Module 6
Highway Driving

The following information is a review of the lesson you just completed. Take time to review and study this information. Remember, this important information will be needed to pass your upcoming assessment, so take the necessary time in order to feel secure about your knowledge of this segment. This is not a graded portion of the course, but should be completed as an additional exercise.

Lesson 1 - Characteristics of Expressway

Topic 1 - Expressway Introduction

High-speed (up to 70 mph) roadways typically carry a high volume of traffic. They are usually divided by a barrier of some type (guardrail, cement barrier, grassy median.) There are multiple lanes going in the same direction (two, three, four or more lanes.) They are controlled-access because there are only certain locations where a driver can enter and exit the expressway. These are called interchanges. Expressways have a low frequency of collisions but may have a high severity rate when a collision occurs because of the higher speeds.

Expressway Driving

Expressway driving is challenging. High speeds, traffic flow, types of traffic, and driver interaction all make expressways unique. Large trucks use expressways regularly and require the driver’s special attention. Multiple lanes make lane selection critical. Stopping distances are increased with higher speeds. Lane markings and traffic signs play an important role. Search patterns need to be lengthened (20 to 30 seconds ahead) as potential clues approach more quickly with higher speeds. Any actions taken with the vehicle need to be smooth and timed. Sudden changes in speed or direction could spell trouble.

Advantages of Expressway Driving

Advantages of expressway driving and limited access roadways include:

- They carry a larger volume of traffic
- Collision and fatality rates are lower than on other types of roadways
- Cross traffic is not present because of interchanges
• Opposing traffic is divided by some barrier
• Pedestrians, bicyclists, and slow-moving vehicles are not permitted on expressways
• They are designed to help drivers anticipate conditions ahead

Expressways Through Cities

City Expressways represent significant danger to the novice driver. This is because of the increased number of entrance and exit ramps that a driver must deal with during that driving period.

Here are some things that may help you during your city driving:

• Remember your lane positions. It is always best to stay in lane position 1 during city driving. This decreases your chances of having to deal with merging traffic.
• Stay alert and know when your exit is near. Be well ahead of your exit for your necessary lane change and give yourself plenty of time to maneuver into the merging lanes.
• Watch for all the signs, signals and markings on the expressway. This will keep your concentration at a high level and will alert you to any upcoming dangers.
• Be aware that most drivers will be distracted in these driving conditions and more than likely will make mistakes. Compensate for these drivers by predicting and being ready for their miscues.

Topic 2 - Types of Interchanges

There are many types of interchanges that you will encounter.

• **Cloverleaf Interchange** - Allows for interchange of two expressways with minimal disruption of speed or movement. The cloverleaf usually has characteristic weave lanes as traffic leaves one roadway and exits from another roadway. Curved roadways have banked and flat exits which lead to braking and steering problems as drivers adjust from high speed to speed of curve. The curves are often noted by reflector poles prior to the entry and exit of the curved roadways.
• **Diamond Interchange** - Allows for interchange of a major roadway with a secondary dual or multiple lane roadways. The diamond interchange may have traffic control devices on the intersecting secondary roadway that allow for left and right turns onto the secondary roadway. The signals may be used to allow left turns from the secondary roadway to the entry ramps of the major multiple roadways. Lane markings may indicate lane position on the approach to the intersection. A diamond interchange will allow the driver to re-enter the entrance ramp by moving across the intersection of the secondary roadway.
• **Trumpet Interchange** - Allows for interchange of secondary two-way streets to a multiple lane roadway with minimal traffic mix. It would take the place of a t-
intersection often used when a roadway ends at the intersection of another roadway. These intersections are often found when interstate feeder roads stop at the interstate roadway or loop.

- **Frontage Road Interchanges** - Allows for interchange of vehicles using parallel secondary two-way or one-way roadways and a major multiple lane roadway. Frontage road turnarounds allow drivers to exit a multiple lane roadway and use the opposing frontage road to enter the multi-lane roadway in the opposite direction. Allows for dense city traffic flows to mix efficiently with higher speed traffic flows of the multiple lane roadway. Yield rules on the frontage road may vary, as well as roadway markers, based on the direction of traffic flow.

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**Topic 3 - Signs/Signals/Markings**

**Signs**

Highway signs may be located beside the roadway or hanging overhead on cross-posts. The most common signs are on the screen. Click on each to review the meaning of these signs.

- a. The “Interstate” sign is shaped like a shield and is red, white, and blue in color.
- b. Guide signs are rectangular and may be green/white, blue/white or brown/white depending on where they are guiding the driver.
- c. Warning signs are yellow/black or orange/black depending on the area of warning.
- d. Regulatory signs (speed limit, etc.) are rectangular shaped and colored black/red/white.

**Signals**

Traffic signals on expressways are rare. They may be used as lane usage signals.

- a. A green arrow over a lane means that lane is open for travel.
- b. A yellow “X” over a lane means travel in that lane is about to change or close. The driver should move at least one lane to the right when safe to do so.
- c. A red “X” over lane means travel in that lane is closed or prohibited.

**Markings**

Lane markings on expressways mean the same as on any other roadway.

- a. The solid yellow line should always be to the driver’s left side.
- b. Broken white lines separate lanes of travel going in the same direction.
- c. Solid white lines mark the right edge of the roadway or entrance and exit lanes.
- d. HOV (high occupancy vehicle) lanes are marked with a white diamond and have restrictions on the number of passengers in the vehicle that is traveling in this lane.
Lesson 2 - Entering, Changing Lanes, and Exiting

Topic 1 – Entering Expressway

Before Entering Expressway

- Before entering the expressway, search guide signs for the correct route number and direction or destination.

- If entering what is believed to be an entrance ramp, and it is marked with “DO NOT ENTER” or “WRONG WAY” signs that are red and white in color, immediately pull over to the edge, turn around, and leave the ramp.

Steps to Entering Expressway

Expressway entrances include three areas: the entrance ramp, the acceleration lane, and the merge area. The entrance ramp allows the driver time to search traffic for flow and traffic gaps and evaluate speed and space requirements before entering. These ramps may be uphill, downhill, or level with the expressway. Each presents a different challenge when trying to search the traffic flow on the expressway.

- **Step 1 - Entrance Ramp**-This area gives the driver time to evaluate traffic conditions. It can be level with the expressway or on an uphill or downhill grade. Each has special search characteristics and requires special attention. Search ahead for traffic on the ramp as well as for a gap in traffic on the expressway.

- **Step 2 - Acceleration Lane**-This is the area to get the speed up to or near the speed of traffic on the expressway. The amount of acceleration depends on traffic flow on the expressway. Again, searching ahead for traffic in the lane and traffic signs such as “stop” or “yield” is just as critical as searching for a gap on the expressway.

- **Step 3 - Merging Area**-This is the area to move onto the expressway. Attempt to merge at the speed of traffic. You should maintain speed/acceleration; check rear zone and left rear zone; and accept or reject the gap/space.

- **Step 4 – Gap Selection**-Once you accept the gap, you should use appropriate mirror checks; visualize your target area on new roadway and then check signal and create a space cushion.

- **Step 5 – Enter Traffic Flow**-To enter the traffic flow, merge into the correct lane position; turn off the signal and maintain new target area.
Step 6 – Select Appropriate Lane—Now to enter the appropriate lane you should center your vehicle in the proper lane and than adjust your speed to the traffic flow and law.

Problems When Entering Expressway

General problems associated with expressway entrances include heavy traffic, short ramps and acceleration lanes, and high walls that may block visibility. Also, traffic ahead on the ramp may slow or stop abruptly.

Entrance ramp problems include:
- Picking the wrong lane
- Traffic ahead and behind on the ramp
- Sharp curves on the ramp
- Visibility problems ahead and to the expressway

Acceleration lane problems include:
- Amount of traffic in lane and on expressway
- Short acceleration lane
- Limited space ahead
- Actions of drivers ahead and behind

Merging area problems include:
- Heavy traffic
- Lack of a gap to merge
- Traffic slowing or stopping ahead
- Visibility problems ahead and to the side

Reducing Risk When Entering Expressway

There are ways to reduce your risks while entering an expressway.

Reducing risk on the entrance ramp:
- Search for the proper entrance
- Search ahead, behind, and to the expressway
- Prepare to adjust speed for blocked ramp
- Avoid stopping or backing on ramp

Reducing risk in the acceleration lane:
- Search ahead and for gap on expressway
- Prepare to adjust speed
- Pull ahead onto the shoulder if no merge is available

Reducing risk in merging areas:
- Search ahead and to the side
- Prepare to blend speed with traffic
- Watching for traffic changing lanes at merge points
What is Ramp Metering?

This is a system of lights and sensors that allows only one car at a time to enter a limited access highway. You will normally encounter these devices only in large urban cities.

Topic 2 - Changing Lanes

Changing Lanes

The need to change lanes on the expressway occurs often. It can be more dangerous when there are more than two lanes going in the same direction because several vehicles may want to move into the same lane. Search techniques for changing lanes become even more important in these situations.

Some reasons for changing lanes on the expressway include:

- Entering or exiting
- Changing lanes to allow another vehicle to enter
- Following large or slow-moving vehicles
- Lane ahead becomes blocked
- Animals on expressway
- Passing

Lane change procedure:

- Signal
- Check traffic (mirrors and head check)
- If clear, steer smoothly to the new lane (if not, wait)
- Cancel signal
- When changing lanes, change one lane at a time
- Do not cross several lanes at once
- Adjust speed to the flow of traffic once in the new lane

Choosing Lanes On Roadway

- When choosing a lane on a highway or expressway you should let the traffic dictate the lane you use in most instances. As a rule, it is safer to drive in the right lane and pass in the left. The center and left lanes are usually reserved for passing or faster traffic.

- During rush hour or heavy traffic periods, you should avoid the right lane because of the entrance and exit merging traffic. Large vehicles such as buses, trailers and semi-trucks are required to travel in the right hand lane except while passing. You should always avoid traveling between two large vehicles.
When changing lanes, do so in the appropriate manner, do not straddle the lanes for any extended period of time. This causes a slow down in traffic and can cause low-grade road rage with other drivers.

**Topic 3 - Passing/Being Passed on Multiple Lane Roads**

**Passing Maneuvers**

- Passing is one of the most dangerous maneuvers a driver can attempt. High speed passing on expressways adds to the danger and a high volume of traffic on expressways increases the chances of collisions. This being said, it is still safer to pass on an expressway than a two-lane roadway.

- Passing on the left is the most accepted practice; however, passing on the right is permitted if a slower driver is in the left lane.

- We spent a great deal of time on passing in earlier lessons. All of these passing techniques are applicable to expressway driving. If you feel you need additional information on passing, please refer back to Module 5, Topic 4.

**When Being Passed**

- When being passed you should be aware of the position of the vehicle that is passing you. Space is very important when being passed. If the vehicle passing requires additional space, move over in lane position 3 or 5 if the vehicle is passing on the left and position 2 or 4 if they are passing on the right. While this is not necessarily the law, it may reduce risks for both you and the driver of the other vehicle.

- Do not increase your speed when another vehicle is trying to pass, just stay at a steady pace. Once the motorist passes you, you should maintain a 3 to 4 second space cushion once they move back into your lane. This may require you to slow down. While this seems impractical, it is the safest maneuver.

- If you notice that more and more drivers are passing you on the right, you should check your rear zone for vehicles, signal and move over to the right lane. If you are slower than most traffic, the right lane is where you should be driving.

**Other Highway Users**

Trucks, tractor-trailers, buses, recreational vehicles, and other large or slow moving vehicles add additional challenges to driving on multiple-lane roadways. They are especially a concern when driving on hills where speeds are not consistent with other vehicles. Larger vehicles may provide a windblast that can move smaller vehicles when
passing. Keep in mind that smaller vehicles may not recognize the time needed to pass larger vehicles on the roadway.

**Managing Space**

A driver should use the following guidelines to manage space more effectively on the multiple lane roadways:

- Adjust the vehicle’s position and speed to road and weather conditions in order to provide time for braking, accelerating, and steering.
- Develop a minimal four-second following interval when merging onto the roadway, changing lanes, and exiting the expressway area.
- Minimal steering inputs are needed to change lanes when passing, entering, or exiting. Excessive steering can lead to a loss of control at higher speeds.
- Move over one lane at a time rather than moving across multiple lanes. Visibility and time are key elements to performing a safe lane change.
- Make room for vehicles entering the roadway from an entrance ramp by changing lanes when clear.
- It is safer to change lanes while keeping an adequate distance to the front of the vehicle when another driver tailgates.
- Maintain plenty of space when returning to the lane after a pass.
- Reduce speed when roadway narrows at tunnels, construction zones, and for larger vehicles.
- Be alert for crossing winds when driving over bridges or through open mountain passes.

**Topic 4 - Roadway Exit**

**Leaving the Expressway**

Leaving the expressway is a smooth procedure accomplished at an expressway exit. Exits are marked with guide signs, usually one to two miles before the exit.

First, identify well ahead the exit needed. If the exit is missed, do not stop and/or back up on the expressway.

The exit has two components:

- **Deceleration lane** – area where speed can be reduced to exit safely
- **Exit ramp** – these may be level or sharply curved, uphill or downhill. Be sure to adjust speed for ramp speed limit.
Exiting Multiple Lane Roadway

About one-half mile (20-30 seconds) before the exit, signal and move to the lane that leads to the deceleration lane. At the deceleration lane entrance, perform a smooth lane change procedure and move into the deceleration lane. Check the posted ramp speed sign and begin to adjust speed to or below the posted speed. Also, check for traffic stopped ahead. Check mirrors and begin to slow down. Keep a space cushion ahead and behind your vehicle.

Steps to Exit Multiple Lane Roadway

Step 1
- Check to the rear and right rear
- Use all mirrors and check blind-zones
- Use your turn signal to alert drivers you plan to exit

Step 2
- Adjust your vehicle to lane position 3
- Maintain your current speed
- Again, check your mirrors

Step 3
- Enter the exit area
- Turn your signal off
- Release the accelerator and check the rear zone again

Step 4
- Reduce speed to an appropriate exit speed
- Check your new path of travel to the front

Problems When Exiting Expressway

Possible exiting problems include:

- “Weave” lane conflicts
- Traffic on the exit ramp
- Short deceleration lane
- Very slow ramp speed

Special Expressway Situations

Some special situations exist on expressways:

a. A “weave” lane is both an entrance and an exit for an expressway. Traffic may come onto and leave the expressway at the same location. This causes conflicts for both drivers using a “weave” lane. It also causes conflicts for drivers on the expressway and on the entrance ramp in terms of speed and space adjustments. The driver entering from the entrance ramp shall yield the right-of-way to the driver leaving the expressway.
b. Construction areas – Search ahead for warning signs. Reduce speed. Adjust position to maintain a space around the vehicle.
c. Toll booths – Search well ahead for toll booth signs. Begin reducing speed early as traffic may be backed up at the booth. Search for green lights or signs for an open booth. When exiting, search traffic to both sides for merging potential. Accelerate smoothly and adjust speed.
d. Some entrance ramps enter from the left instead of the right. This means that traffic is entering the far left lane, usually reserved for higher speed traffic. The potential for conflict problems is greater. The search pattern is different in that search is directed to the right and over the right shoulder instead of left. Also, additional lane changes to the right may be necessary once on the expressway if the planned speed is less than traffic traveling in the left lane of the expressway.
e. Short Deceleration Lane – Some deceleration lanes may be shorter than others. You should slow more quickly in these situations. Be sure to look at your rear zone to check for traffic. As you enter the deceleration lane you need to judge the lane’s length, adhere to the exit ramps speed limit, check the speed while braking and continue to monitor the rear zone.

**Topic 5 - Trip Planning**

**Short Trips**

When planning a short trip on the highway there are a few things to consider:

- Know the name, route and number of the entrance and exit to be used
- Check your vehicle for maintenance problems
- Be sure to plan a time to travel to avoid congestion
- Remember to take a local map if needed

**Long Trips**

When planning a long trip on the highway there are a few things to consider:

- Maintenance check of vehicle becomes critical
- Vehicle loading considerations
- Plan stops for food, rest, and fuel
- Know the route numbers needed
- Check with local agencies for construction delays
- Carry money or credit cards
- Take a map of planned route
- Plan to avoid congestion in cities
Lesson 3 - High Speed Considerations

Topic 1 - Potential Dangers

While on the roadway, there are some things that should not be done.

Do Not:

- Drive over or across median, yellow painted line, or raised dividing section
- Make a left turn or a U-turn
- Use left lane except for passing
- Change lanes without signaling and checking for an open gap
- Drive onto freeway except through an on-ramp
- Park or Stop on the freeway, except at areas provided
- Park on shoulder unless you have an emergency
- Back up

Multiple Lane Roadway Dangers

There are many dangers to be aware of when driving on a multiple lane road. Some of these will be explained in greater detail later in this lesson.

- Higher speeds create greater braking distances—it takes longer to stop
- The field of vision is narrowed
- Highway hypnosis is prominent
- There is a velocitation effect on expressways
- Entering and exiting sometimes occur on the left
- Vehicles on shoulder may try to re-enter
- Windy sections of the roadway
- Inappropriate use of lane changing device
- Slow moving vehicles ahead
- Driving in a pack of vehicles
- Tire hydroplaning during wet weather conditions

Highway Hypnosis

We have talked about Highway Hypnosis earlier in the course but as a refresher. Highway Hypnosis occurs when traveling at high speeds for long periods of time, the driver may become hypnotized by constant staring ahead on the roadway, which may result in driving in a dulled, drowsy, trancelike condition. Plan breaks and rest stops to combat highway hypnosis. Pull to a safe area for rest and sleep when tired.
Wolf Packs

As you drive on the expressway you should try your best to avoid packs of vehicles. These are sometimes referred to as Wolf Packs. As you will remember in earlier lessons, you should always leave an escape route. These vehicles traveling in bunches limit your escape route by closing off all of your zones. It is always best to try to drive the expressway by yourself if possible with a limited amount of traffic close to your car.

Minimum Speed Limits

You would think that traveling at a slow rate would always mean safer driving. Actually, on a highway or expressway, if you are driving slower than the other traffic, you become a hazard to other drivers. This is why there is a minimum speed limit on all highways. This means that the lowest possible speed that you may travel is the minimum speed limit posted.

There will be times that you and other traffic may travel below the minimum speed limit and it would be legal and wise to do so. That is during adverse conditions such as weather, heavy traffic or accidents on the highway.

Velocitation

Velocitation can occur when a driver has been driving many hours. This affect makes the driver feel as though your vehicle is traveling at a slower speed than it actually is. This condition can cause the driver to increase your speed and travel above the speed limit. This is especially dangerous when exiting the expressway onto a frontage road where the speed limit is lower. It is also quite common when traveling in rural areas. To prevent yourself from experiencing this condition, you should check your speed often.

Disabled Vehicles

If you have trouble with your vehicle on an expressway or highway you should take these steps.

1. Check your rear zone and signal prior to putting on your brakes. Pull over to the shoulder of the roadway and move as far right as possible.
2. Once stopped, turn on your hazard flashers.
3. If your vehicle is in a dangerous area, move everyone inside the vehicle to the outside as far away from traffic as possible.
4. Raise the hood and tie a white cloth to the antenna or doorknob to let passing motorists know that you are having problems.
5. If you have emergency flares or reflectors, set them out at least 500 feet to the rear of your vehicle.
6. If your vehicle is safely away from traffic, return to your vehicle, get back in and lock the door. Should anyone stop to help, roll your window down; ask them to call for help. You should not get into a strangers vehicle.
7. Do not try to direct traffic away from your vehicle.

Roadway Repair

Road construction seems to be in every community these days. You should always stay alert for road repair signs and be prepared to follow the directions on the posted signs. Follow the directions from construction workers or law enforcement officers around all construction.

Ramp Overflow

Many times you will experience what is called “Ramp Overflow.” This dangerous situation is caused when there is a back-up of vehicles getting off an exit ramp. You should try to recognize this situation early enough to make your determination of what you should do.

There are two recommendations, the first is to go past the exit and take the next one and double back. This is the safest approach. If you decide to take the exit along with the other vehicles, you should check your rear zone, flash your brake lights and begin slowing early.

**Topic 2 - Reducing Risk Entering the Expressway**

To reduce risk when entering the roadway you should:

- Search for proper entrance
- Search for potential conflicts
- Prepare to drive onto the shoulder if necessary
- Adjust your speed for the entrance ramp
- Avoid stopping on the ramp
- Merge smoothly
- Create space around your vehicle

Increase Following Interval

Following distance is critical on the expressway. It is important to try to maintain a four-second following distance. If you maintain less than this four seconds, you reduce the sight distance and leaves you less time to react to a closed front zone.

Keeping a space cushion to at least one side of your vehicle gives an escape route if the lane ahead becomes blocked. Also, try to maintain at least a two-second space to the rear of your vehicle by controlling space to the front.
Following distance is even more critical when:

- Following large vehicles blocking your vision
- Following a motorcycle
- When driving in adverse weather conditions
- Driving in heavy traffic
- Being tailgated
- Pulling a trailer
- Entering or exiting an expressway

**Being Followed**

By using your speed control and lane changing techniques, you should try to maintain your space even in the rear zone. Sometimes it is difficult to keep your four-second space to the rear since you don’t have full control. Remember the technique for handling a tailgater. Tap your brakes gently, which will alert the driver that you may be stopping soon. Most times this will get them out of your rear zone space. If this doesn’t work, change lanes and let the tailgater pull ahead of you.

**Common Speed**

The common speed is the speed at which most drivers are using at the time. If you use this speed, you will blend better in traffic and decrease your chances of accidents. You will need to watch for times when the flow of traffic is over the speed limit. It is still illegal to drive over the speed limit even if you are blending with traffic.

**Blind Spots**

We have talked about blind-zones throughout the course. We will continue to touch on blind-zone areas because of the significant importance. A “Blind-spot” or “Blind-zone” is created when a vehicle is located at a point where neither the inside or outside mirrors has a view of that vehicle.

During highway driving, the blind-zone can change very rapidly. You may look in your blind-zone one second, and it be clear, only to find a vehicle there the next second. Remember that the change in your blind-zone is directly related to the speed of you and other vehicles.

You also need to remember that blind spots can occur on both sides of the vehicle. You will also want to avoid being in another driver’s blind-zone by decreasing your speed, increasing your speed or changing lanes.
Lesson 4 - Driving Environment

Topic 1 - Heavy Traffic

Adjusting to Heavy Traffic

- The term “Heavy Traffic” means just that. The lanes and spaces surrounding your vehicle are filled. Heavy traffic doesn’t necessarily mean that you will be bogged down or slowed; in fact, if there are no obstructions ahead, heavy traffic generally moves at the speed limit. However, during morning and late afternoon hours in most urban cities, heavy traffic also equates to slow and sometimes not moving at all.

- As the driver in heavy traffic, you must concentrate at an even higher level than regular or no traffic. Just because you are going slower doesn’t mean that you can lose your concentration. Most heavy traffic accidents occur because drivers were lost in thought or they just weren’t paying attention to the driving tasks. As a new driver, the best advice is to keep concentration, be patient and avoid the distractions we have talked about in earlier lessons.

Rush Hour

Regular traffic is that normal daily traffic in the urban cities in the morning and late afternoon. This normal heavy traffic is fairly predictable because most of the drivers are use to driving in heavy traffic. They are familiar with the entrances and exits and make the necessary lane changes well in advance in order to help the flow of traffic.

Special Occasion Traffic

During special occasion traffic, there are more opportunities for accidents to occur. This is because many of these drivers are not familiar with driving in heavy traffic and generally don’t compensate their normal driving skills to deal with such traffic. They make awkward and sometimes daring vehicle maneuvers which cause fender benders and near collisions. Many times these drivers are impaired with alcohol from the event they came from which causes even higher risks on the highway. As a rule, you should always try to find an alternate route if you expect a high traffic volume.

Controlling Your Space

- It is very important to maintain a proper distance between vehicles in your front, side and rear zones. We have learned on several occasions about keeping a safe space. It is even more important and more of a challenge during heavy traffic.

- The best technique for keeping space during heavy traffic is to maintain an abnormally large space in front so you can use this in case a driver begins invading your rear zone. The downside to this technique is that other drivers to
your side may see your front space as a good gap they can slide into. This technique is one that you will work on and perfect as you develop as a driver.

Choosing a Space

When choosing a space or gap in heavy traffic you will need to alter your normal driving instincts. The gaps will be smaller and will require you to accept a tighter space than normal as you move into your gaps. Be sure to keep your speed at the same level as those around you and be prepared to stop or slow if traffic ahead bogs down.

Traffic Ebb and Flow

While driving in heavy traffic you will experience ebb and flow to the traffic pattern. At times you will move at a rapid pace and all of a sudden you will slow to a crawl. There is almost always a good reason for these slow-downs. The most common are:

- Entrance ramps ahead
- Exit ramps ahead
- Accidents ahead
- Merging traffic into adjoining highways

**Topic 2 - Rural Driving**

Introduction

- Driving conditions in rural areas are far different from those in urban areas. The biggest difference you will notice right away is the lack of traffic. In most rural areas, there will be open spaces and rarely will you find a traffic jam. On the outside this sounds to be the ingredients for safe driving, but reality is that nearly twice as many highway deaths occur in rural areas than urban.

- The reason for this is that people get lacks with their driving habits in rural areas. They forget to watch for blind-spots, they forget to check their path of travel on a curve in the road, they forget to signal when changing lanes or turning, most often they don’t adhere to the speed limits and drive too fast for the conditions.

- When driving in rural areas you must watch for things such as: tractors, farm trucks, and farm animals in the roadway.

- Don’t be lulled into a sense of safety just because you are in a rural environment. Be aware of the dangers and practice driving in these conditions with your parent or trainer prior to driving by you.
Rural Hazards

There are many hazards you will encounter in a rural setting.

**Speed** - There is a great temptation to speed in the rural areas because the traffic is low, the site lines are generally wide open and speed limits are usually high. Refrain from speeding in rural areas.

**Access to Roadways** – In rural areas, the highway will have many points of access such as dirt roads, driveways, crossroads and open fields. This is one reason why danger lies around every turn. You never know when a vehicle may be entering the roadway, so stay prepared.

**Slow-Moving Vehicles** - Some of the most dangerous situations in rural areas are while driving around farm equipment. These tractors can legally use the roadways, though they do not have to adhere to minimum speed limits. Many times these vehicles are extremely wide and take up most if not the entire highway. You should always be prepared to slow down until the driver of the farm vehicle moves far to the shoulder of the road to give you access to the roadway.

**Animals** – Animals, both wild and domestic are more of a danger in rural areas due to the high population of these animals in the wooded or farm conditions. Animals such as moose, deer, cows, horses, pigs, and dogs are extremely dangerous and can cause not only collisions, but also fatal collisions. When driving in rural areas, especially at night, be on alert for deer and moose in the roadway. Many times you will see road signs that warn you if there are extremely dangerous conditions, but under any rural condition, be prepared to slow or stop due to animals in the roadway.

**Limited Escape Routes** – Because in most rural conditions you will be driving on a two-lane highway, you will be limited to the usual number of escape routes. When traveling at a high speed and rounding a curve or rising a hill, you should be prepared to slow down or even stop if your lane is blocked by one of the above dangers. Other choices such as veering over the centerline, or moving onto the shoulder can be especially dangerous on rural roadways. The safest bet is to slow down when entering a curve or hill.

**Railroad Crossing** – You will experience a larger than normal amount of railroad crossings in the rural setting. These are especially dangerous if you have been used to driving in an urban area. Many times the crossing bars are not present at all crossings on rural roads. Crossing lights should always be present, but be prepared just in case. The same rules apply in rural that you have already learned.
Review these important rules:

a. If a railroad crossing is marked only with a cross-buck sign - reduce speed, look both ways, and listen for audible signal (whistle.)

b. If a train is approaching - STOP; if not, proceed only upon exercising due care.

c. If red lights are flashing at a railroad crossing - STOP. If a train is approaching, remain stopped until the train passes by and the lights stop flashing.

d. If railroad-crossing arms have been lowered - STOP. You must wait until the train has passed and the gates are raised.

e. Never stop on tracks. If your car stalls on the tracks and you cannot restart it, get out and try to push it off the tracks. If you cannot push it off the tracks, get help. If a train is approaching and your vehicle is stalled, get out quickly and get clear of the tracks. Run in the direction from which the train is approaching to avoid flying debris, staying clear of the tracks.

f. Be sure all tracks are clear before you proceed across. There may be two or more sets of tracks. One train could be blocking the view of another.

g. Trains do not and cannot stop at crossings - They always have the right-of-way. Audible signals or whistle may be difficult to hear when approaching railroad crossings. It is suggested that you roll your window down, turn your radio down, and listen carefully.

Entering Rural Situations

Adjust Speed – There are many reasons to slow down when coming from a rural highway into a town or small community, the first is safety, the others are obeying the law. You will encounter many additional hazards when driving through a small community than on the highway itself. Many small towns have gas stations, restaurants, grocery stores and such on either side of the highway. At any time, the potential of having a vehicle merge into traffic is very high. You may not be use to these additional access points and feel they are illegal. In a rural setting, you have to be prepared for these additional access points and compensate with the use of speed control. You will notice that the speed limit rapidly decreases as you enter the town itself. Be prepared for up to 20 to 30 mile an hour speed limit changes within several hundred feet. Be sure and check your rear zones before slowing down, make sure the vehicle in back is also prepared to slow.

Rural Traffic Lights

Traffic lights are a little different in the rural setting. Many times your PNR (Point of No Return) is different in small communities or along rural highways. As you may be use to, yellow lights last around three seconds in urban areas while in rural areas they can last up to five seconds. This gives you a much longer time for your PNR. However, if you are just traveling in that area and are not use to these longer yellow lights, it is a good
practice to slow and stop at yellow lights rather than wondering if they will be longer than usual.

**Topic 3 - Road Surfaces**

While traveling on rural roadways you will encounter many different road changes, both in width and surface. Here are some of the changes that you can expect while in a rural setting.

**Narrow Bridge** – Be prepared for narrow bridges in rural areas. You will see this roadway sign to alert you. This means that the bridge may only have one lane. When you see this sign, take these actions:

1. Check your path of travel far ahead. Determine if there is any on-coming traffic that will enter the bridge at or about the same time as you plan to enter.
2. If you encounter an on-coming vehicle that will enter at the same time, slow down and allow the other vehicle to enter the bridge before you arrive.
3. The rule of the road allows for the larger vehicle to go first due to the stopping time needed for the larger vehicle.
4. If you come upon the bridge after the on-coming vehicle, you must always yield to that vehicle.
5. Always assume that the other vehicle doesn’t know the rules and yield to all on-coming cars until they communicate by lights or other methods that they are allowing you to enter first.

**Pavement Ends** – Most rural areas have roadways that have been paved for a portion and then continue with dirt, gravel or caliche. In most instances you will see this sign that will warn you of this change. You should reduce your speed prior to reaching the change. Continuing at the same speed puts you at risk of skidding out of control on the loose surface.

**Gravel Roads** – Gravel roads are extremely unpredictable and you should always use great caution when you encounter these surfaces. The gravel tends to shift under your tires and can cause traction loss. You should always reduce speed when driving on gravel roads, especially when entering a turn. In addition to these dangers, you also need to be prepared for flying gravel that may come from passing or leading motorists. These rocks can cause tremendous damage to windshields and in some cases cause windows to shatter.

**Dirt Roads** – While dirt roads have more traction than gravel roads, they are still highly dangerous and should be traveled with caution. These roads will turn slippery during wet weather and in many instances can cause your vehicle to bog down. In windy weather and when many vehicles are traveling these roads there can be dirt clouds that can impair your site and cause accidents. Travel these roads slowly and stay alert.
**Tar Roads** – Fresh tar is often spread over gravel on rural roadways. This is more of a nuisance than anything else. Tar will fly from the tires of passing vehicles as well as your own tires. This mess can cause damage to your paint. If possible, stay off of freshly tarred roads. If you must travel on these roads, proceed slowly to avoid throwing tar on your vehicle.

**Topic 5 - Mountain Driving**

Mountain driving is extremely challenging to the novice driver. Because of the ups and downs associated with mountains, it is difficult to maintain a constant speed. During downhill sections, you will naturally experience a higher rate of speed and you will need to monitor your speed and use your brake or a lower gear to stay within the maximum limit.

Never coast in the “Neutral” gear while going downhill because you may lose control of the vehicle. During uphill sections this will be just the opposite. It will be difficult to maintain the speed limit unless you constantly increase your foot pressure on the accelerator. You may need to switch to a lower gear.

- Mountain roads will zigzag and create a series of sharp turns called switchbacks. A sign like the one on the screen will alert you to these types of conditions. Slow your pace during these sections.
- Remember your lessons in hill situations. Most of these techniques apply to mountain driving. If you can’t see around a curve or coming over a steep portion of the mountain, reduce your speed, move into lane position 3, have your lights on and honk your horn.
- One of the hazards of mountain driving is having to depend on the other drivers to practice safe-driving techniques as well. On-coming vehicles coming down a steep slope and curve have a tendency to move into your lane. Be sure and stay in lane position 3 or 5 if necessary.
- On some mountain roads you will see a “Runaway Vehicle Ramp.” These ramps are especially for large vehicles, but you may use them should you experience a runaway situation.
- Difficult weather conditions make mountain driving even more difficult than normal. During fog, snow, ice or rain you should proceed with caution and drive according to those conditions you are facing.

**Topic 6 - Desert Driving**

Desert driving is very difficult not only on the driver, but also the vehicle. You must be prepared for desert driving prior to entering.

Some tips on driving in the desert include:
• Reducing glare with good sunglasses
• Stop more frequently
• Change drivers more frequently
• Carry bottles of water in your vehicle

The desert heat can cause serious stress on your vehicle during long distance driving. Extensive driving in desert conditions requires more frequent vehicle servicing.

• Radiator fluids should be checked at every stop during desert driving. When checking the radiator fluid, be sure and let the engine cool before taking the cap off. It is best not to remove the radiator cap. You can check the level by looking at the coolant reservoir.
• Check the tire pressure regularly. In these conditions, tire pressure has a tendency to increase. Don’t deflate the tire lower than the recommended level.