



# **Virginia School Bus Driving Training**

## **Driving Fundamentals**

# Successful Driving

- Operational Skills

Drivers must have the skill set needed to safely operate the school bus.

- Vehicle Awareness

You must be constantly aware of the dimensions of the school bus. You must understand its operation.

# Types of School Buses



## Type A

- Entrance door is behind the front wheels
- Type A1 – 10,000 pounds or less
- Type A2 – greater than 10,000 pounds
- Constructed utilizing a stripped chassis

## Type B

- Entrance door is behind the front wheels
- Type B1 – 10,000 pounds or less
- Type B2 – Greater than 10,000 pounds
- Utilizes a chassis with a hood and front fender assembly





# Types of School Buses

## Type C Bus





- Entrance door is behind the front wheels
- Utilizes a chassis with a hood and front fender assembly





## Type D Bus

- Entrance door is ahead of the front wheels
- Constructed utilizing a stripped chassis

# School Bus Size

Bus Type	<b>A</b> 	<b>B</b> 
Weight	Up to 10,000 Pounds	10,000 to 26,500 Pounds
Height	9.1 Feet	10.3 Feet
Width	93 Inches	93 Inches
Wheelbase	138 Inches	138 to 254 Inches
Turning Radius	25 Feet	20.3 to 39.1 Feet
Length	13 to 17.5 Feet	10.8 to 21.7 Feet

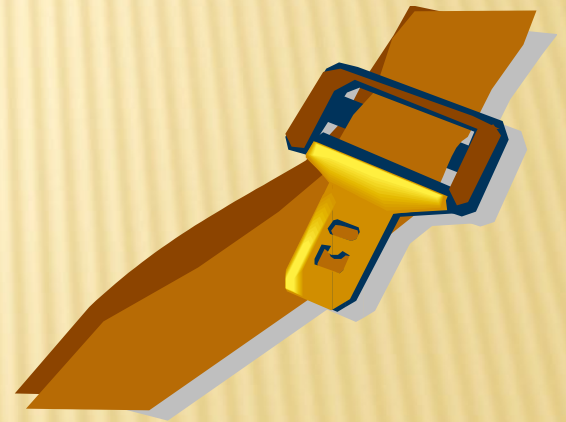
# School Bus Size (Continued)

<b>Bus Type</b>	<b>C</b> 	<b>D</b> 
<b>Weight</b>	18,000 to 35,000 Pounds	27,800 to 37,000 Pounds
<b>Height</b>	9.9 to 10.4 Feet	9.9 to 10.4 Feet
<b>Width</b>	93 to 96 Inches	93 to 96 Inches
<b>Wheelbase</b>	149.6 to 276 Inches	136 to 276 Inches
<b>Turning Radius</b>	23 to 38 Feet	21.3 to 34.2 Feet
<b>Length</b>	20.9 to 38.9 Feet	27.3 to 39.11 Feet



# Starting the Bus

1. Adjust driver's seat
2. Adjust mirrors (FMVSS 111)
3. Fasten seatbelt-(it's the law)
4. Set parking brake
5. Place transmission in neutral
6. Depress clutch (If applicable)
7. Set choke (If applicable)
8. Turn key
9. Check gauges



# Gauge Check



**Oil** – Check operation (See owner's manual)

**Fuel** – Enough to complete run (know local policy)

**Air pressure** – 100 + pounds per square inch

**Voltmeter** – Check for operation

**Engine Temperature** – Check for operation



# Starting and Accelerating

- Apply service brake and release parking brake
- Place bus in appropriate gear
- “Drive” for an automatic
- Check mirrors for approaching traffic and signal your intentions
- Depress accelerator



# Smooth Stopping

Requires you to .....think and plan.

**Total Stopping Distance =**

(Perception Distance)

+

(Reaction Distance)

+

(Brake Lag)

+

(Braking Distance)



# Braking

Braking distance changes with road conditions and speed

- Braking distance is longer on a wet surface than a dry surface
- Braking distance at 40 mph is four times longer than at 20 mph
- As speed doubles - braking distance increases by four



# Steering and Turning

## Drivers Must!!!

- Assume correct steering position
- Prepare for turns by looking ahead 12 - 15 seconds
- Use your mirrors
- Make turns smoothly and correctly by using the proper steering method: Hand over hand or Push - Pull

# The Perfect Turn

Entire bus clears the curb at the corner

Bus stays as nearly as possible in its  
own lane



# Making a Right Turn

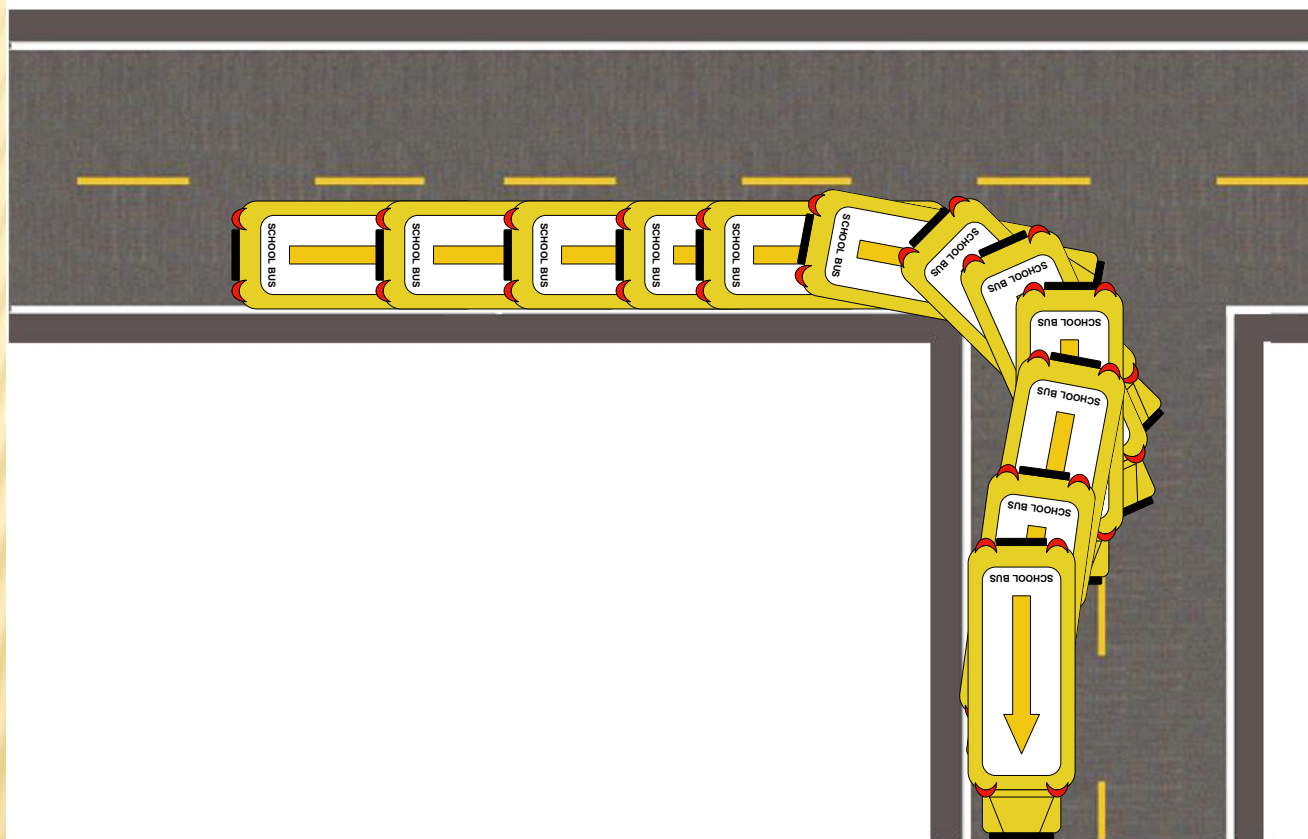
- Check the traffic surrounding the bus.
- Give a signal within the designated distance for the current speed.
- Move to the far right-hand lane and slow down.
- Observe and obey all traffic signs and signals.
- Reduce speed to 10 mph or less; turning slowly gives the driver and others time to avoid problems.
- When making a turn at an intersection, allow sufficient space to avoid running over the curb or striking parked vehicles.



# Making a Right Turn

- Check for pedestrians and check traffic left and right – yield to all pedestrians and vehicles.
- Turn wide as needed to complete the turn, and don't turn wide to the left at the beginning of the turn unless necessary.
- Complete the turn; never change gears while making a turn.
- Deactivate the signal light after completing the turn, if necessary.

# Making a Right Turn (Continued)

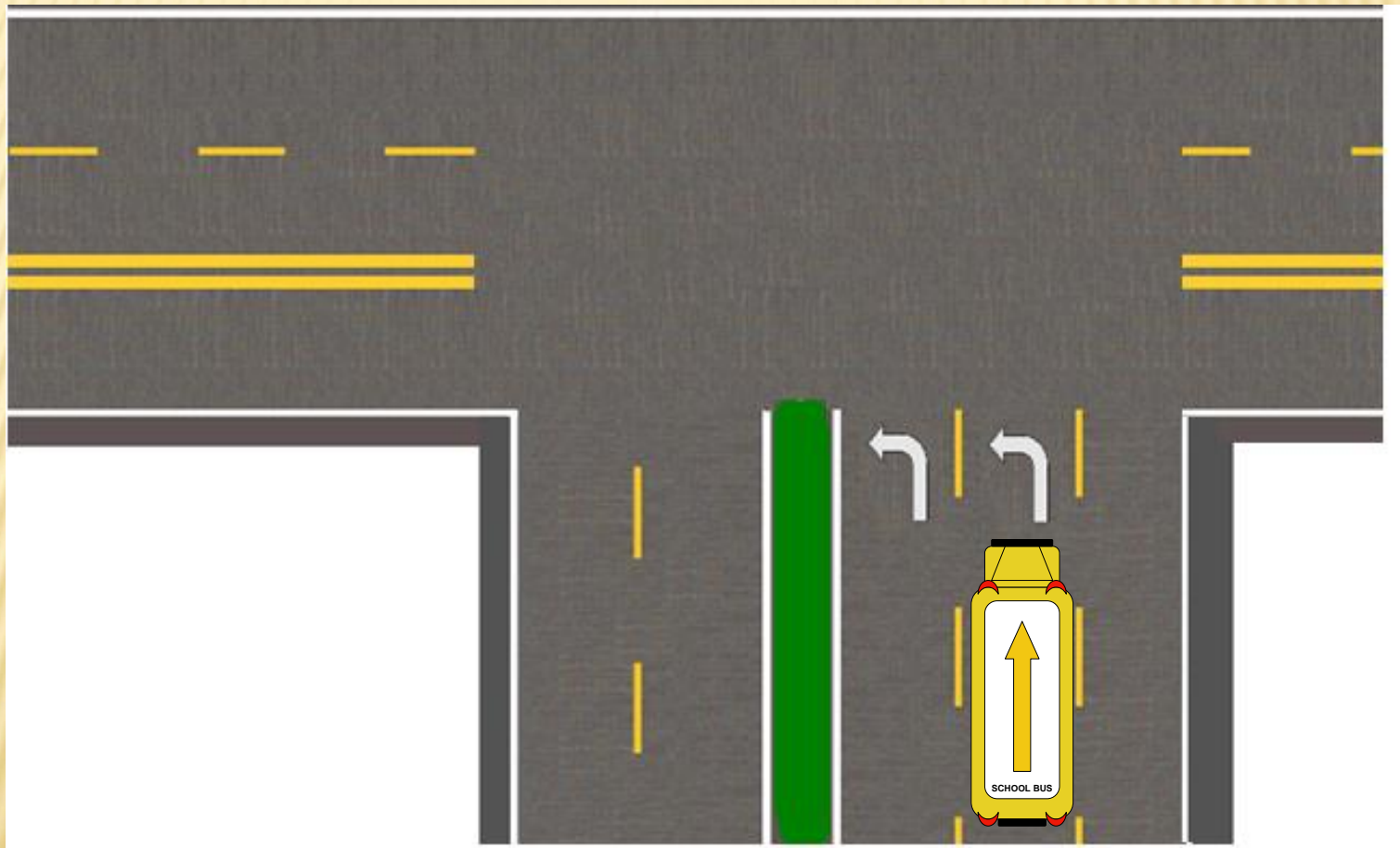


# Making a Left Turn

- Check traffic
- Signal intention
- Move to far left lane or right most lane, if two left turn lanes.
- Reduce speed to 10 mph or less
- Judge space to avoid curb & parked vehicles
- Check for bicyclists & pedestrians
- Check traffic left, right & straight ahead
- Yield to all pedestrians and other vehicles
- Reach center of intersection and start turn
- Avoid changing gears while making turn
- Deactivate signal light



# Making a Left Turn (Continued)



# BACKING

- Activate the four-way hazard lights at least 100 feet before stopping.
- Stop the bus in the proper position to back.
- Get out and walk around the vehicle (if it is safe to do so). Check clearance to sides and overhead.
- Post a lookout on the inside - back of the bus to give warning of obstacles, approaching persons or other vehicles. Signal for quiet.
- Before and during the backing maneuver constantly check all mirrors to see that the way is clear – if in doubt don't back.
- Tap horn and check mirrors again.
- Back slowly and smoothly.

# Backing

## Off Set Backing

The same as the steps for backing except the final step:

- Back slowly and smoothly into the opposite lane until the front of the vehicle has passed the parking boundary



# Backing

Do not back the bus unless it is absolutely necessary. Backing causes many collisions.

Backing carries the highest percentage of preventable crashes.

**If in doubt, do not back the bus.**

**Find a safe location with adequate space to maneuver the school bus.**

# The Backing Rule

**Load Before Backing  
and  
Back before Unloading**

# **Making a turn-around is NOT recommended!!!!**

## **If you must make a Turn-around**

1. Activate the four-way hazard lights at least 100 feet in advance of a turnaround.
2. Give a brake signal indicating an intention to stop and stop the bus in proper position on the roadway.
3. The bus should be stopped one bus length ahead of the road it is to be backed into.
4. Check all traffic in the vicinity of the bus.
5. If traffic is present, wave it around the bus, if safe.
6. Back into the road checking mirrors constantly and using a safety patrol or designee observing from the inside back of the bus to give warning of obstacles, approaching persons or other vehicles – if in doubt don't back.
7. After checking traffic, re-enter the roadway with caution.



# Parking the Bus

1. When the bus is parked on level ground or an upgrade, shift the gear to low and turn the front wheels away from the curb.
2. When the bus is parked on a downgrade, shift the gear to reverse and turn the front wheels toward the curb or the edge of the road.
3. Turn off the ignition and remove the key.
4. Release the clutch and set the parking brake.
5. Whenever possible the driver should park the bus in a manner that eliminates backing.

# Parallel Parking the Bus

1. Making certain to know the size of the bus you are driving.
2. Signal your intentions with left or right signal light depending on the side you wish to park.
3. Line the bus parallel with the parked vehicle, positioning your bus about 3 feet away .
4. Activate the four way hazard lights, checking mirrors to make certain you are clear to begin backing.
5. With the transmission in reverse slowly begin to back the bus.

# Parallel Parking the Bus

6. Turning the steering wheel hard in the opposite direction you wish to back.
7. Visually checking in front of and around the bus often, continue backing the bus until it is predominantly in the parking space.
8. Slowly move forward to straighten the bus out.



# Positioning the Bus on the Roadway

- Parking lanes are for emergency vehicles or emergency conditions
- Drive in the farthest lane to the right when possible
- On unmarked roads, position bus to the right of the center of the road
- Rural roads may have weak outer edges and soft shoulders
- **Use safe following distances**

# Entering the Flow of Traffic



The speed of the roadway will help you  
determine a suitable gap

**R E M E M B E R !!**

The bus does not accelerate rapidly

# Intersections

- Give the right-of-way to all pedestrians
- Obey all traffic signs, signals and laws.
- Approach intersections with caution and observe all surrounding traffic. The driver should be prepared to stop if necessary even though they may have the right-of-way.



# Following Distance Rule

**0 – 40 mph**

1 second for every 10 feet of your vehicle

**Over 40 mph** Add 1 second

**EXAMPLE 0 – 40 mph**

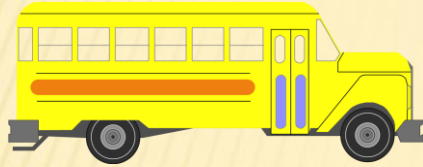
40 ft. vehicle = 4 seconds

**Over 40 mph**

40 ft. vehicle = 5 seconds

(VA. DMV Manual)

# Outside Cities and Town



Keep at least 200 ft.  
behind other trucks and buses

**N E V E R!!!**

Follow another vehicle  
Closer than one bus length

# Passing

Generally, the school bus driver will not have to overtake and pass other vehicles. But when it is necessary, the driver should pass only where it is permitted, pass on the left at a safe distance.





# Passing

- ✗ Avoid passing or running side-by-side with another bus on the highway.



# Passing



- Never pass another vehicle that is weaving, passing other vehicles, pedestrians, cyclists or animals
- Passing is prohibited on hills, curves, at intersections or at or near railroad crossings
- Always use good judgment when approaching and passing slow moving vehicles

# Being Overtaken and Passed



- Stay in right lane
- Continue at same speed or decrease
- Allow the vehicle to pass

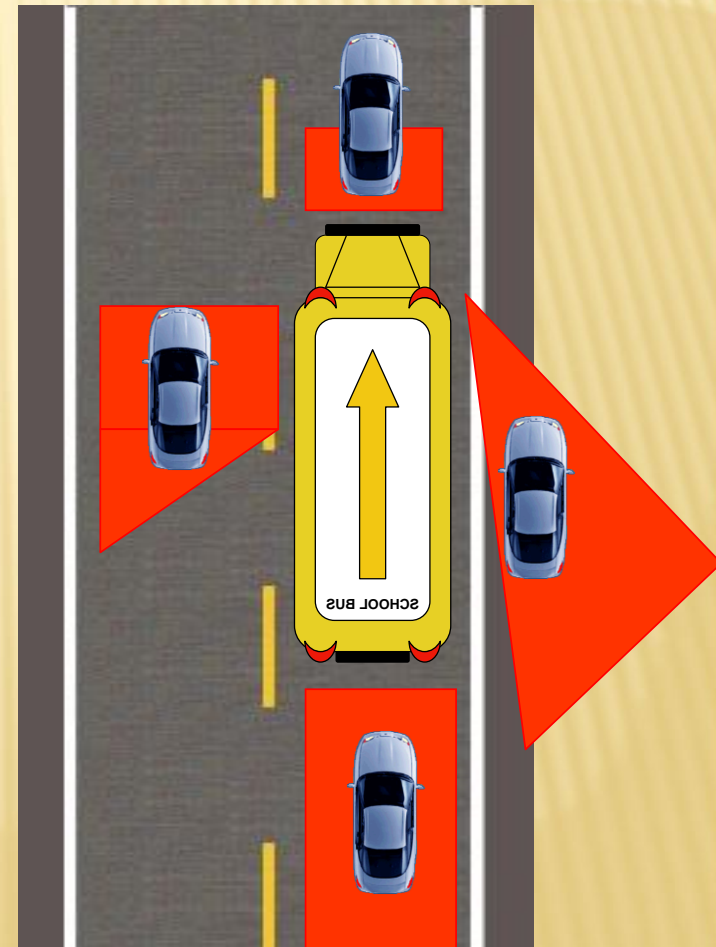


# Blind Spots

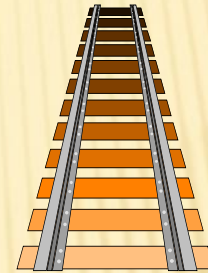
Check for Blind Spots

Note: Properly adjusted mirrors are crucial

There are danger areas around larger vehicles where crashes are more likely to occur. Blind spots on the side, front and rear also include areas where cars and other vehicles disappear from the driver's view.



# Railroad Crossing



- Tap brake to warn other drivers
- Check mirrors
- Activate the four-way hazard lights
- Stop within 50 feet, but not less than 15 feet from railroad crossing
- Place transmission in neutral or park
- Press service brake or set park brake
- Keep children quiet

# Railroad Crossing



- Turn off all Warning lights
- Open entrance and driver's window
- Listen and look carefully in both directions
- When safe to cross, close entrance doors and turn off four-way hazard lights
- Put bus in gear that will enable crossing without stalling
- Cross tracks without changing gears



# **Speed Limits for School Buses**

**The maximum speed limit for school buses shall be 45 miles per hour or the minimum speed allowable, whichever is greater, on any highway where the maximum speed limit is 55 miles per hour or less, and 60 miles per hour on all interstate highways and on other highways where the maximum speed limit is more than 55 miles per hour.**

# Driving on School Grounds



- Stay alert and proceed slowly and cautiously
- Stop at designated place for loading and unloading
- Follow road rules
- **Do Not** deactivate warning lights when loading and unloading
- **Do Not** pass other buses while they are loading
- **Check all mirrors before any vehicle movement**
- Leave school grounds safely and orderly

# Driving under Special Conditions

Driving conditions vary greatly by location.

Special conditions put special responsibilities on the driver. The expert driver modifies driving approaches under unfavorable driving conditions.





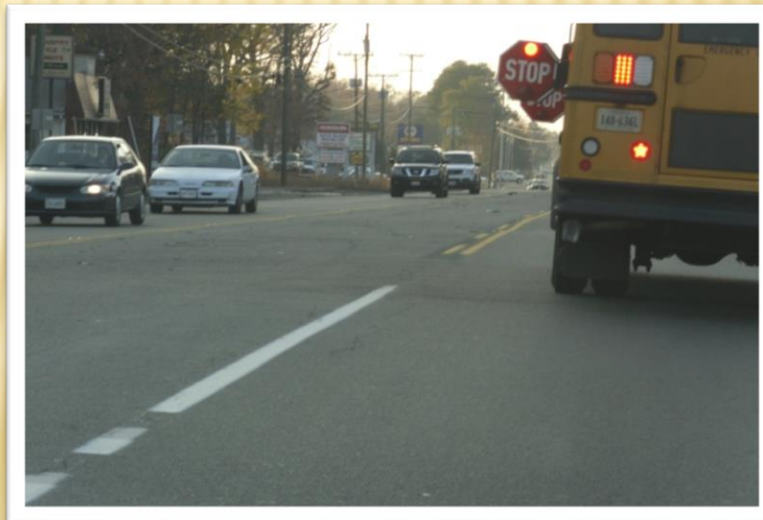
# Rural Driving

- After dark use high-beams when there is no opposing traffic
- Drive with caution in areas with deer crossing signs
- Take caution on narrow roads



# Urban Driving

- Large frequency of intersections
- Limited escape routes
- Drivers must keep their vehicle within their travel lane
- Speed of the vehicle should be consistent with traffic



# Night Driving

1. Prepare your vehicle for night driving. Check and clean headlights, taillights, signal lights and windows
2. Lights will not help you see better in early twilight, but they'll make it easier for other drivers to see you.
3. Reduce your speed and increase your following distances.
4. Don't overdrive your headlights.



# When Approaching Pedestrians or Animals

- Put headlights on low beam
- Decelerate
- Be prepared to take action for pedestrians



# Expressway Driving

- Be sure you are entering the correct ramp
- Check traffic around you, signal and search for gap
- Accelerate speed to blend into traffic smoothly
- Use caution as you merge
- Turn off signal and adjust speed after merging into traffic

# SIPDE TECHNIQUE

## **Search**

- Search aggressively for potential hazards.

## **Identify**

- Locate hazards and potential conflicts.

## **Predict**

- Anticipate how the hazard may affect you.

## **Decide**

- Determine how to reduce the hazard.

## **Execute**

- Carry out your decision.



# Activity Trips

- Go over route prior to trip
- Prepare necessary reports
- Check for unauthorized passengers
- Don't allow any object to block emergency exit
- Designate a teacher to maintain order
- After reaching the destination let passengers know when and where they should return to the bus
- Be sure that only authorized persons board the bus
- Secure bus
- Adhere to schedule
- Inform passenger of emergency procedures

**Click link below to complete the Driving Fundamental Quiz and then click submit.**

## **Driving Fundamental Quiz**

