Driver Education Classroom and In-Car Curriculum

Unit 5

Risk Reducing Strategies for High Speed, Multi-Lane Expressways

Driver Education Classroom and In-Car Instruction Unit 5-2

Unit Introduction

Unit 5 will introduce the driver to procedures and information-processing tasks in moderate to high risk environments. Emphasis will be placed on entering, driving on and exiting expressways at speeds up to 65 mph. Also, smoothness of steering, speed control and lane position and selection on expressways will be covered. Vehicle law dealing with passing, lane changing and speed limits and content on expressway entrances and exits will be presented.

Risk reducing strategies will be presented for the driver to learn to drive collision-free in the high-speed expressway environment.

Goals

Time Frame: 2 hours

Students will:

- Participate in teacher-led discussion on expressway characteristics, types of interchanges, entering and exiting expressways
- Participate in teacher-led discussion of your state's vehicle law regarding passing, being passed, and minimum and maximum speed limits on expressways
- Watch videos dealing with strategies to reduce risk on expressways
- Complete the Unit 5 Test

Driver Education Classroom and In-Car Instruction Unit 5-3

Title: Risk Reducing Strategies for High Speed, Multi-Lane Expressways	Time Frame: 2 hours
Resources Needed	**Instructor Preparation**
Textbooks: Drive Right Ch. 11 How to Drive Ch. 10 Handbook Plus Ch. 12 Responsible Driving Ch. 10	Review recommended learning activities Review textbooks Review on-street lesson plan used in combination with this unit and textbook
Slides 5.1-5.23 Fact Sheets 5.1-5.2 Videos 5.1-5.4 Your state's vehicle law	Review slides Review fact sheets Review included videos
Included Video: • *Freeway Driving* (7 min) • *Teaching Your Teens to Drive* Lesson 12	
Unit 5 Test	Included

Driver Education Classroom and In-Car Instruction Unit 5-4

Performance Objectives	Learning Activities	Resources
Students will describe the characteristics of a controlled-access, high-speed highway commonly called an expressway.	Use Slide 5.1 and lead a discussion about the characteristics of expressways. Ask students to give some examples of expressways they know about in their immediate area.	Slide 5.1 "Characteristics of an Expressway"
Students will demonstrate knowledge of protective devices incorporated into roadway and roadside structures.	Use Slide 5.2 to lead a discussion of the features incorporated into highway design to enhance occupant safety.	Slide 5.2 "Highway Safety Design Features"
Students will describe the various traffic controls encountered in expressway driving.	Use Slides 5.3, 5.4, and 5.5 to lead a discussion of various traffic controls on an expressway including the meanings of and actions taken by the driver in response.	Slide 5.3 "Common Expressway Signs" Slide 5.4 "Common Expressway Lane Controls" Slide 5.5 "Expressway Lane Markings"

Driver Education Classroom and In-Car Instruction Unit 5-5

Content Outline

Expressways are high-speed (up to 65 mph or higher) roadways that typically carry a high volume of traffic. A barrier of some type (guardrail, concrete barrier or grassy median) is usually present. 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.

Highway safety design features are rarely given much thought. Elimination of intersections, wide clear shoulders and wide lanes all contribute to the low crash/injury/fatality rate on the Interstate Highway System. Other occupant protection design features on expressways include but are not limited to:

- Rumble strips installed at the road edge to alert drivers that they are drifting off the roadway onto the shoulder or median, (countermeasure to nodding, falling asleep or inattention)
- Redesign of median barriers
- Breakaway sign support posts
- New design guard rails with ends angled away from roadway and buried
- Crash barrels such as vinyl liquid or sand-filled drums, at bridge heads and major decision points
- Protected left and right turn bays
- Collector/distributor lanes on high speed, high density highways to separate slower moving entering/exiting traffic from through traffic
- Message signs to alert drivers to problems

The "Interstate" sign is shaped like a shield and is red, white and blue in color. Guide signs are rectangular and may be green/white, blue/white or brown/white depending on where they are guiding the driver. Warning signs are yellow/black or orange/black depending on the area of warning. Regulatory signs (speed limit, etc.) are rectangular shaped and colored black/red/white. Signs may be located beside the roadway or hanging overhead on cross-posts.

Traffic signals on expressways are rare. They may be used as lane usage signals. A green arrow over a lane means that lane is open for travel. 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. A red "X" over a lane means travel in that lane is closed or prohibited.

Lane markings on expressways mean the same as they do on any other roadway. The solid yellow line should always be to the driver's left side. Broken white lines separate lanes of travel going in the same direction. Solid white lines mark the right edge of the roadway or entrance and exit lanes. HOV (high occupancy vehicle) or special 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.

Driver Education Classroom and In-Car Instruction Unit 5-6

Performance Objectives	Learning Activities	Resources
Students will describe laws and speed adjustments necessary to reduce risk in expressway driving.	Discuss with the students what the minimum and maximum limits are in their state. Use Fact sheet 5.1 as a reference.	Fact Sheet 5.1 "Your State's Vehicle Law"
Students will describe some advantages to expressway driving.	Ask the class for some of the advantages of expressway driving. List their answers on chalkboard or dry-erase board. Compare the class list with the instructor list.	Chalkboard Dry-erase board
	Included Video: Show the first segment of Lesson 12 from the video "*Teaching Your Teens to Drive*." Stop the video as it begins to explain passing on two-way roads.	Included Video: "*Teaching Your Teens to Drive*" - Lesson 12 (7 minutes)
Students will describe the types of interchanges associated with expressways.	Use Slides 5.6, 5.7, and 5.8 and describe the traffic flow at each type of expressway interchange.	Slide 5.6 "Diamond Interchange" Slide 5.7 "Cloverleaf Interchange" Slide 5.8 "Trumpet Interchange"
Students will describe the preparation needed before taking short or long trips o expressways.	Use Slides 5.9 and 5.10 and discuss preparation needed before taking short or long trips on expressways.	Slides 5.9 "Highway Hypnosis" Slide 5.10 "Long Trips on Expressways"

Driver Education Classroom and In-Car Instruction Unit 5-7

Content Outline

Speed limits on expressways are typically no higher than 65-70 mph (refer to your state's vehicle code.) In urban, congested areas, they are usually 55 mph. Speed limits are based on good road and weather conditions.

Minimum speed limits are necessary because going too slowly on expressways can be just as dangerous as going too fast. It is usually against the law to operate a vehicle at such a slow speed as to impede the normal and reasonable movement of traffic. The State Highway Administration or local authorities determine what minimum limits are necessary.

Characteristics of expressway driving 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
- Collisions with fixed objects on the side are reduced by design
- They are designed to help drivers anticipate conditions ahead

The types of interchanges on expressways include: diamond, cloverleaf and trumpet.

- A cloverleaf interchange has a series of entrance and exit ramps that resemble the outline of a four-leaf clover. This type of interchange enables drivers to proceed in either direction on either highway.
- A diamond interchange is used when a road that has little traffic crosses a busy expressway.
- A trumpet interchange is used where a side forms a T intersection with an expressway.

To prepare a car for any trip on the expressway, be sure to check the important mechanical components such as windshields and windows, lights, tires, all fluid levels, belts, hoses, brakes and load distribution.

For short trips on expressways, consider the time of day to avoid congestion in city areas. Have a plan for the route including the route number, entrance and exit numbers of final destination. For long trips, also consider rest stops, fuel stops, food stops and potential construction areas. Take a map with routes highlighted or a description of a route written on paper as a reference. If the expressway travels through or around a city, consider again the time of day to avoid "rush hour" travel through these areas.

When taking a long trip, particularly on a rural expressway with little traffic, be aware of a condition known to drivers as "highway hypnosis." 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 or trancelike condition.

Driver Education Classroom and In-Car Instruction Unit 5-8

Performance Objectives	Learning Activities	Resources
Students will describe planning considerations of the vehicle, vehicle loading and equipment, and personal considerations when driving to a destination far away.	Use Slide 5.10 and discuss the factors to consider when planning a long trip. Ask the students to prepare a list of each consideration and use chalkboard or dry-erase board to list their responses.	Slide 5.10 "Long Trips on Expressways" (continued) Chalkboard Dry-erase board

Driver Education Classroom and In-Car Instruction Unit 5-9

Content Outline

Destination Driving

Planning an extended trip:

While certain checks should always be made before driving, preparing for an extended trip of several days, some of which will likely be over high speed highways, requires extra preparation.

Preparing the vehicle:

- Tires for inflation, balance, alignment, condition of tread and sidewalls
- Brakes for wear and/or adjustment
- Windshield wiper blades and all lights
- Engine compartment (Tune-up if applicable, oil change, lubrication and filters, hoses, belts, brake, radiator and windshield wiper fluids)

Loading considerations:

- Distribute weight evenly throughout vehicle. DO NOT OVERLOAD.
- Load capacity is basically 150 lbs. per belted seating position plus 125-175 lbs. for luggage. Check owners' manual.
- Soft items only within passenger compartment, i.e. pillows and/or blankets.
- Car-top carriers raise center of gravity and adversely affect braking and steering.

Basic equipment:

- Maps with routes marked
- Flashlight, first-aid kit, screwdriver, pliers, adjustable end wrench and socket set
- Jack, spare tire, lug wrench, wheel blocks and battery jumper cables

Driver Education Classroom and In-Car Instruction Unit 5-10

Performance Objectives	Learning Activities	Resources
Students will describe planning considerations of the vehicle, vehicle loading and equipment, and personal considerations when driving to a destination far away. (Continued)	Use Slide 5.10 and discuss the factors to consider when planning a long trip. Ask the students to prepare a list of each consideration and use chalkboard or dry-erase board to list their responses.	Slide 5.10 "Long Trips on Expressways" (Continued) Chalkboard Dry erase-board

Driver Education Classroom and In-Car Instruction Unit 5-11

Content Outline

Emergency equipment (depending on weather):

- Tow line, gloves, Mylar blanket, radiator coolant/anti-freeze and windshield wiper fluid
- Water to drink, high energy food and fruit
- Window scraper, chains and warm clothing

Personal preparation:

- Know the routes in advance (study a map).
- Check on road construction projects along planned routes.
- If camping or staying in hotels/motels, make reservations in advance.
- Determine number of miles to be traveled daily. (Normal average on major highways is 100 to 110 miles every two hours with 10 - 15 minute breaks every two to three hours and one hour stops for meals. Travel on secondary roads, which go through towns and cities, will take longer as will driving through mountains.)
- If one person will be doing all of the driving, six to eight hours driving in any one day should be considered the limit. When two or more persons can share the driving, total driving time should not exceed 10 to 11 hours.
- Be aware of "Down Time" between one and five p.m. and plan to take a break during that period.
- If crossing a desert area, plan to do so in the cooler morning hours.
- Since two out of three traffic fatalities occur at night, avoid driving after dark when visibility is limited and particularly after 11 p.m. when you are more apt to fall asleep while driving.
- Let a family member or trusted friend know where and how to reach you in an emergency.
- Be prepared to pay any large repair bill in case of a vehicle breakdown.
- Remember to take:
    - An extra set of keys
    - Insurance information
    - Money for expected and unexpected travel expenses
    - Vehicle owner's manual
    - Maps of local areas
- Determine approximate cost of fuel, meals, lodging and entertainment.
- Get a good night's sleep the night before the start of the trip.

Driver Education Classroom and In-Car Instruction Unit 5-12

Performance Objectives	Learning Activities	Resources
Students will describe how to reduce risk when entering an expressway.	Ask the class to identify clues a driver should search for in selecting the proper expressway entrance. Use Slide 5.11 and discuss the parts of an expressway entrance, using Fact Sheet 5.2 as a reference. Continue to use Slide 5.11 and discuss the steps for entering an expressway.	Slide 5.11 “Expressway Entrance Components” Fact Sheet 5.2 “Entering Expressway”

Driver Education Classroom and In-Car Instruction Unit 5-13

Content Outline

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. Also, be sure the solid yellow line is on the left-hand side of the vehicle.

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.

The steps for entering the expressway include:

a. Identify entrance at least 1/2 mile in advance
b. Check traffic in all directions
c. Signal, position in proper lane and adjust speed as necessary
d. Enter ramp and adjust speed
e. Identify weave or collector distributor lane
f. Identify adequate space gap for merging
g. Signal presence and intent to enter
h. Adjust speed and merge into travel lane (Remember exiting vehicles are to be given right of way at weave lane interchanges)
i. Adjust to travel speed
j. Check mirrors for following traffic

Driver Education Classroom and In-Car Instruction Unit 5-14

Performance Objectives	Learning Activities	Resources
Students will describe possible problems when entering an expressway.	Ask the class to list possible problems that may be encountered when entering an expressway. List these on a chalkboard or dry-erase board.	Chalkboard Dry-erase board
	Use Slides 5.12 through 5.14 and discuss, then show Video 5.1 and discuss. Compare student list to slides and discuss how to reduce the risk of these problems.	Slide 5.12 "Reducing Risk on the Entrance Ramp" Slide 5.13 "Reducing Risk in the Acceleration Lane" Slide 5.14 "Reducing Risk in the Merge Area" Video 5.1 "*Entering Expressway*" (31 seconds)

Driver Education Classroom and In-Car Instruction Unit 5-15

Content Outline

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:

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

Reducing risk on the entrance ramp:

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

Acceleration lane problems:

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

Reducing risk in the acceleration lane:

- Search ahead and for gap on expressway
- Prepare to adjust speed
- Pull ahead onto the shoulder if no gap is available

Merging area problems:

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

Reducing risk in merging areas:

- Search ahead and to the side
- Prepare to blend speed with traffic
- Change lanes smoothly

Driver Education Classroom and In-Car Instruction Unit 5-16

Performance Objectives	Learning Activities	Resources
Students will describe special characteristics and problems associated with a left merge onto the expressway.	Draw a left entrance ramp or marker and discuss with the students the different characteristics and problems of the left entrance ramp and merge.	Chalkboard Dry-erase board
Students will define a "weave lane" and describe special problems associated with "weave lanes."	Use Slide 5.15 and describe the characteristics of the "weave lane." Use Video 5.2 and discuss the dangers associated with "weave lanes". Refer to Fact sheet 5.1 for further information.	Slide 5.15 "Weave Lane" Video 5.2 "*Entering/Exiting Weave Lane*" (1 minute 10 seconds) Fact sheet 5.1 "Your State's Vehicle Law"
Students will describe special characteristics when driving on an expressway.	Discuss with the students the special characteristics associated with driving on an expressway.	
Students will describe the best lane of travel depending on the situation for expressways.	Use Slide 5.16 and discuss the characteristics of lane choice when driving on expressways.	Slide 5.16 "Choosing Expressway Lanes"

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 is greater. The search pattern is different in that search is directed to the right and over the right shoulder instead of over the left. Also, additional lane changes to the right may be necessary once on the expressway if your planned speed is less than traffic traveling in the left lane of the expressway.

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 traffic weave 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.

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 cause conflicts.

Lane choice is dependent upon several factors:

- The volume of traffic, type of traffic, speed and the planned exit.
- The far right lane has potential for conflicts with drivers entering and leaving the expressway.
- The center and/or far left lane is reserved for passing and high speed traffic. Trucks and buses may use the far right lane when climbing hills, as their speed is usually slower going uphill.

Driver Education Classroom and In-Car Instruction Unit 5-18

Performance Objectives	Learning Activities	Resources
Students will describe laws and speed adjustments necessary to reduce risk in expressway driving.	Discuss with the students the advantages and disadvantages of driving at the speed of other traffic on expressways. Ask the class for strategies to manage time, visibility and space as it relates to speed adjustments on the expressway. Use Slide 5.17 to lead the discussion.	Slide 5.17 “Increase Following Distance”
Students will describe procedures and situations regarding lane changes on the expressway.	Ask the students for situations that may cause a driver to change lanes on the expressway. Use chalkboard or dry-erase board to record answers. Then use Slide 5.18 and compare to student answers. Review the lane change procedure with the class.	Slide 5.18 “Lane Changes on the Expressway” Chalkboard Dry-erase board

Driver Education Classroom and In-Car Instruction Unit 5-19

Content Outline

Driving at the speed of traffic is the best way to establish and maintain a safe space around your vehicle. Avoid exceeding the legal posted speed.

Following distance is critical on the expressway. It is important to maintain a 3-4 second following distance. Keeping an open area to at least one side of the vehicle gives an escape route if the lane ahead becomes blocked. Also, maintain at least a 3-second space to the rear of the vehicle by controlling space to the front. Increase following distance when following large trucks or buses, motorcycles, driving in bad weather, being tailgated, driving a heavy load or pulling a trailer and entering/ exiting the expressway.

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. Searching 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 someone else to enter
- Following large or slow-moving vehicles
- Lane ahead becomes blocked
- Passing

Lane change procedure:

- Maintain safe following interval.
- Check highway and traffic conditions ahead, to the sides and behind.
- Select a safe gap in traffic.
- Signal.
- Check mirror blind spot in direction of lane change.
- Adjust speed and steer into lane.
- Cancel signal.
- Adjust speed to flow of traffic.
- Check mirrors for following traffic.

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.

Driver Education Classroom and In-Car Instruction Unit 5-20

Performance Objectives	Learning Activities	Resources
Students will describe the dangers associated with passing on expressways and the strategies used to reduce risk when passing.	Discuss with the students the dangers of passing on the expressway.	
	Use Slide 5.19 and review passing procedures with the students, then use Video 5.3 and discuss. Use fact sheet 5.1 as a reference.	Slide 5.19 "Passing on Multi-Lane Roads" Video 5.3 "*Passing on Multi-Lane Roads*" (34 seconds) Fact Sheet 5.1 "Your State's Vehicle Law"
Students will describe the driver's responsibility when being passed on the expressway.	Use Slide 5.20 and discuss the responsibilities of being passed.	Slide 5.20 "When Being Passed"

Driver Education Classroom and In-Car Instruction Unit 5-21

Content Outline

Passing is one of the most dangerous maneuvers a driver can attempt. High speed passing on expressways increases risk. High volume of traffic on expressways increases the chances of collisions. Passing may occur on the left or right. Again, more than two lanes heading in the same direction present special search technique challenges.

Passing and Being Passed on Two-Lane Highway:

Being Passed

a. Keep to right side of lane
b. Maintain speed, slow if appropriate to let other driver complete pass safely

Passing

a. Check oncoming and following vehicles, vehicles slowing ahead, vehicles or other high way users about to enter roadway from driveways, intersections or the shoulder
b. Check mirrors and head check for passing vehicles
c. When safe, signal intention to pass
d. Initiate pass at least two seconds behind vehicle to be passed
e. Steer smoothly into passing lane
f. Maintain or adjust speed as necessary
g. Search highway ahead and check mirrors
h. Make sure vehicle does not drift toward vehicle being passed
i. Continue in passing lane until complete front of passed vehicle is visible in rear view mirror
j. Signal intention to return to lane
k. Steer smoothly into lane, maintain or adjust speed as appropriate
l. Cancel turn indicator

Driver Education Classroom and In-Car Instruction Unit 5-22

Performance Objectives	Learning Activities	Resources
Students will describe risk-reducing strategies for exiting an expressway.	Use Slide 5.21 and discuss the areas of the expressway exit.	Slide 5.21 "Expressway Exit Components"
Students will identify possible exiting problems.	Use Slide 5.22 and discuss possible exiting problems. Ask the students how they would reduce risk for each situation.	Slide 5.22 "Potential Exiting Problems"
	Use Video 5.4 and continue discussion.	Video 5.4 "*Potential Exiting Problems*" (29 seconds)

Driver Education Classroom and In-Car Instruction Unit 5-23

Content Outline

Exiting the expressway should be a smooth procedure accomplished at an expressway 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 should 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 sign

Identify the exit needed early. Exits are marked with guide signs, usually one to two miles before the exit. The location of the exit number (left or right) on the top of the sign will give the driver a clue as to whether to exit to the left or right. 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.

Possible exiting problems include:

- "Weave lane" conflicts -- search early and communicate with the other driver
- Traffic stopped on the exit ramp -- search early and prepare to slow or stop
- Short deceleration lane -- search rear and slow more on expressway
- Very slow ramp speed -- slow more in deceleration lane

Driver Education Classroom and In-Car Instruction Unit 5-24

Performance Objectives	Learning Activities	Resources
Students will describe special roadway conditions that may be encountered on the expressway and the strategies to reduce risk when dealing with them.	Use Slide 5.23 and discuss the special conditions that may be encountered on expressways.	Slide 5.23 "Special Roadway Conditions"
Students will review the strategies for successful expressway driving.	Included Video: Use the video "*Freeway Driving*" as a summary to the strategies covered in the lesson.	Included Video: "*Freeway Driving*" (7 minutes)
	Make reading assignment.	Drive Right, Ch. 15 Handbook Plus, Ch. 4 How to Drive, Ch. 4 Responsible Driving, Ch. 3
Students will complete the Unit 5 Test.	Distribute, collect and grade Unit 5 Test.	Test Included

Special expressway conditions:

- **Expressways through cities** – The volume of traffic may increase dramatically. Speeds may slow to a crawl. Drive in the left or center lane to avoid merge conflicts in rush hour. Search for exits early and adjust position for exit.
- **Disabled vehicles** – When seeing a disabled vehicle ahead, reduce speed and increase the space between your vehicle and the disabled vehicle. This may involve changing lanes. Be alert for pedestrians, tow trucks and/or police vehicles.
- **Work Zones** – Search ahead for warning signs. Adjust speed and adjust position to maintain a space around your vehicle.
- **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.
- **"Emergency and official vehicles only" crossover** - This is a transverse roadway or opening that connects the separate roadways of a divided highway. It is to be used by emergency and official vehicles only. Watch for vehicles entering the roadway from a crossover.

Fact Sheet **5.1**

Your State's Vehicle Laws

Instructors should provide information about their state's vehicle laws as they apply to this Unit.

Fact Sheet **5.2**

Entering Expressway

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. Drivers must search ahead for traffic on the ramp as well as for a gap in traffic on the expressway.

Acceleration lane:

This area is used to 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.

Merging area:

This is the area to move onto the expressway. Attempt to merge at the speed of traffic. Avoid exceeding the posted legal speed limit.