

Driver Education Chapter 16

Driving on Highways

16.1 Classification of Highways

Three Classifications of Highways System

Interstate Highway System

US Highway System

State Highway System

Interstate Highway System

Controlled access. Every access be fully controlled

Interchanges—places where drivers can cross over or under traffic or leave.

Designed for high speeds, multi-lanes in opposite directions.

Grade Elevation—bridges and tunnels are used to direct traffic over or under other travel lanes.

Some freeways have tolls—the word free means traffic can flow freely.

Expressways—other controlled access highways. Also include turnpikes, parkways, super-highways, expressways.

An Expressway may have a non-controlled access points—This means they could have traffic lights, intersections, driveways.

Turnpikes are usually associated with tolls

US Highway,,1st highway network that connected states. Most of the state highways have non-controlled access. Traffic is slower and more dangerous.

State Highways—Highway system is a network that exists within the state.

Freeway interchanges—Most common are cloverleaf, diamond, trumpet, and all-directional—names based on shape. P 323-324.

16.2 Entering Controlled-Access Highway

You should have a travel plan when you use a controlled access highway.

Controlled Access Entrances has 3 parts

Entrance Ramp Provides access and allows you to merge into traffic

Acceleration Lane—get speed up to the traffic flow.

Merging area-Travel lane you move into from the acceleration lane.

If no acceleration lane find a **hole in the traffic** to get into

Ramp Meter—has lights that tell you when to go to control traffic

Acceleration Lane---Don't stop on the freeway unless traffic is stopped.

Merging—Adjust your speed to fit in

Left Entrance Ramp—Check traffic—you are entering in the fast side of traffic.

Steps for Entering from the entrance ramp

1 Check your front and rear zones. Do not accelerate until you are in the acceleration lane and have selected a gap or hole.

2 When your vehicle is at a 45 degree angle to the highway, signal, and make quick glances through your left outside review mirror and over your left shoulder to find a gap in traffic. While looking in you left- outside mirror, move your head about 8 inches forward and slightly away from the mirror to get a better view of traffic.

3 Once you are in the acceleration lane, decide between which vehicles you will enter. Increase your speed to time a smooth merge.

4 As you enter the merging area, adjust your speed to match the traffic flow.

5 Once on the highway, cancel your signal and adjust to the speed of traffic.

6 Position your vehicle with 3 or more seconds of following distance.

16.3 Strategies for Driving on Highways

Applying the IPDE Process and Zone Control

Identify—Higher speeds need visual information farther ahead

Don't get trapped around large vehicles

Predict—Anticipate conflicts, construction areas be prepared

Decide—Higher speeds need quicker decisions. Also intersections demand high attention.

Execute—Signal early and maintain 3 second distance—Always leave an escape path

Lane Choice—Generally drive in the right and pass on left. During heavy traffic around interchanges you may want to move over a lane to the left.

Reversible Lanes—Traffic can travel in either direction. Used in cities for commuters during high traffic hours.

HOV—High Occupancy vehicle for buses and vehicles

HOT—High Occupancy Toll lanes—Pay to drive in this lane with 1 person

Speed Limits—Maximum speed may travel in ideal conditions.

Common speed—speed used by most drivers

Blind Spots—left and right mirrors have these

Tailgating—to close—encourage them to pass by reducing speed.

Changing lanes—Avoid changing lanes too often and weaving

Passing and Being Passed—Safer than on a 2 lane. Usually pass on left

Signal lane changes, make sure you check the blind spots

Be alert for aggressive drivers, tired drivers, stalled vehicles, construction,

16.4 Exiting Controlled Access Highways

Deceleration lane—added lane to slow your vehicle

Exit Ramp—deceleration lane leads to exit ramp.

Steps for Exiting

1 Check front and rear zones for traffic

2 Signal and move into lane position 3 for right side exits. Change only 1 lane at a time. Do not slow down until you are in the deceleration lane.

3 Move into deceleration lane

4 Turn your signal off and tap your brake lights to warn drivers behind that you are slowing. Slow gradually keep 3 or more seconds of space ahead.

5 Check your speed and check line of sight and path.

Sometimes deceleration lanes are short so you will have to

Judge length of the lane, identify the exit ramp speed, check your speed, check traffic behind you

16.5 Highway Problems and Features

Save Driving

Highway Hypnosis—inattentive and drowsy

Velocitation—After driving on a freeway—exiting thinking you are driving slower than you really are.

Disabled vehicles—conflicts—Don't stand on highway

Roadways—watch for construction sites

Beltway(around a city), loops(around a city), spur(branch going into the city)

Toll Plaza—stop and pay booth

<https://www.youtube.com/watch?v=p4u0Z4OxMDY> entering interstates

<https://www.youtube.com/watch?v=txg6RMEYzE4> entering exiting

<https://www.youtube.com/watch?v=dYUxQPrpCsY> driving on the freeway