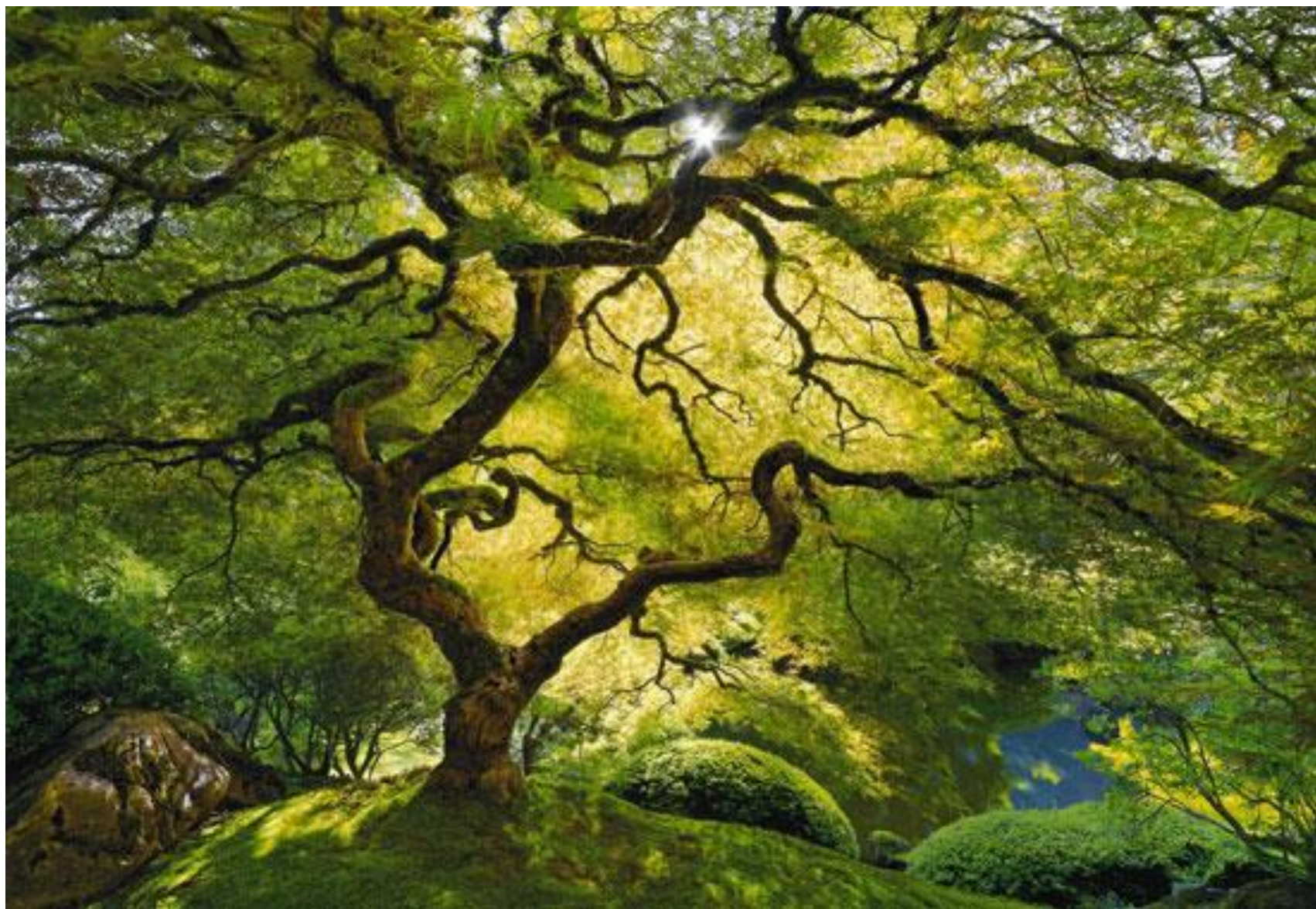
DO NOT SLOW
DOWN HERE
ON FREEWAY

ENTER HERE
ONLY

SLOW DOWN AFTER
TURNING INTO
DECELERATION LANE

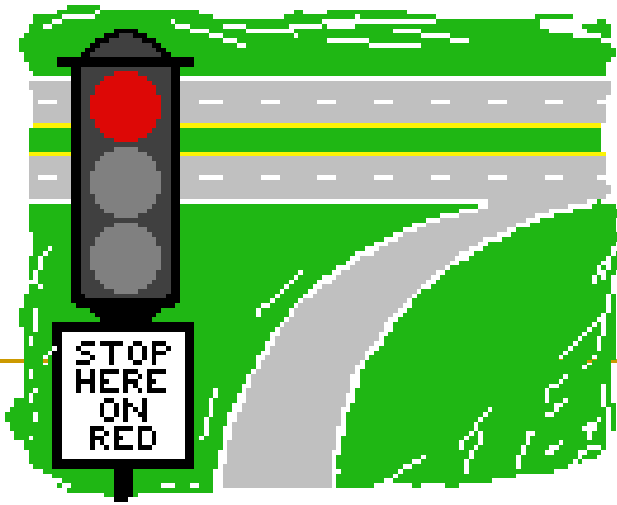
DO NOT EXCEED
THE POSTED
SPEED





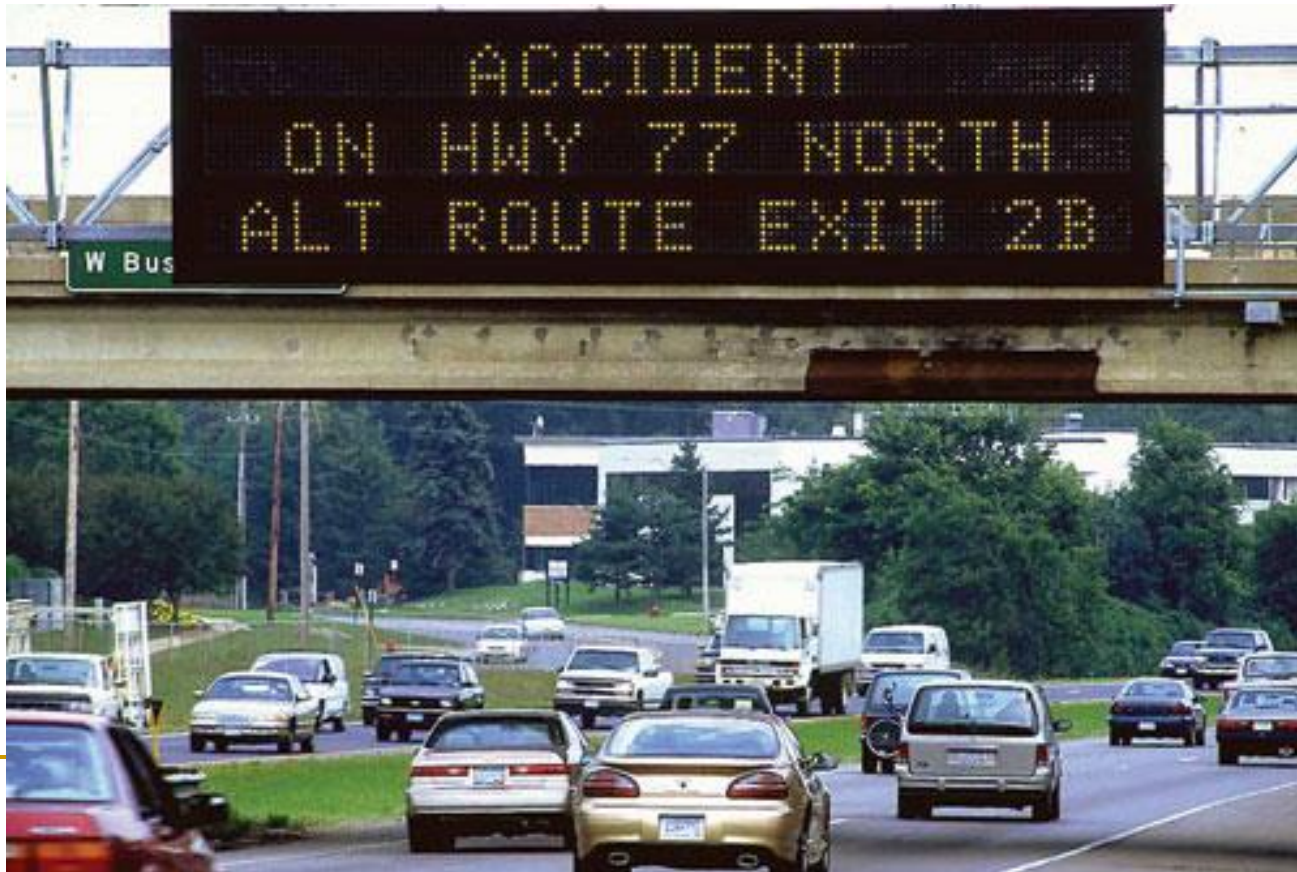
Freeway Ramp Meters & Message Boards

- **Ramp Meters** - They are found in the metropolitan area to reduce **traffic jams, crashes and make merging safer and easier.**
- They look like a traffic signal on a short pole.
- They are activated during peak travel hours.
- Going through on a **red light** is illegal



48-49. Message and Lane Use Signs –on some freeways warn of accidents, stalled vehicles, and traffic conditions.

48-49 accidents & stalled vehicles



89. Transit buses and Metro Mobility buses are permitted to use the shoulder of a freeway or expressway. **TRUE**



Changeable Message Signs



Message signs may be activated when the state issues an **AMBER Alert**

- **A-America's**
- **M-Missing** 50-54
- **B-Broadcast**
- **E-Emergency**
- **R-Response**



- The alert is in response to a child abduction

Freeway Speed and Lane Use.

- Maintain the **same approximate speed** as surrounding vehicles, when possible. But never **exceed the speed limit**.
 - **Slower speed traffic** use the **right lane**
 - **Page 30 Right-Hand Lane Travel.**
 - If you must change lanes or leave the freeway be sure to **signal your intent and make sure your path is clear.**
 - **SMOG**
-

***Over 800,000 blinds spot accident
each year and 300 fatalities***



■ High-occupancy Vehicle Lanes HOV

- These lanes are for use only by **motorcycles, buses, and vehicles with two or more people**

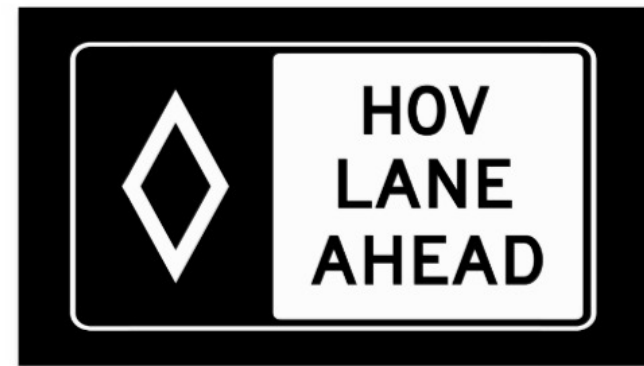


11-13. HOV lanes are for what three types of vehicles?

11. Motorcycles,

12. Buses and

13. Vehicles with 2 or more people

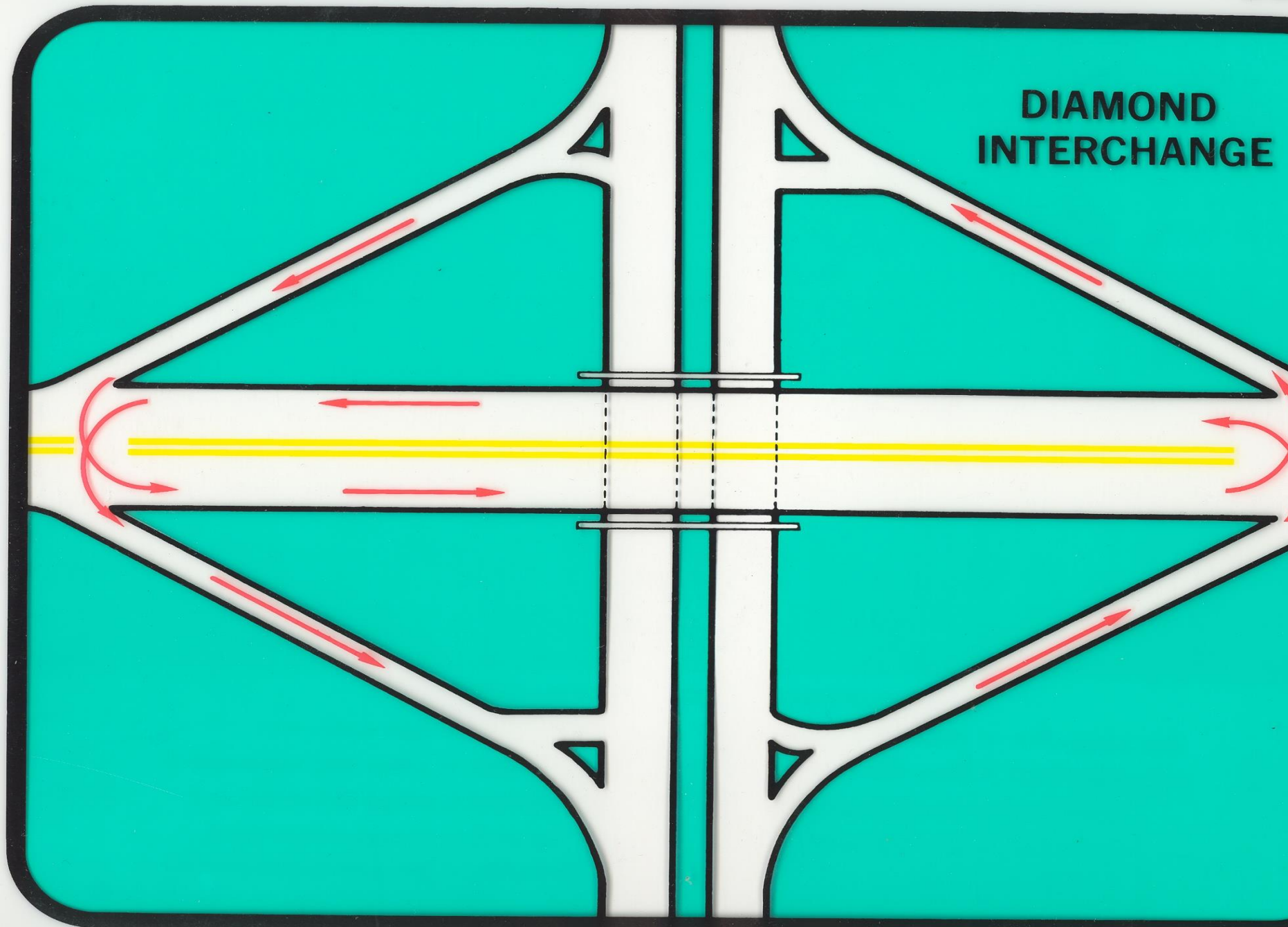


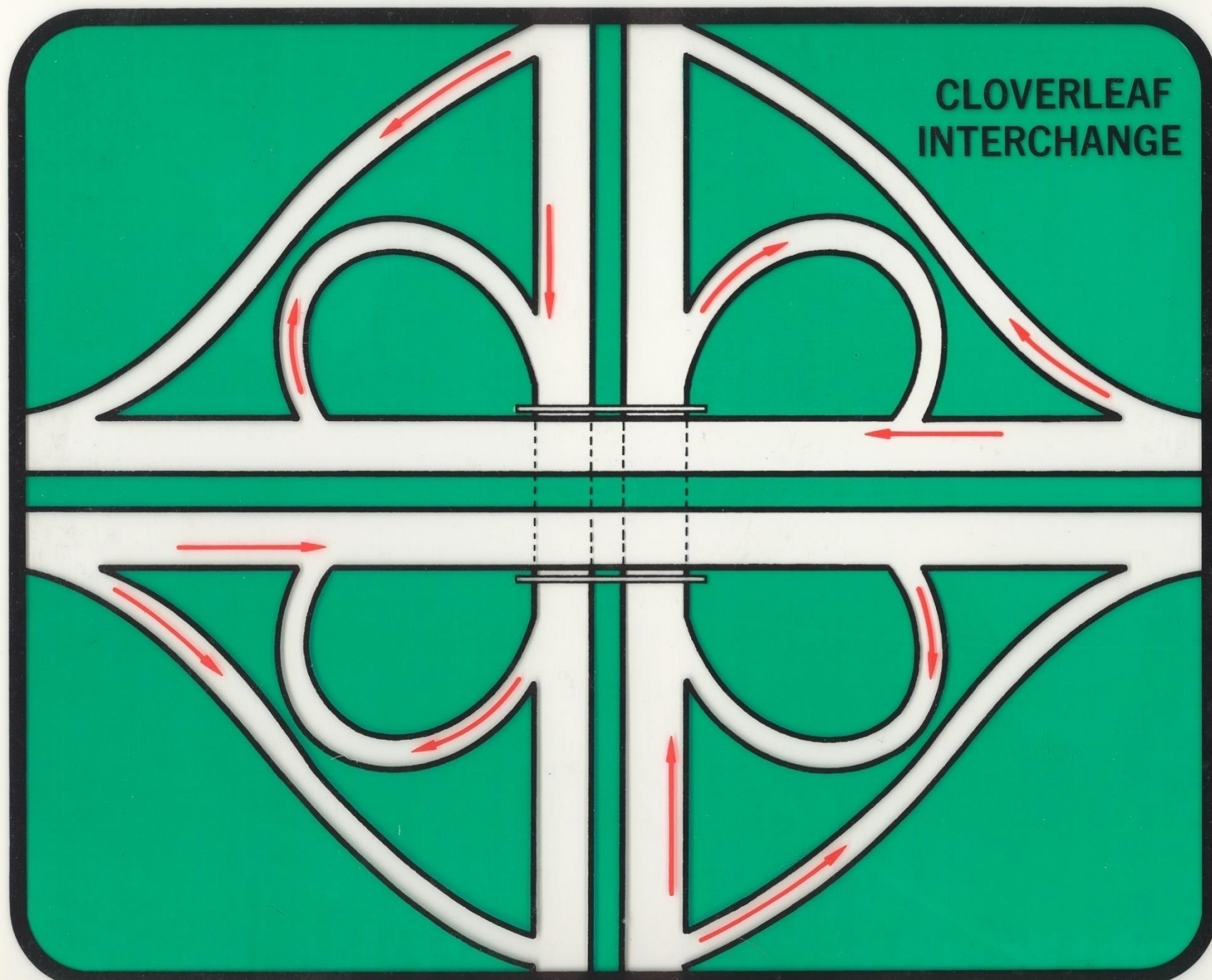
Freeway Interchanges

- An interchange is the connection of a freeway to a road or another freeway by a series of ramps.

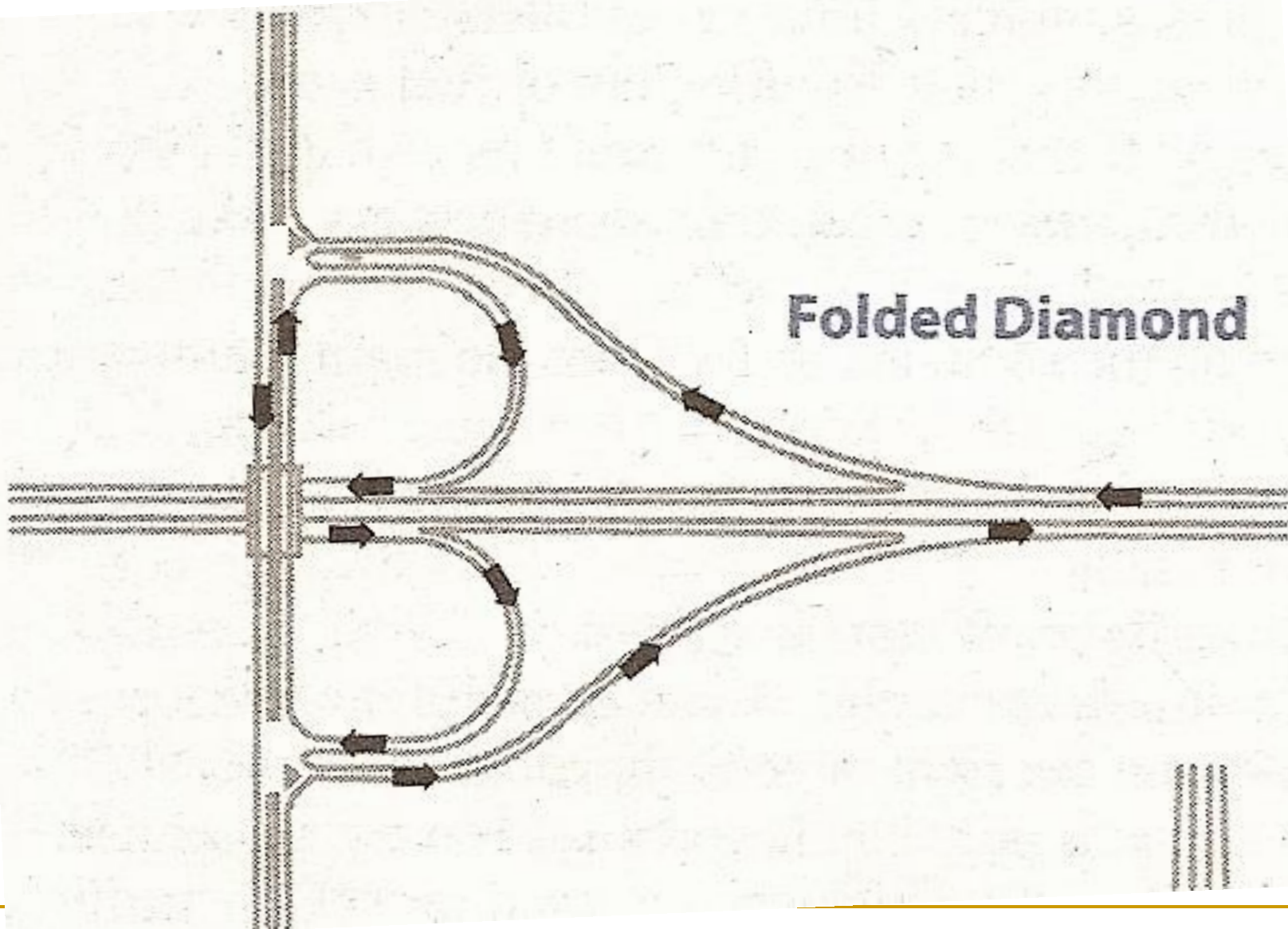


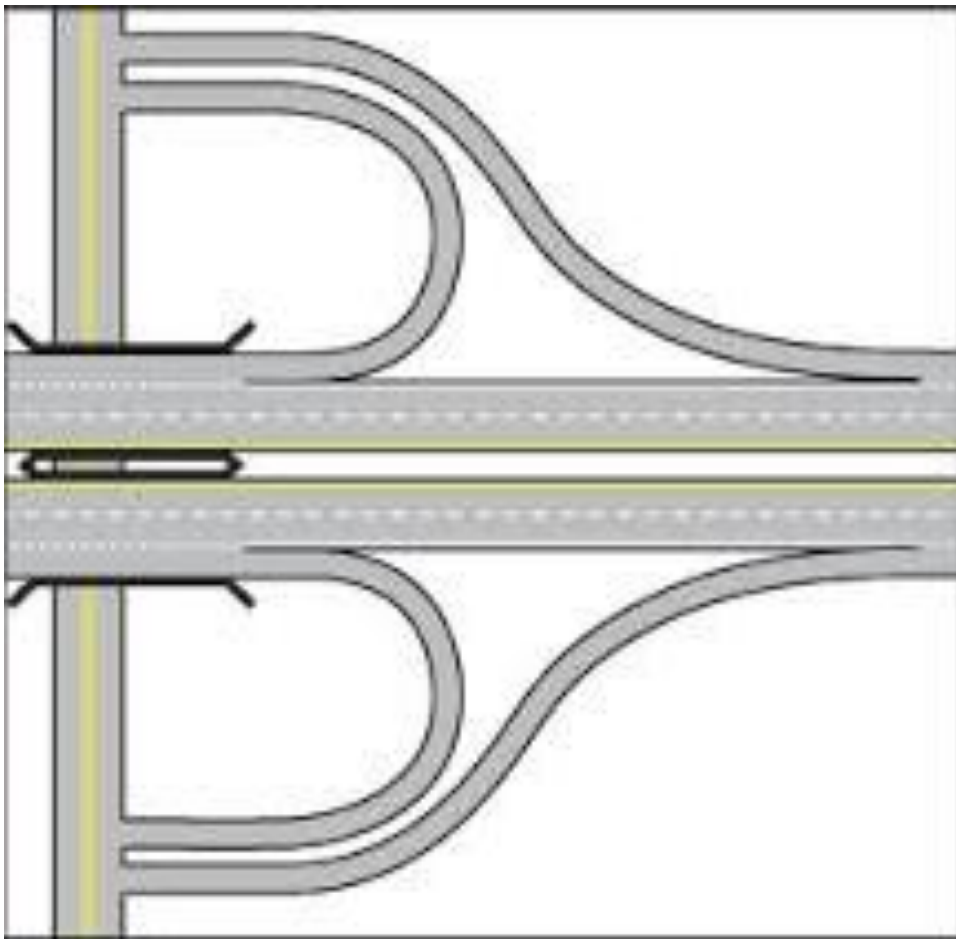
DIAMOND INTERCHANGE





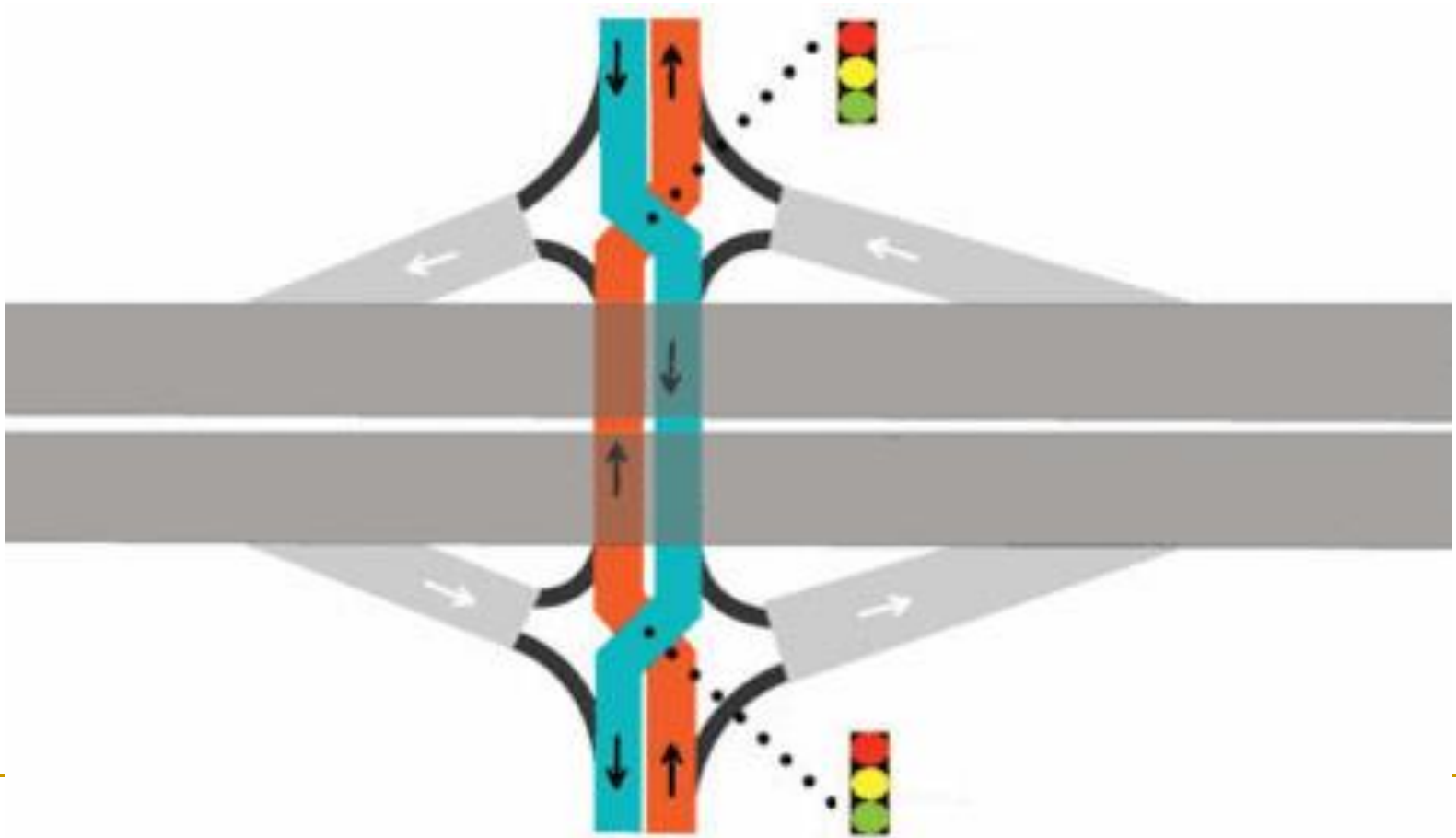
Folded Diamond





diverging diamond interchange

22 playlist



Stopping, Parking, and Backing Up

- It is Illegal to stop or park on a freeway unless it is an emergency. **Running out of gas is not considered an emergency.**



8. TRUE OR **FALSE**. Stopping is allowed on the freeway for any emergency including running out of gas.



If you do break down,

- Park on the **shoulder**.
- **Open trunk or hood**. Tie **white clothe** on antenna or door handle.
- Use **hazard lights** if you have them
- If you have flares or reflectors place then **100-500 feet behind you vehicle** on the right edge of the road.



CONTINUED:

- If possible **stay with your vehicle.**
- If you must leave your vehicle do not walk on the areas reserved for vehicle traffic. **This is illegal and extremely dangerous.**
- It is **illegal** to back up or turn around on a freeway.
- If you are driving an **emergency** or **road repair vehicle** you may back up or turn around to do your job.

55. TRUE OR **FALSE**. If you miss your exit on a freeway, you may pull over and back up to the exit if it is clear for at least 1000 feet.



Emergency Vehicles on the Freeway

- Approaching from behind. **Move to the closest side of the road and stop.**
 - **Don't panic and slam on your brakes or swerve.**
 - **Remember to use your signals.**
 - **Make room for others** who are trying to move over.
 - Remain stopped until the emergency vehicle has passed.
 - You must stay **500 feet behind** a firefighting equipment
-

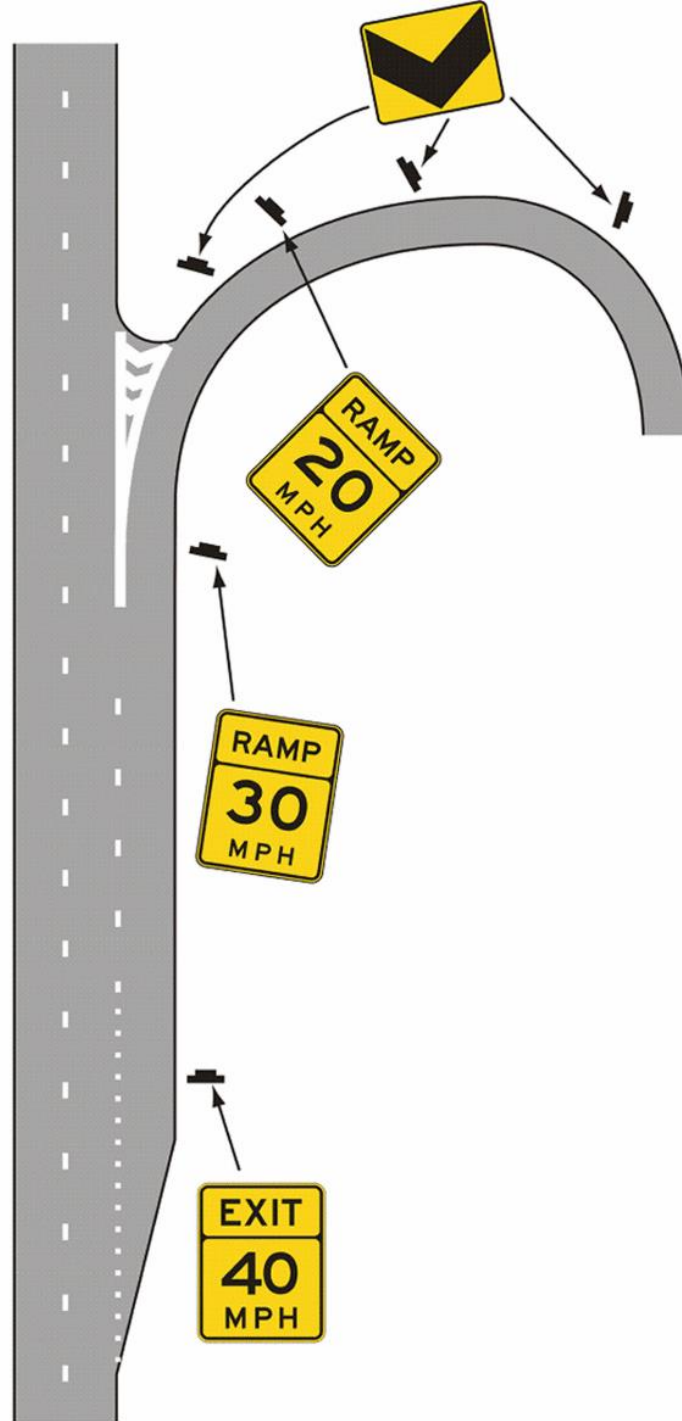
56. **TRUE** OR FALSE. If you are on a freeway and driving in the far left lane when an emergency vehicle approaches with sirens and lights flashing, you can pull over and come to a complete stop on the left side of the road.



Getting off the freeway.

- 1. Plan your trip *(know where you plan to get off)*
- 2. Watch for your exit signs
- 3. Move into the **correct lane**
- 4. **Signal and move into the deceleration lane.** Maintain your speed on the freeway.
- 5. Slow down to the **speed for the exit ramp.**
- If you miss your exit just keep going to the next





Film

- Freeway driving





Crashes

- * If you are involved in a crash that results in injury, stay where you are.
- If you are able to do so call 911
- If crash results in only property damage move to a safe spot and exchange information.
- Do not step out of your vehicle until you have moved to a safe location.



Exchange:

- **Driver's license information**
- **Insurance information**
- Write down the **license plat number** of other vehicles involved
- You may also exchange vehicle identification numbers
- Call for **law enforcement assistance**, if necessary



Distracted Driving

- Driver **inattention or distraction** is one of the most frequent cited cause of multiple-vehicle crashes.
- Drivers who are distracted **fail to recognize potential hazards on the road and react more slowly to traffic conditions, decreasing their margin of safety.**



28. TRUE OR FALSE. Distracted drivers are dangerous only to themselves.

29. Inattention or distraction inside the vehicle can include activities such as cell phone use, using a GPS, reaching for items, eating and drinking, adjusting the radio, talking to other passengers, and reading maps and other materials.



83-84-85

There are three main types of driver distraction:

83. Visual – looking away from the road.

84. Mechanical/Physical – taking hands off the wheel.

85. Cognitive – being “lost in thought.”

86. Driver distraction or inattention is a leading factor in crashes in Minnesota, accounting for at least **25 percent** of all crashes annually.

Certain driver behaviors are illegal in Minnesota:

- Cell phone used for texting e-mailing and internet, including when stopped for traffic.**
 - Drivers under 18 using a cell phone whether hands free or not**
 - Wearing head phones or ear buds in both ears simultaneously**
 - Refrain from using headphones, ear buds, or MP3 players in a way which could distract you from driving safely.**
-

87. It is legal to use a cell phone to text if you are stopped in traffic. **False**



What you can't see can hurt you.

put down
www.distracted.gov

-Eating & drinking



-Cell phone use





**WAS THAT TEXT MESSAGE
THAT IMPORTANT?**



Even when you are watching the road,
behaviors such as looking at a crash scene, or even
daydreaming, can divert attention from your
responsibility as a driver.

**Make sure you give the task of driving your full
attention.**

**You may not wear head phones or ear buds in
both ears simultaneously while you are driving.**





30. TRUE OR FALSE. You can use headphones when you are driving if you only have the volume on low.



Aggressive Driving

- People who drive aggressively tend to have low levels of concern for other motorists
- **They exhibit anger and frustration while driving**, not necessarily as a result of other drivers' action, but because of their **personal mind set.**



Aggressive driving usually involves driving *faster than surrounding traffic.*

This can lead to:

- Following too closely**
 - Changing lanes frequently & abruptly**
 - Passing on the shoulder**
 - Glaring at or threatening motorists around them.**
-

If you recognize your **own behavior in this description**, you should make a greater effort to stay calm when you drive.

It is important to share the road



57-58. Safe driving requires **courtesy and **cooperation** from all drivers**

57-58 – courtesy & cooperation



ROAD RAGE

Every time you honk your horn, an angel gets to fart.

If you are confronted by an **aggressive driver:**

- Stay out of the person's way
- Do not challenge him or her
- Avoid eye contact
- Do not allow the situation to escalate



Film

- Distracted driving
 - Motor mania
 - Road rage
 - Just drive
 - NRSF speed & aggression tool kit
-

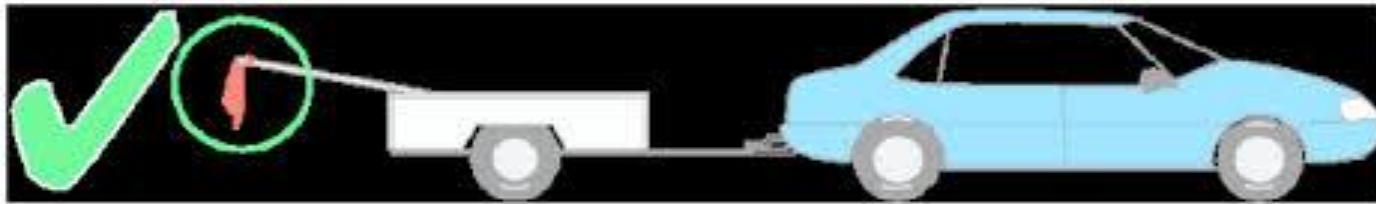
Obstructed view

- It is illegal to **impair the vision or control** of the driver.
- Illegal to have more than **three in the front seat**.

14. TRUE OR FALSE. If you have more than three people in the front seat of a vehicle you must share seat belts?

Carrying a Projecting Load

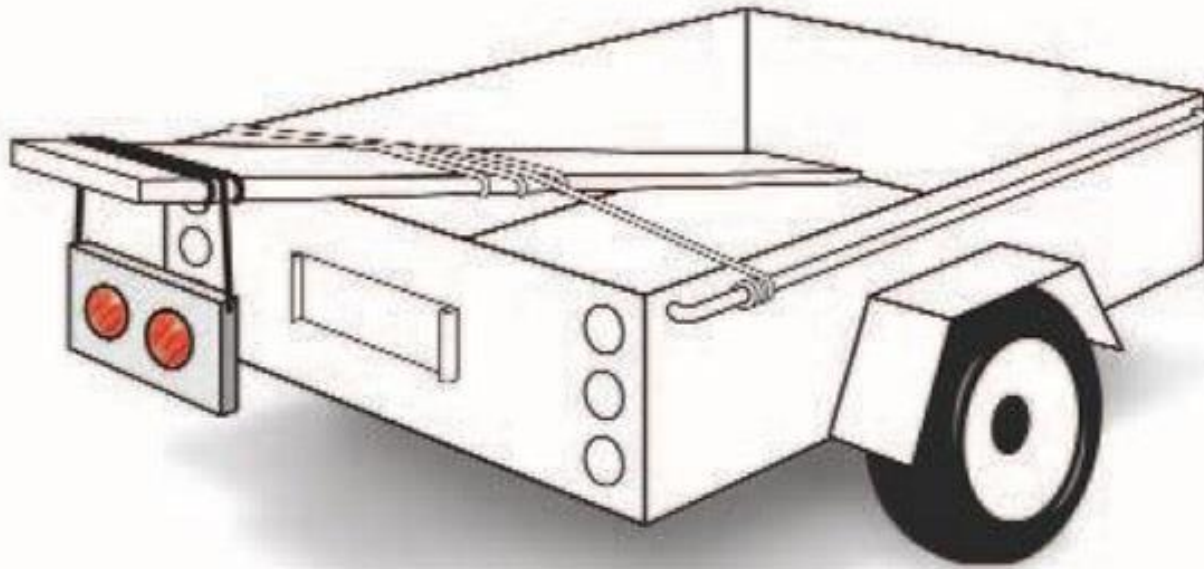
1. Loads **3** feet in front
2. **If more than 4 feet to the rear 16 sq.-inch red -yellow-orange flag.**
3. **Red light at night**(light) must be visible for 500 feet
4. **6 inches** on the right
5. **Fender line** on the left



15-18. A load must not stick out more than (15) **3** feet to the front, (16) **6** inches to the right side, (17) **0** inches to the left side, and if over (18) **4** feet in the rear must have a lamp or flag.



- If a load stick out more than 4 feet to the rear of your vehicle **and you are driving at night** you must attach a **light or lamp visible for 500ft)**



90. TRUE OR FALSE. If a load stick out more than 4 feet to the rear of your vehicle and you are driving at night you must attach a 16" X 16" red, yellow, or orange flag to the back of the load.

You need a red light or lantern at night.





Campers and Trailers

- You must maintain a **500 foot** following distance
- **10-15% of the weight is on the trailer hitch**
- The floor should be **level**
- After the **first few miles** check hitch, tires, lights, and load.
- Drive slower.
- **A sudden stop at high speeds can flip the trailer and car**

- Remember the extra length when turning & passing
- Check for tunnel restriction (bottled propane)
- Wind & rain can affect the handling
- Allow plenty of room for turns
- Pay attention to your cooling system

59. If you pull a camper or trailer with your vehicle you must maintain at least 500 feet of following distance from other vehicles.



Trailer Requirements

- Maximum length -- **45 feet**
- Maximum width -- **8 feet 6 inches –**
- **102 inches**
- Maximum height – **13 feet 6 inches**

Lights



19-20. Your trailer must not exceed 8' 6" width and 45 feet in length.

(19 – 20) 8'6" & 45'



- Tail lights – two, red
- Reflectors – two, red
- Rear license plate light – one, white

Stop and turn signals – at night and when the towing vehicle's are not visible



21. MULTIPLE CHOICE. A trailer must be equipped with:

a. lights, license, and safety chain.

b. two snowmobiles (Polaris)and two four-wheeler (Polaris).

c. lights, license, mud flaps and fenders.

d. lights, safety chains, and trailer brakes.



The width of a trailer can not extend past the (Side view mirror) **external rear view mirror** of the towing vehicle.



Motor homes may not be longer than 45 feet

All trailers with a GVW of 3,000 lb or more must be equipped with brakes

Must have clearly visible plates and current registration

Safety chain must be permanently attached to the trailer and fastened to the vehicle used for towing.



Recreational Vehicle Combinations

- Fifth-wheel camper-semi-trailer with trailer hitched to it
- The trailer may carry:
 - Water craft
 - Motorcycle
 - Snowmobile
 - ATV
 - Golf cart
 - Equestrian equipment or supply



You must be **at least 18** to drive this recreational combination .



60. If you are driving a pick-up truck attached to a fifth-wheel camper that is hitched to a boat trailer, you must be at least **18 of age to legally drive.
(Recreational Vehicle Combinations)**



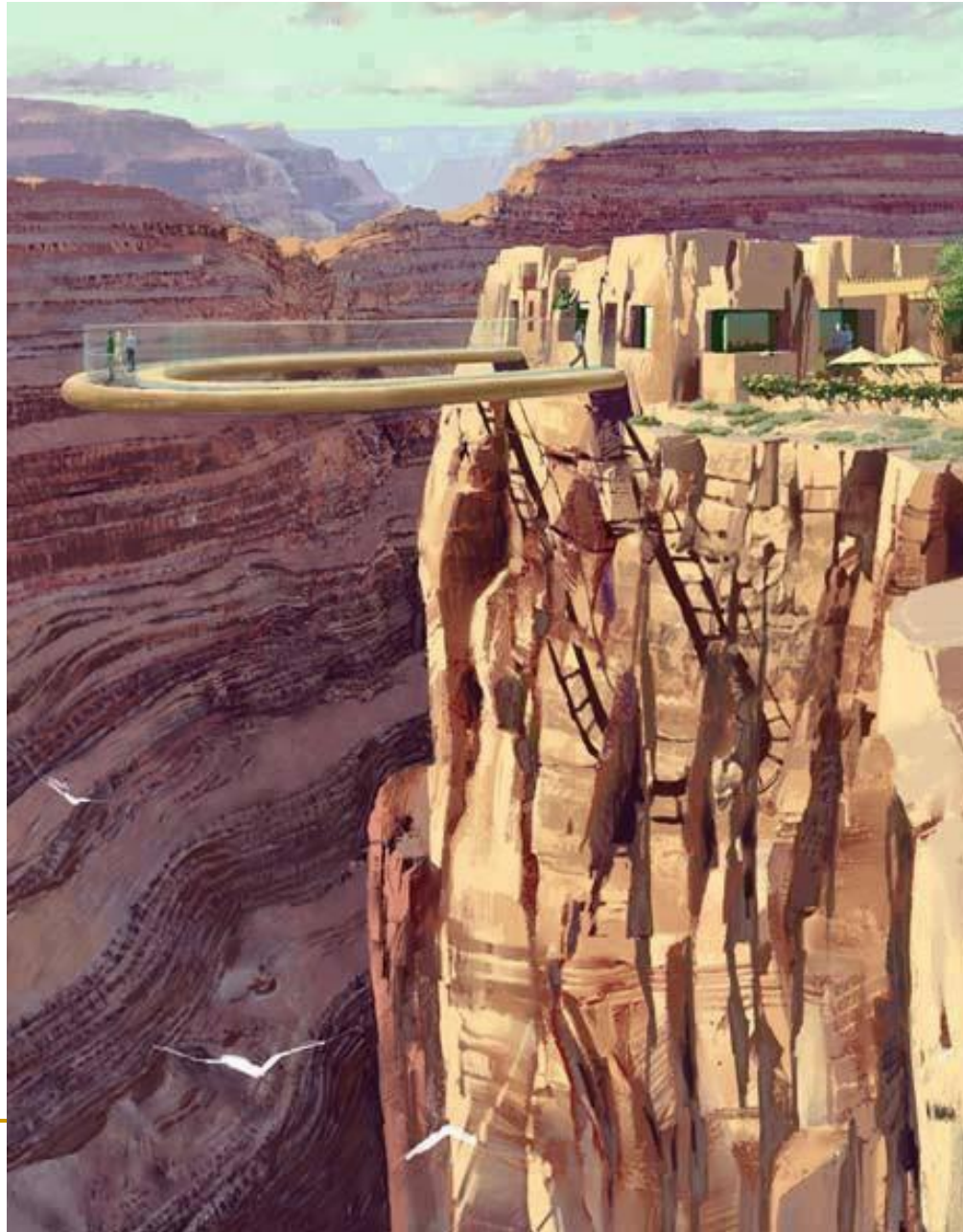
No driving in the 7 county metro area during rush hour
(M-F 6a.m.-9a.m. and 4p.m. -7p.m.)



28 feet



Total of 70 feet



Winter Driving - Vehicle Safety

- Remove **snow and ice** from hood, windows, and lights
 - Make sure windshield fluid has **antifreeze** in it.
 - Get the **feel** of the road.
 - Adjust speed to road conditions
 - Avoid using **cruise control on slippery roads**
-

61. Your windshield wiper fluid should contain **antifreeze** in winter driving.

22. **TRUE** OR FALSE. You should not use your cruise control on slippery roads.



62 - Rocking

62. If your vehicle gets stuck on ice or snow, try to free it by “rocking” back and forth.

Keep the wheels straight and slowly drive forward, then backwards as far as possible without spinning the tires.

Accelerate gently when tires grip

If your vehicle starts to slid or your tires spin, apply the brakes and repeat the operation in the opposite direction

Snow Emergencies and Parking Rules

- When a significant amount of snow falls, city officials may declare a **snow emergency**. **Certain parking rules** may go into effect while snow is being removed.
- Obey snow emergency parking rules to avoid towing and fines.



Snow Removal Equipment

- Snow plow accidents are common.
- Most accidents occur when **the car hits the snow plow.**
- Watch for the flashing lights
- Stay well behind to avoid any flying sand material or snow and ice.
- They may have to turn around to do their job. **Give them room to work**

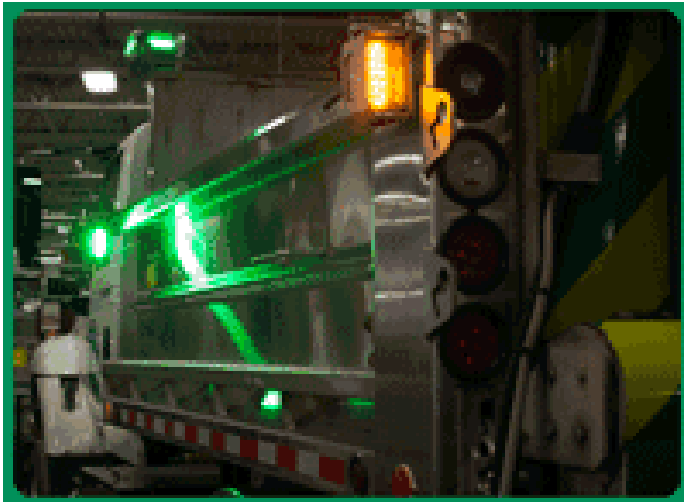


Courtesy: David G. Cushman/Dallas News Service



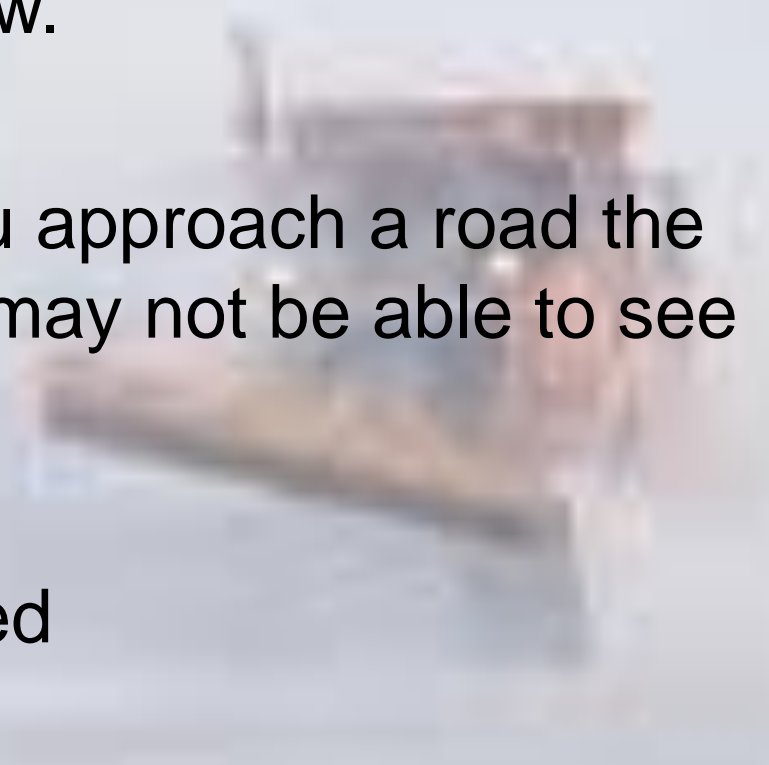
23. When roads are covered in snow or ice, watch for the white, yellow, and blue lights of **snow plows**

63. Never crowd a **plow.**



Snow Removal Equipment

- Be alert for snow clouds and white outs caused by the plow.
- Remember as you approach a road the snow plow driver may not be able to see you.
- Reduce your speed



A photograph of a narrow, snow-covered mountain road. The road is flanked by steep, rocky cliffs covered in snow. In the distance, a small dark car is visible on the road. The sky is overcast and grey.

Winter Survival

KEEP A SURVIVAL KIT IN YOUR VEHICLE:

- 1. Shovel**
- 2. Container of sand or salt**
- 3. Warm cloth and footwear**
- 4. Red flag**
- 5. Blanket or sleeping bag**
- 6. Quick energy food, drinking water, and an empty waste container**
- 7. Tow chain/rope and tire chains**
- 8. Road flares or reflectors**
- 9. Jumper cables**
- 10. Candles and matches or a lighter**
- 11. First aid kit**

64. Which of the following does the book not include in it's recommended winter survival kit?

shovel container of salt

green flag

blanket jumper cables

quick energy food



Snowbound

- Stay with your vehicle. Most deaths occur when people leave their vehicle and get lost.
- Turn on hazard lights
- Attach a **red flag** to antenna or door handle
- Bring all survival gear into the car
- Warm vehicle properly
- Leave a window open
- Keep moving

24. If you become snowbound it is best to leave the vehicle and walk for help. False

Film

- Ready set winter
 - Bad weather driving
 - Anatomy of a winter storm
-

Maintain Alertness and Concentration

Becoming tired or sleepy while driving is a common, yet **very dangerous occurrence.**

To prevent this get plenty of sleep before starting out on a long trip



To maintain alertness and concentration:

Stop as often as you need, at least every **100 miles or two hours**

- If you have passengers talk in order to keep alert
- If you feel tire ask someone else to drive



65-66. The manual recommends that you stop at least every (65) 100 miles or (66) 2 hours when taking long trips.



If weather permits open the window and get some **fresh air**, do not depend on stay-awake drugs

If you are alone **listen to the radio and sing along**

If you are still **tired stop and get some rest.**

If you stay in your car lock the doors and **open windows slightly to get fresh air.**

Drowsy Driver Deterrent

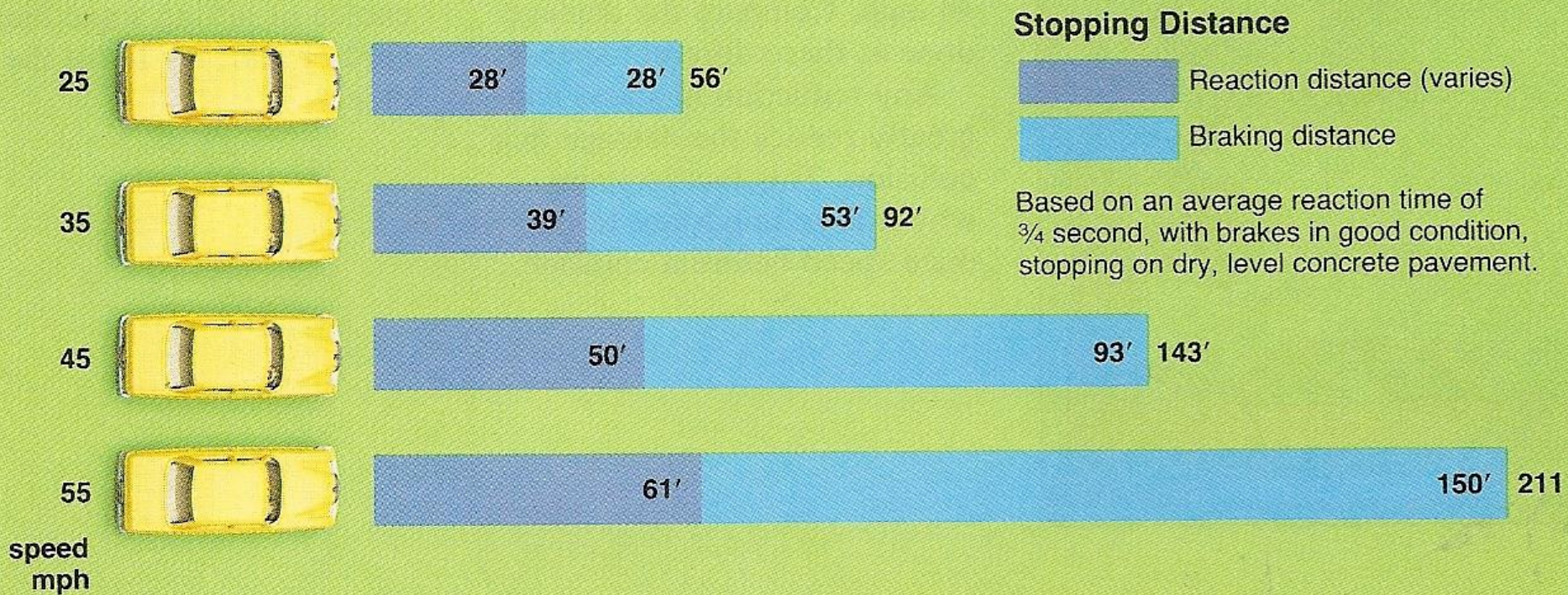


If you feel tired while driving the best thing you can do is:

- A. Drink some coffee**
- B. Open the window and get some fresh air.**
- C. Listen to the radio and sing along.**
- D. Stop and get some rest**

Stop and get some rest





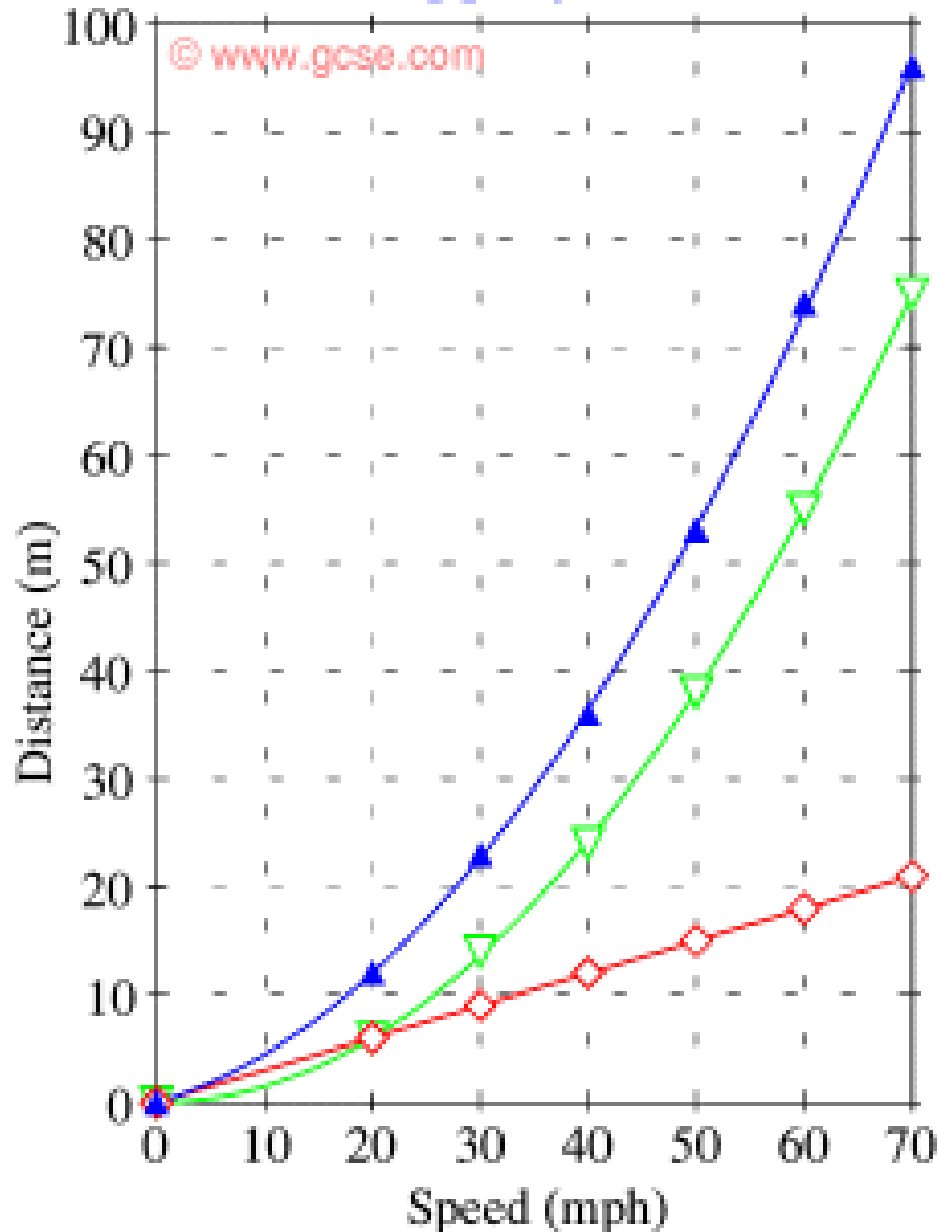
Based on an average reaction time of $\frac{3}{4}$ second

The total stopping distance of a vehicle is made up of 4 components.

- **Human Perception Time**
- **Human Reaction Time**
- **Vehicle Reaction Time**
- **Vehicle Braking Capability**



Thinking, Braking and Stopping Distances



If you double your speed it quadruples your stopping distance

Factors that affect actual Stopping Distance 43 -47

43. The time it takes to see and recognize

44. The length of time from perception until
using the brakes

45. Weather conditions

46. Condition of the tires

47. Type and condition of brakes

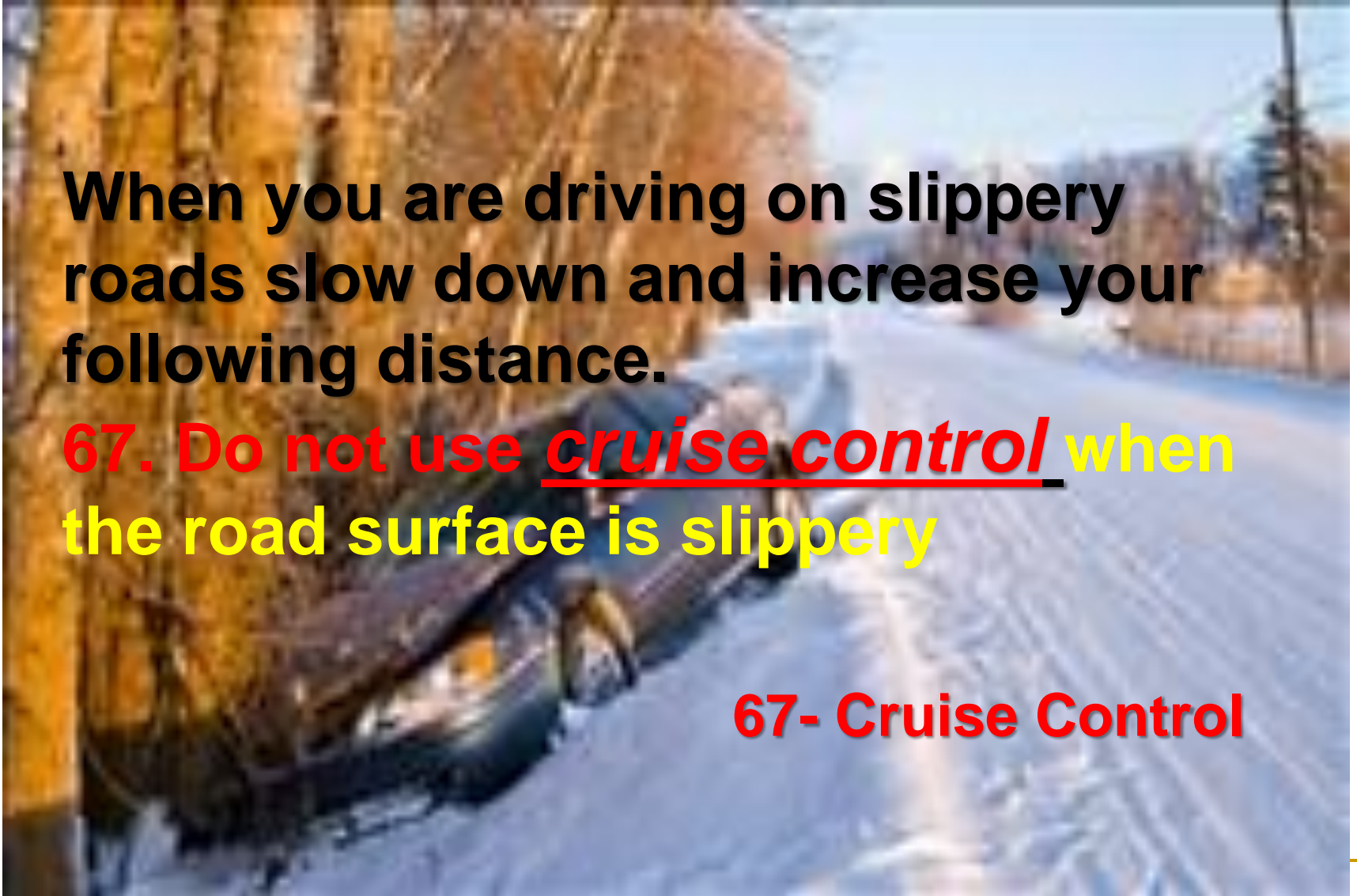
Loads

Skidding

When you are driving on slippery roads slow down and increase your following distance.

67. Do not use cruise control when the road surface is slippery

67- Cruise Control



If you begin to skid:

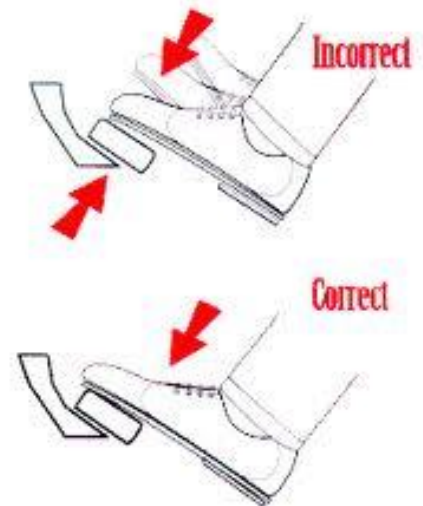
- Keep calm and **do not overreact**
- **Don't** slam on your brakes
- Keep the **front** of the car going where you want the car to go.
- **Stay off** both brake and accelerator until you have gained control



**Rule 119: Rear of the car skids to the right.
Driver steers to the right**

Stopping on Ice with Anti-lock Braking System

- ABS Four wheel anti-lock brakes **push on brake pedal and don't let up and continue to steer.**
- Do not pump the brakes
(You-tube crashes on ice)
Video driving on icy roads



68. If you are in a skid with anti-lock brakes, how should you use the brakes?

- push on brake pedal and ***don't let up and continue to steer.***



anti-lock brake system



agcoauto.com



Driving in Heavy Rain and Fog

- If you encounter a heavy thunderstorm or fog:
 - **Slow down**
 - **Use extra caution**
 - **Be prepared to stop**
 - **Increase** your following distance



Turn on head lights when you cannot see for 500 feet, when it is raining, snowing, sleeting or hailing.

69. Minn. Law states that you must have your headlights on when it is raining. True



Accident caused by foggy conditions

Keep you headlight on low bean to reduce glare.

If you cannot see for a safe distance pull to a safe place and stop



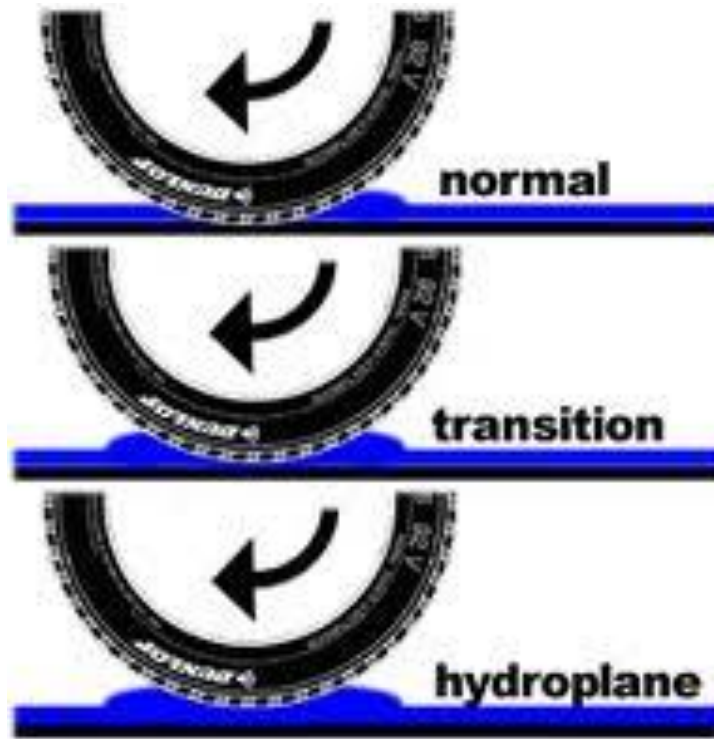


Hydroplaning

- At higher speeds water can collect under the tires and lift them off the surface of the road – This is called **hydroplaning**.

25. Excessive speed on wet roads causes the vehicle to Hydroplane. True

- **(Start hydroplaning at 35 mph)** and at **55** your tire could lose complete contact with the road.



Remember: Hydroplaning can occur at any speed if the water depth is greater than the depth of the tire treads.

What should you do when you hydroplane?

- You will be unable to brake , accelerate, or change directions.
- If your vehicle begins to hydroplane, **take your foot off the gas pedal.**



Hydroplaning

- Your best defense is:
 - **Good tires** with deep tread and proper inflation
 - **Slow down** on wet roads
 - **Drive in the tire tracks** of other vehicles
 - Deep tire treads allow water to escape from under the tire and prevents the tire from losing contact with the road.
-

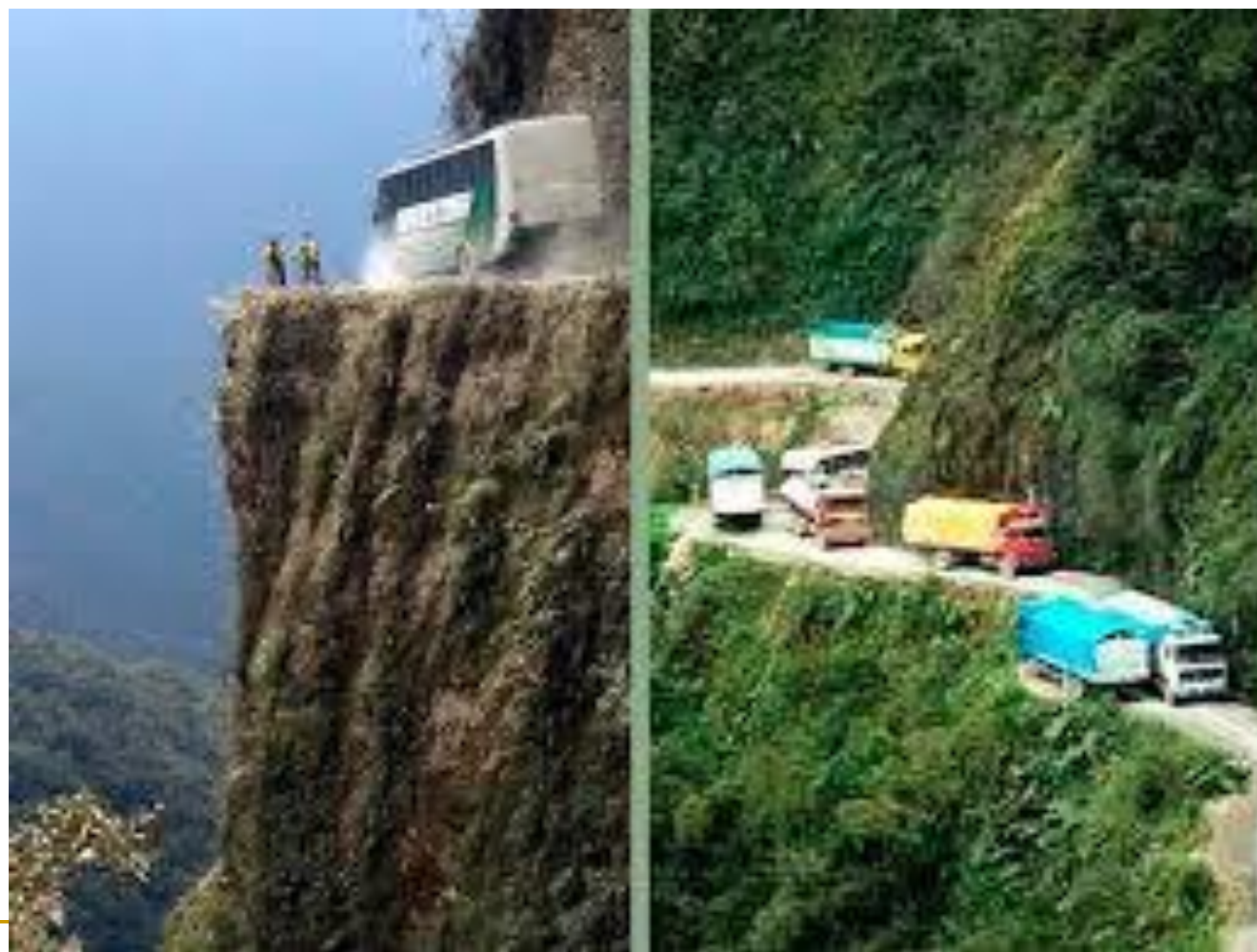
Film

- Get a grip
- Too sleep to drive

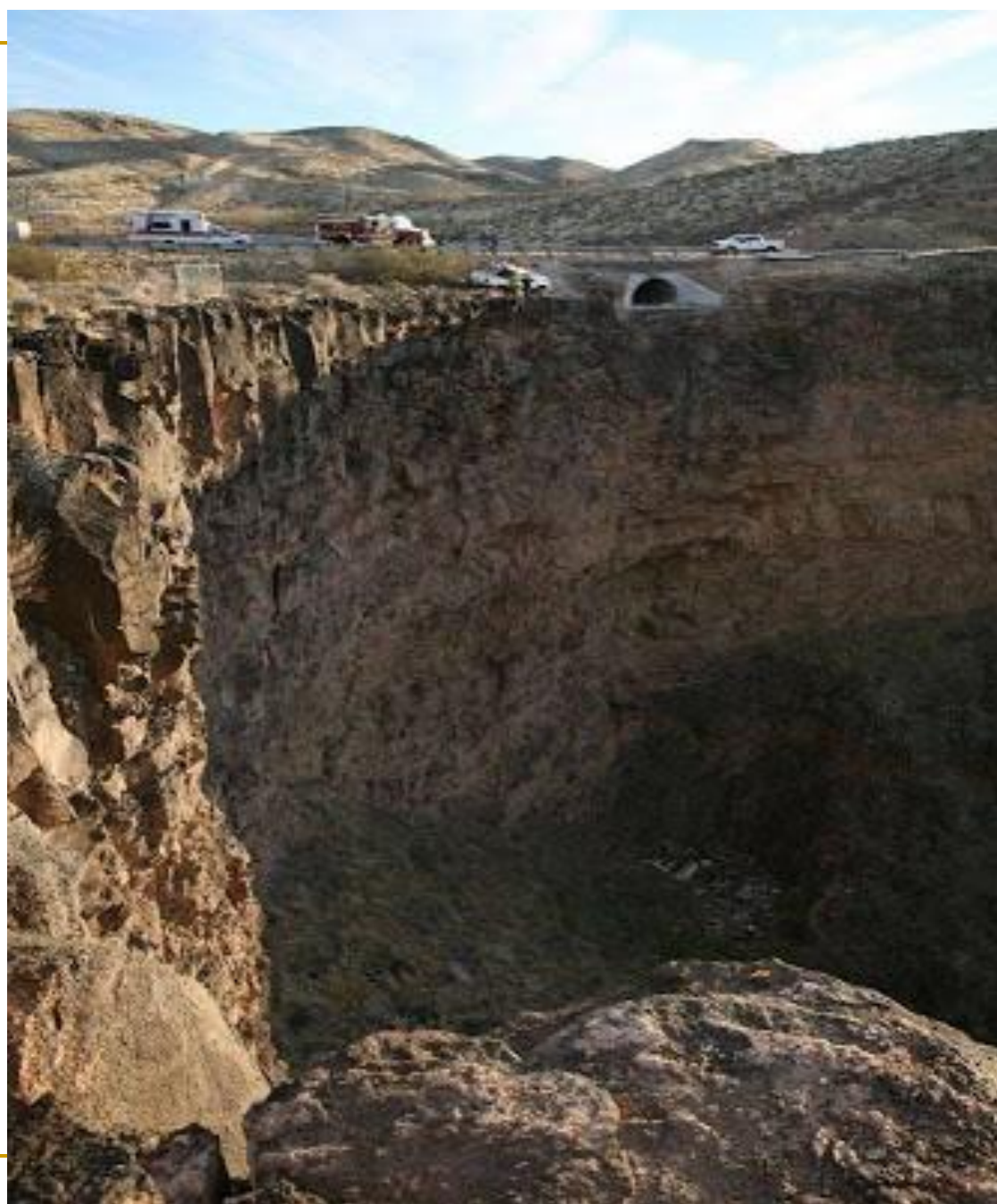


Driving on Narrow Roads and Hills

- You may not be able to see other cars until you are a few feet away.
- Use your **horn** to warn people they are not alone on the road.
- It is **illegal to coast down a hill** with your transmission in neutral
- On steep down grades **check your speed** frequently







70. TRUE OR **FALSE.** To increase your fuel economy it is recommended to put your vehicle in neutral and coast down hills.



Blowouts

You may hear a thumping sound or feel the car pull to the right or left

- Hold tightly to steering wheel
- Steer straight
- Ease off the accelerator
- Stay off the brake until you are under control


26 –When you encounter a tire blowout you should immediately lock up the brakes and steer toward the ditch. False

71 – What noise may indicate that you are about to have a blowout? A thumping sound



Steering Failure

- **Ease off** the accelerator and stay off the brake.
- **Do not brake** unless it is necessary to avoid a crash.
- As vehicle slows you may be able to **brake gently** and bring the car to a stop.
- If you brake suddenly or change gears the change in speed **may throw the vehicle off balance and out of control.**

A photograph of a blue Toyota truck that has rolled over onto its side in a dry, open field. The truck is positioned on a dirt path or road, with its wheels pointing upwards. The surrounding landscape is a flat, grassy field with some sparse vegetation. In the background, there are low mountains under a clear sky. The text is overlaid on the bottom half of the image.

Eighteen-year-old Levi Stewart of Idaho died when his Toyota truck rolled over. Levi's father, Michael, attributes the crash to a defective steering rod and has sued Toyota for product liability and failure to warn.

Brake Failure

- Advanced warning
- 1. Pedal feels **spongy**
- 2. **Warning light** comes on

- What to do:

72 —What should you do if your brake pedal sinks all the way to the floor when trying to slow down your vehicle?

- **Pump brakes**
- **Emergency brake**
- **Down shift**

pump the brakes

Running off the Pavement

- **Stay on the shoulder** and slowly release the gas pedal.
- Once you have reduced your speed turn back onto the pavement.
- **(do not try to swerve back onto the pavement)**



Watch Out for Deer

- Deer are most active in the **DUSK to DAWN** hours.
 - Scan the sides of the road at night to watch for the **reflection** of your vehicle headlights in the **eyes of the deer**.
 - If you see such a reflections **SLOW DOWN.**
Blow the horn and be ready to stop.
 - **Watch for more than one deer**
 - **Deer may cross anywhere, anytime**
-

Anywhere - Anytime



Vehicle Approaching You in Your Lane

- Pull right & slow
- Honk your horn or flash your lights
- Move to the right not the left.

73 – If a vehicle is approaching in your lane, what direction should you steer?
steer to the right

Vehicle Trying to Pass You

- **Maintain** your speed.

If the driver misjudges the speed of oncoming vehicles you and the other drivers are all in danger:

- If they are at the point of no return. **Slow down**
- If they are trying drop back. **Speed up and move right**
- If a crash is almost certain. **Move to the right shoulder**



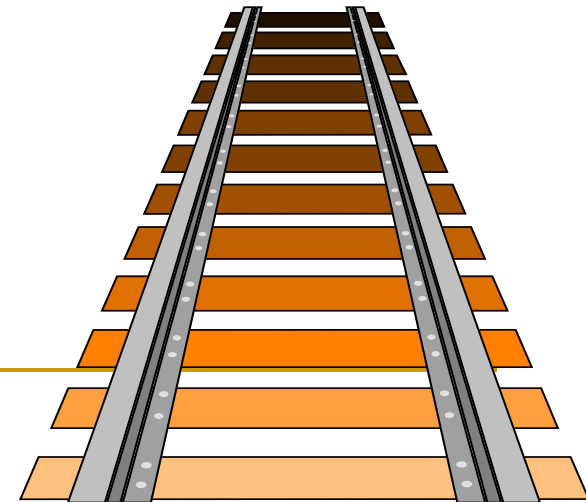


Stalled on the Railroad Tracks

- Get out and **walk toward the train** as you keep a safe distance from the tracks.

74 –If your vehicle is stalled on the tracks and a train is approaching, you should leave your vehicle and walk in the direction of the train.

True



Flooded Roadways

- Flooding can occur when:
 1. Streams & rivers flow over their banks.
 2. When dams or levees break.
 3. Run-off from deep snow or heavy rain.

Floodwaters can be found on:

1. Roads
2. Bridges
3. Low areas

They can occur in a few minutes or hours of
excessive rain fall



WHEN
FLOODED
TURN AROUND
DON'T
DROWN

Information you should know about flooding roads

1. **Do not drive through flooded areas.**
 2. **Be cautious, especially at night, when the visibility is limited.**
 3. **Remember 6 inches of water can reach the bottom of most passenger cars, causing loss of control or possible stalling.**
 4. **Two feet of water can carry away most vehicles.**
 5. **Even if the water appears shallow enough to cross, do not attempt to cross a flooded road. (their could be dips or the roadway may be washed away)**
 6. **If there is no other route, proceed to higher ground and wait for the water to subside.**
-



Plunging Under Water

75 — How long will most vehicles float if plunged into water?

- Most vehicles will float for **30 to 60 seconds**
 - Don't panic
 - Find the air-pocket in most car it will **be in the back**
 - Escape through the **window**
 - **When the car is filled with water the doors will open**
 - If others are in the car try to **exit together**
-

76 –Does the front or back of a vehicle sink first if plunged into water? front





Fire 27 False

27. If your vehicle catches on fire you should pour water on the blaze to put it out.

- Get off road and turn **off the ignition**
- **Do not use water** to put out the fire.
- *This could actually spread the fire*
- **Chemical extinguisher or sand.**





Overheating

This can happen in **stop and go traffic** during **hot weather**, or **towing a trailer** up a steep hill etc. **Turn off any unnecessary equipment, such as AC**

- (if the temperature is still too hot) Turn **on the heater** to dissipate the heat
- If steam comes from under the hood, **Pull off the road, stop and turn off the ignition.**

77. If your vehicle begins to overheat, you should turn off unnecessary vehicle equipment such as air conditioning and turn on the heater, as this will draw hot air away from the engine.





Headlight Failure

- Parking lights
- Emergency Flashers
- Turn signals



Windshield Wiper Failure. or Sudden Opening of the Hood

- Roll down your **side window** and **stick your head out** so you can see.
- Crouch down and look through the **space left under the hood.**
- Activate **hazard lights**

Remember do not reduce speed drastically when vehicles are behind you.

78. **TRUE** OR FALSE. If your hood suddenly pops up while you are driving, you may have to roll down your window and lean over out the window to see.





Gas Pedal Sticks

- Hook your **toe under** it and try to raise it.
- Shift to **neutral**
- Choose a safe path to steer to the shoulder of the road.



Carbon Monoxide Poisoning

- May collect in you car if the **engine is running and all the windows are shut.**
 - Fumes are **odorless and deadly.**
 - **Tyler's Law - Know CO**
-

Symptoms of Carbon Monoxide Poisoning

- 1. Sudden Fatigue
- 2. Yawning
- 3. Dizziness
- 4. Ringing in the ear.
- 5. Headache
- 6. Nausea
- **If you experience any of these symptoms, turn off the engine, open the windows, and get out of the vehicle.**



HOW TO PREVENT CARBON MONOXIDE POISONING

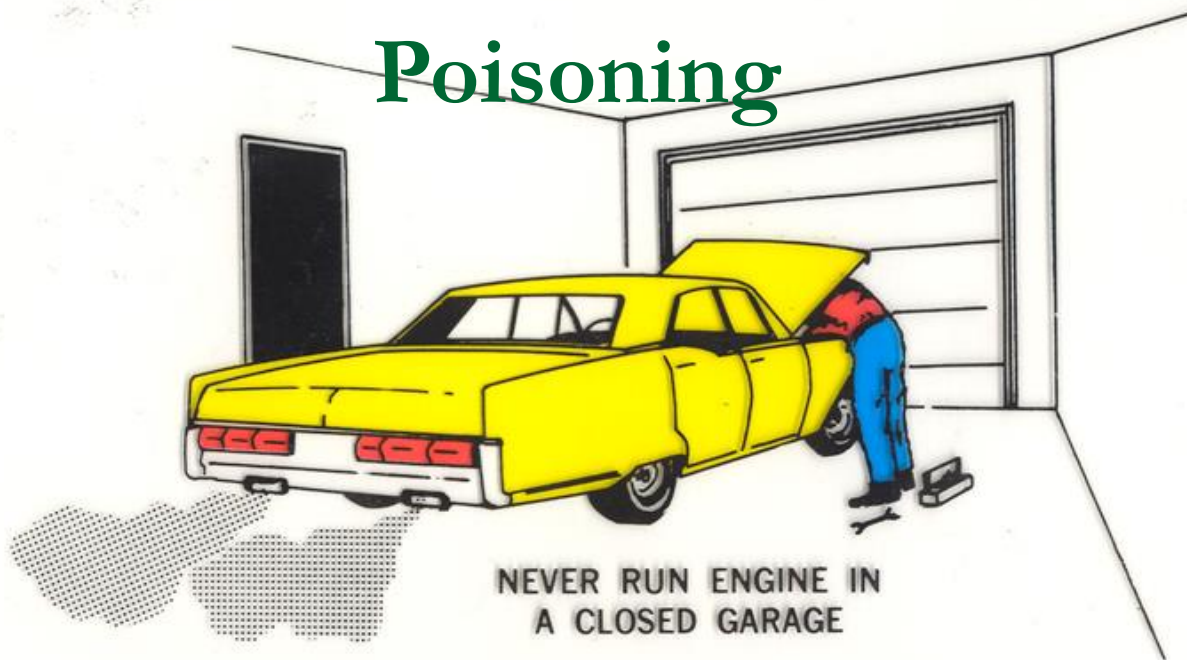


WINDOWS OPENED A LITTLE
IN WINTER



EXHAUST SYSTEM SHOULD
BE CHECKED

Avoid Carbon Monoxide Poisoning



NEVER RUN ENGINE IN
A CLOSED GARAGE

79- Make sure your vehicle's exhaust system does not leak and is not blocked.

80- Avoid sitting in a vehicle with the engine idling.

81- Do not drive with all the windows tightly closed

82- Do not warm up the motor while your vehicle is in a closed garage.

Periodically allow fresh air into the vehicle by lowering the windows.

Avoid idling a vehicle when stuck in the snow or the mud.

True or False

- **Carbon Monoxide can render you unconscious in just a few minutes.**
 - When temperatures are cold, carbon monoxide can get trapped inside the garage even when the garage door is open completely.
 - Carbon monoxide can seep into an attached house.
-

Signs of carbon monoxide poisoning



Headaches



Nausea



Dizziness



Breathlessness



Collapse



Loss of
consciousness

The End

