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# IOWA DRIVER'S LICENSE MANUAL



VIEW THE IOWA DRIVER'S LICENSE MANUAL ONLINE AT
IOWADOT.GOV/DRIVERSMANUAL



Kim Reynolds, Governor of Iowa

## IMPORTANT MESSAGE TO DRIVERS

Getting behind the wheel for the first time can be a scary, but exciting, experience. Having the freedom to drive yourself opens up a whole new world of possibilities, but being prepared and knowing the rules of the road before you turn the key will enhance safety for all of us who share the road.

Reading, understanding, and implementing the elements contained in this driver's manual will set you on your way to becoming a safe driver. The details in the manual will explain more, but following these basic safety rules will get you started.

- Buckle up, no matter where you're sitting in the vehicle.
- Obey the speed limit.
- Give your full attention to the task of driving.
- Drive sober.

Thank you for taking the time to learn the practical elements in this manual and combine those with practice behind the wheel. Those two learning experiences and your commitment to becoming a safe driver are appreciated by all those who share Iowa's roadways.

## VISITING A DRIVER'S LICENSE AND ID SERVICE LOCATION

There are service locations all throughout the state at Iowa DOT Service Centers and County Treasurer's Offices. You can visit any location; It doesn't have to be the one closest to where you live. In addition, some services, such as license renewal, are available online if you are age 18 or older and meet other requirements.

### SCHEDULE AN APPOINTMENT AT A DOT LOCATION:

www.iowadot.gov/service-selector

### AT A COUNTY TREASURER'S OFFICE:

Use the website below to contact the location you plan to visit to see how they are conducting business.
www.iowadot.gov/mvd/iowa-dot-locations

### ONLINE:

Check to see if you are eligible for online services.
www.mymvd.iowadot.gov

**This is the ONLY place you can renew your license online. There are several websites out there selling information that we provide for free. They make you think you're getting a new driver's license, but you're not.**

### DO YOU NEED THIS MANUAL IN A DIFFERENT LANGUAGE?

This manual is available in additional languages at:
iowadot.gov/mvd/driverslicense/driverslicense/dlmanual

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CHAPTER 1

# YOUR DRIVER'S LICENSE

## 1.1 WHO NEEDS AN IOWA DRIVER'S LICENSE?

In Iowa, anyone operating a motor vehicle, motorcycle, or moped on public roads is required to have a permit or license. You are considered an Iowa resident for purposes of driver's licensing if you have done at least one of the following:

- Registered to vote in this state.
- Enrolled your child in an Iowa public school.
- Accepted a permanent job in Iowa.
- Lived in Iowa continuously for 30 days.
- Filed for a homestead tax exemption or military tax exemption on property in Iowa.
- Receive public assistance from the state of Iowa.

You do NOT need a driver's license if you are:

- Driving a military vehicle while on duty with the U.S. Armed Forces.
- Driving farm equipment between the home farm and any nearby farmland or farm operation within two miles.
- Driving with a current license from your home state or country while in Iowa as a visitor or student.

VISIT **IOWADOT.GOV** TO LEARN ABOUT:

- ✓ When to renew your license and how to do it.
- ✓ The Graduated Driver's License Program (for drivers under age 18).
- ✓ Taking your knowledge test at home or school (Skip the Trip)
- ✓ Specific types of driver's licenses such as moped licenses and CDLs.






Study online with our practice test:
**www.iowadot.gov/mvd/driverslicense/manuals-and-practice-tests**

## 1.2 CARRYING YOUR LICENSE, INSURANCE, & REGISTRATION

You should always have your license or permit with you while driving. Drivers of vehicles in Iowa must also carry current proof of registration and an insurance card (printed or electronic) to verify proof of liability insurance. Failure to do so could result in fines and possible impoundment of the vehicle.

## 1.3 REQUIRED HEALTH SCREENINGS AND TESTS

When you apply for your license, you will be required to do the following:

- Complete a vision screening.
- Pass the knowledge test.
- Show that you've successfully completed an Iowa-approved driver's education course (if you are under 18).
- Pass a driving test (not required if you satisfy the driver's education course requirement).




CHAPTER 2

# TRAFFIC SIGNS & RULES OF THE ROAD

## 2.1 TRAFFIC SIGNS

Traffic signs advise of traffic laws, hazards, location, directions, and where services are located. The shape and color of traffic signs give clues to the type of information they provide.

### STANDARD COLORS

**RED**

Stop, yield, or do what is shown on the sign.

**GREEN**

Direction. Indicates where a place is, or how far a place is from where you are.

**BLUE**

Services for travelers. Directs you to places such as rest areas, tourist sites, hospitals, lodging, fuel stations, restaurants, and tourist attractions.

**YELLOW**

General warning.

**FLUORESCENT YELLOW-GREEN**

Pedestrian, bicycle, and school warning signs.

**WHITE**

Regulatory. Provides information regarding enforceable laws and ordinances.

**ORANGE**

Road work, temporary traffic control, and maintenance warnings. Be sure to watch for changing speed limits and workers on the road.

**BROWN**

Recreation and cultural points of interest. Provides direction to historical sites, parks, or recreational areas.

**FLUORESCENT PINK**

Warning and guide signs for incident management such as crash clean up, debris removal, traffic, etc.

## STANDARD SHAPES




### OCTAGON

Shape is reserved for a stop sign only. Come to a full stop at an intersection controlled by this sign.




### DIAMOND

Warning. Alerts you to special road hazards. Words or pictures on the sign will show you why you need to slow down or use extra caution.




### EQUILATERAL TRIANGLE

Yield the right of way.




### CIRCLE

Railroad crossing ahead.




### RECTANGLE

Is used for regulatory, guide, and warning signs.



### PENTAGON

School crossing. Signs mark school areas and school crossings.




### PENNANT

This sign will be on the left side of the road. It warns you of a no passing zone.




### CROSSBUCK

Railroad crossing signs are placed at each crossing. A number sign under the crossbucks shows how many sets of train tracks you must cross.

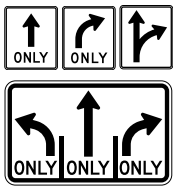
# 2.2 REGULATORY SIGNS

These signs provide information about rules for traffic direction, lane use, turning, speed, parking, and other special situations. Some regulatory signs have a red circle with a red slash over a symbol. These indicate you cannot do something; for example, no left turn, no right turn, or no U-turn.




## SPEED LIMIT SIGNS

Speed limit signs indicate the maximum or minimum safe speed that is allowed. Maximum speed limits are for ideal driving conditions. Sometimes you must reduce your speed when conditions require it, such as when the roadway is slippery (during rain or snow) or it is difficult to see clearly down the road (during fog). Some high-speed roads have minimum speed limits. If this minimum speed is too fast for you, then you should use another route.




## LANE CONTROL SIGNS

These signs mark where you can go and where you can turn, and often use an arrow symbol. The signs are along the road or hanging over the road. Sometimes white arrows may also be painted on the road.







## NO PASSING SIGNS

These signs mark where it is not safe to pass another vehicle. The no passing zone sign is located at the beginning of the no passing zone. Passing areas are based on how far you can see ahead. Where passing is allowed, you may do so only if it is safe. No passing zone pavement markings are described on page 45.




## EMERGENCY NOTIFICATION SYSTEM (ENS) SIGN

This blue sign is posted on both sides at each railroad crossings and provides critical information for reporting a problem or emergency on or near the tracks. It includes a phone number to contact the railroad and a unique crossing identification number. Drivers should use the phone number and crossing ID to report stalled vehicles, malfunctioning signals, or any other hazardous situation at the crossing.




## STOP SIGN

A stop sign means you must come to a full stop and wait until crossing vehicles and the cross-walk are clear before proceeding. Stop at the stop line if one is present. If necessary, you may then pull forward to the stop sign or the edge of the intersection and then proceed when it is safe to do so.




## YIELD SIGN

A yield sign means you must slow down and yield the right of way to traffic in the intersection you are crossing or roadway you are entering.




## DIVIDED HIGHWAY

The road ahead is divided. This sign directs traffic around an island or barrier.




## ONE-WAY

Traffic moves only in the direction of the arrow.




## DO NOT ENTER SIGN

You will see this sign at roadway openings you are not to enter. You will see them at exit ramps, in crossovers on divided roadways, and at numerous locations on one-way roads.




## WRONG WAY

You made a wrong turn and have entered a lane of oncoming traffic. Remove your vehicle from the traveled portion of the road and get stopped and turned around as quickly and safely as possible.

# 2.3 WARNING SIGNS

Warning signs are yellow with black lettering or symbols and most are diamond-shaped. These signs warn you to slow down and be prepared to stop if necessary; a special situation or hazard is ahead. Some common warning signs are shown below.



### INTERSECTION/ CROSSROAD

There is another road ahead that crosses the road you are on. Watch carefully for cross traffic in your path.



### SIGNAL AHEAD

These signs are used on roads with higher speeds. Be ready for an intersection and a stop light.



### MERGING TRAFFIC

If you are on the main road and see this sign, be prepared for other vehicles blending into your lane.



### TWO-WAY TRAFFIC

Keep to the right because you are leaving a one-way road and entering a two-way road.



### DIVIDED HIGHWAY BEGINS

You are getting close to the place where two-way traffic will be divided by a center strip.



### DIVIDED HIGHWAY ENDS

Two-way traffic will no longer be divided by a center strip. Watch out for oncoming vehicles.



### HORSE-DRAWN VEHICLE

Be alert for slow-moving, horse-drawn vehicles on the roadways. Reduce your speed and pass slowly.



### LANE ENDS

Two lanes of traffic will soon become one lane of traffic. Traffic must yield when merging.



### FARM MACHINERY

Be alert for slow-moving, farm equipment on the roadways. Reduce your speed and pass slowly.



### PEDESTRIAN CROSSING

Watch out for people walking, running, riding, or using wheelchairs or low-speed micromobility devices. *See section 2.4 for information on pedestrian conveyance.*



### DEER CROSSING

There may be deer trying to cross the roadway in the area. Slow down and watch carefully.



### HILL

This sign is a warning to all vehicles that the road ahead goes down a hill. You should check your brakes before going down the hill.



### T-INTERSECTION AHEAD

The road you are on does not go straight ahead. Prepare to turn right or left.



### SCHOOL BUS STOP AHEAD

You are nearing an area where a stopped school bus will pick up or drop off passengers. Watch for children. Be prepared to stop.



### GRADUAL CURVE

Road ahead curves gradually. Be prepared for the change in direction.



### SLIPPERY WHEN WET

Road ahead becomes slippery in wet weather. Slow down under these conditions.



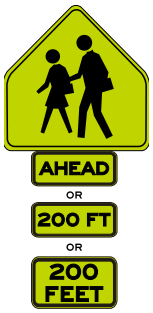
### CHEVRON SIGN

Used in addition to the curve signs when there is a need to draw added attention to a change in the road's direction.




### RAMP SPEED

The recommended speed on an exit ramp.




### ADVANCE SCHOOL CROSSING

You are nearing a school area with a crossing. Watch for children and the marked school crossing. The color of this sign may be yellow.

## 2.4 PEDESTRIAN CONVEYANCE

In 2024, a bill was passed to update the Iowa traffic code related to crosswalks. The new law states that vehicles must yield the right of way to pedestrians on foot and those using any human powered device, also known as a pedestrian conveyance.

**Pedestrian conveyances** are defined as any human-powered device by which a pedestrian may move other than by walking or by which a pedestrian may move another person. Pedestrian conveyances include, but are not limited to:

- Wheelchairs
- Strollers
- Skateboards
- Scooters
- Electric personal assistive mobility devices

***NOTE: Any time we refer to "pedestrian(s)" in this manual, we are referring to pedestrians AND pedestrian conveyances.***

**Figure 2.1: Pedestrian Conveyances**



## 2.5 SLOW-MOVING VEHICLE SIGN



A reflective orange triangle on the rear of a vehicle means it is traveling 35 mph or less. You may see this sign on road maintenance equipment, farm vehicles, or horse-drawn wagons.

## 2.6 GUIDE SIGNS




Guide signs show directions and distance to various locations, or areas such as cities, airports, state lines; or to places of interest such as national parks, historical areas, or museums. Mile markers show the number of miles from where the Interstate route entered the state you are traveling in. They can be used to calculate how far you are from your exit or destination and give your exact location in an emergency.

## 2.7 SERVICE SIGNS




Service signs show the location of various services; such as rest areas, fuel stations, campgrounds, or hospitals.

## 2.8 ROUTE SIGNS




Interstate U.S. Highway Iowa Route

The shape of a route sign indicates the type of roadway it is - interstate, U.S. highway, Iowa route, county road, etc. During a trip, follow the signs to stay on your route.

## 2.9 TRAFFIC SIGNALS

In addition to traffic signals, traffic control can be provided by law enforcement, highway personnel, or school crossing guards. You must follow directions from these persons.



Standard traffic signal



Arrow signal head

**Solid red**
Come to a complete stop.

**Flashing red**
Treat it the same as a stop sign.

**Solid yellow**
Do not enter the intersection if you can stop safely. If you cannot stop safely, proceed through the intersection with caution.

**Flashing yellow**
Proceed with caution. Yield to vehicles and pedestrians and proceed when it is safe.

**Solid green**
Go, but only when the intersection is clear. Yield to vehicles and pedestrians in the intersection. When the light changes, traffic may be caught in the intersection, and you must give them time to clear.

**Steady red arrow**
Drivers turning left or right must stop.

**Steady yellow arrow**
The left or right turn signal is about to turn red. Do not enter the intersection if you can stop safely. Complete your left or right turn if you are already within the intersection.

**Flashing yellow arrow**
Yield to oncoming traffic and pedestrians; then turn left proceeding with caution. Oncoming traffic has a green light.

**Steady green arrow**
Drivers can proceed with the left or right turn. Oncoming traffic must stop. Do not go straight. Drive only in the direction of the arrow. Yield the right of way to other vehicles and pedestrians already in the intersection.

# 2.10 RAILROAD CROSSINGS

Use extra caution at railroad crossings and never stop your vehicle on the railroad tracks. Trains cannot stop quickly.

Advance warning signs and pavement markings indicate railroad tracks cross the road ahead. As you're approaching tracks, eliminate distractions, put your windows down, and turn off your music. ***See figure 2.2 for common railroad crossing signs and signals.***

Highway-railroad crossings have the name of the railroad and a number to call posted in case of emergency. If you become aware of a signal malfunction or other dangerous situation (such as a stalled vehicle, other obstruction, or track damage), call the number posted to notify the appropriate railroad *(see bottom right image of ENS sign).*

## ACTIVELY PROTECTED RAILROAD CROSSINGS

Actively protected railroad crossings are equipped with lights and/or gates. If the lights are flashing or gates are down, it means a train is approaching. Always obey these warning signals. Do not cross when lights are flashing or try to go around the gate.

## PASSIVELY PROTECTED RAILROAD CROSSINGS

Passively protected railroad crossings do not have lights or gates. They will only be marked with a crossbuck and a stop or yield sign. At this type of crossing, slow down and look for an oncoming train. Do not rely on any lights or gates, and always expect a train.



**Passive Crossing Markings**

## REQUIRED TO STOP

All school buses, charter buses, drivers carrying passengers for hire (such as Uber or Lyft), and all vehicles required to be placarded for hazardous materials, must stop within 15 to 50 feet of railroad tracks before crossing. If a police officer or highway traffic signal directs highway traffic to proceed, you do not have to stop. You also do not have to stop if the crossing is marked with an "EXEMPT" sign.

## IF YOUR VEHICLE STALLS

If your car stalls on the tracks as a train approaches:

- Keep trying to restart your car until you see the train
- Stand next to your car and wave at the locomotive engineer
- Get everyone out of the car IMMEDIATELY, move away from the tracks at a 45-degree angle, in the direction of the approaching train

**Can You Make the Grade?**
Scan here to test your rail safety knowledge

Operation LifeSaver
Rail Safety Education

## MAKE SAFE CHOICES

*Source: Operation Lifesaver*

### Cross Legally & Safely

- The only safe and legal place for anyone to cross railroad tracks is at designated crossings.
- Obey warning signs and signals.
- Not all train tracks have gates. Watch for advance warning signs and pavement markings indicating railroad tracks cross the road ahead.
- Rail cars have reflective stripes to enhance their visibility at night and in other low visibility environments, such as rain, snow, or fog. Be on the lookout for these when conditions might make it difficult to spot a train.
- Look for a train before proceeding.

### Wait, Look Both Ways

- Always expect a train.
- Trains may be closer and traveling faster than they appear and can run on any track at any time.
- Multiple tracks may mean multiple trains. Ensure you can clearly see down the tracks in both directions before proceeding.
- Avoid crossing while lights are flashing or gates are down. Never try to beat a train

### Avoid Getting Stuck

- Before crossing, be sure you can completely clear the tracks. Keep in mind that trains are wider than the tracks.
- When stopped, leave at least 15 feet between the front and rear of your vehicle and the nearest rail.
- Avoid shifting gears while crossing.

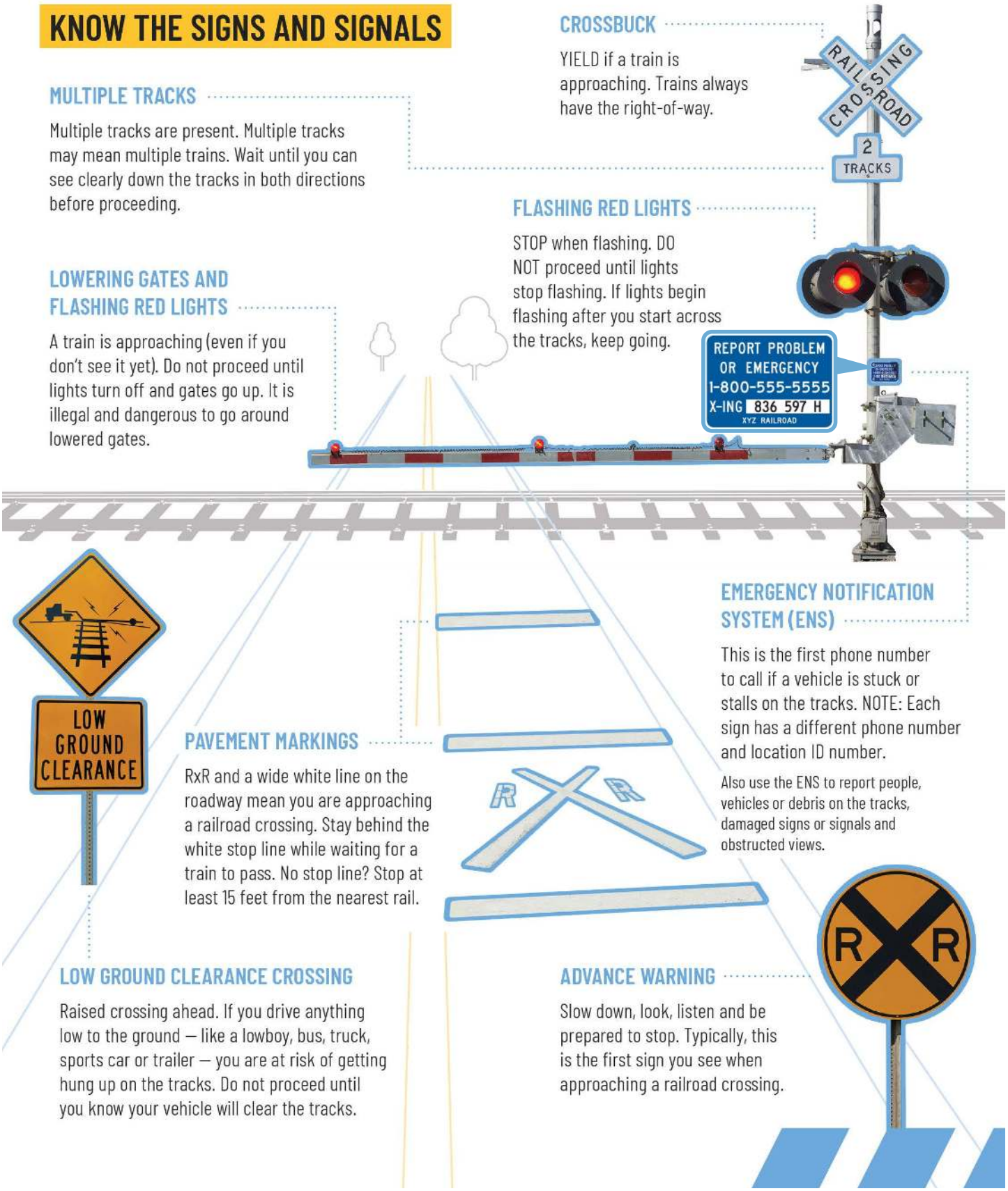
### Get Out, Get Away, Find the Blue & White Sign

- If your vehicle gets stuck or stalls at a crossing, get everyone out and far away immediately, even if you do not see a train.
- Call the number on the blue and white Emergency Notification System (ENS) sign. Share the crossing ID number with the dispatcher.
- If there is no sign, call 911.



**ENS sign**

**Figure 2.2: Operation Lifesaver - Know the Signs and Signals**




*Source: Operation Lifesaver:* **https://oli.org/sites/default/files/2021-01/OLI_Brochure_All_Drivers_WEB_version.pdf**

# 2.11 WORK ZONES




Traffic control devices such as arrow boards, temporary traffic signals, flaggers, and channelizing devices are added in work zones to make drivers aware of different conditions. Most signs in work areas are diamond-shaped, although a few signs are rectangular. Orange is the basic color of these signs and warning devices.

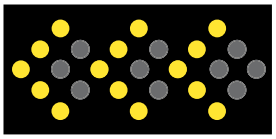
Traffic control devices and signs are used to mark construction, maintenance, survey, and utility work zones. These help direct drivers and pedestrians safely through the work area while keeping it safe for workers on the roadway. **Stay alert and drive cautiously as fines may double in work area zones.**

Work zones can be dangerous, and road workers are relying on you to keep them safe:

- ADJUST YOUR SPEED TO THE TRAFFIC CONDITIONS.
- OBEY ALL INSTRUCTIONS PROVIDED BY SIGNS, TRAFFIC SIGNALS, AND FLAGGERS.
- INCREASE FOLLOWING DISTANCE.
- GIVE YOUR FULL ATTENTION TO DRIVING.

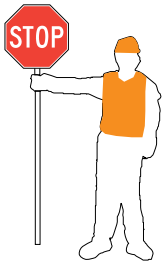
## ARROW BOARDS

Large flashing arrow panels are typically used when a lane or shoulder is closed.



## FLAGGERS

People with stop/slow paddles help control traffic in work zones. Follow their instructions. They should be wearing fluorescent yellow green or orange vests, shirts or jackets. They will normally use stop/slow signs. Red flags may be used occasionally.




## CHANNELIZING DEVICES

Barricades, vertical panels, drums, cones, and tubular markers are the most common devices used to alert drivers of unusual and potentially dangerous conditions, and to guide drivers safely through the work zone.

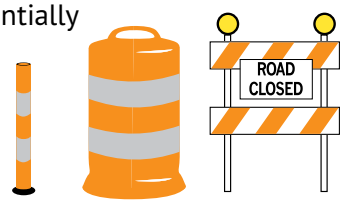
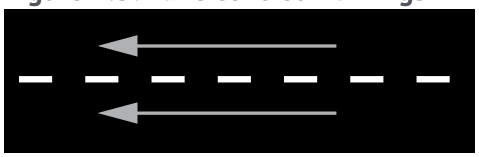





Figure 2.3: Lane control markings



One-direction roadway



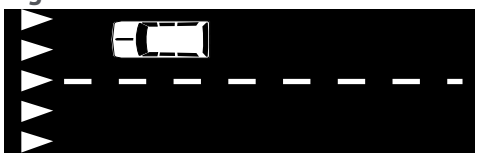
Two-direction roadway

## 2.12 PAVEMENT MARKINGS AND OTHER LANE CONTROLS

Pavement markings help direct and regulate traffic, just like highway signs. You will find them alone or used with signs and traffic signals. White lines separate traffic moving in the same direction. Yellow lines separate traffic moving in opposite directions.

On two-way roads you will see a solid yellow line with a dashed line beside it in some places. Passing is not allowed on the side with the solid yellow line. Vehicles on the side with the dashed line may pass when safe to do so.

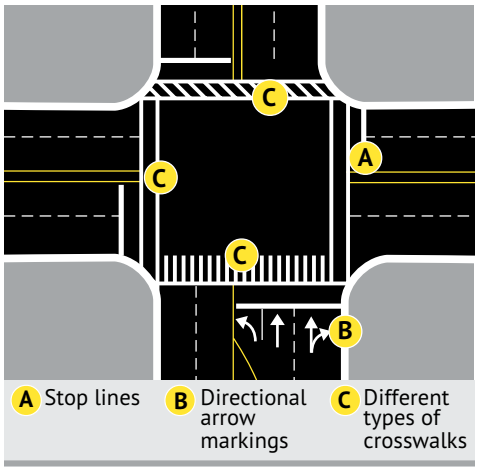
Figure 2.4: Yield lines



## 2.13 YIELD LINES

Yield lines consist of a row of solid white triangles pointing toward approaching vehicles. These lines extend across a travel lane to indicate the point where vehicles should yield in compliance with "Yield," "Yield Here To Pedestrians,"or "Yield Here to Pedestrians and Bicycles" signs.

Figure 2.5: Crosswalk, stop lines, and directional arrow markings

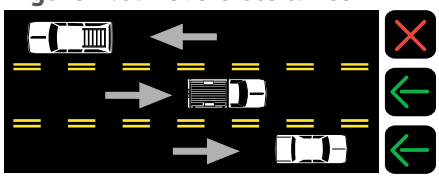



## 2.14 CROSSWALKS, STOP LINES, AND DIRECTIONAL ARROW MARKINGS

When required to stop because of a sign or signal, you must stop before your vehicle reaches the stop line, or a crosswalk if there is one. Crosswalks define the area where pedestrians are to cross the roadway. You must yield to anyone in or about to enter a crosswalk. Not all crosswalks are marked. Be alert for pedestrians when crossing intersections that do not have defined crosswalks.

Special arrow markings may be present and when used show the movements that are allowed or required when driving in that lane.

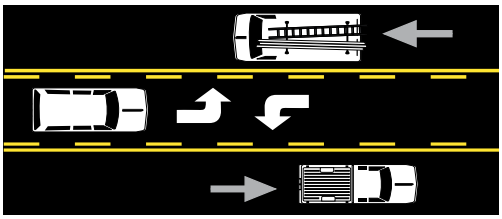
Figure 2.6: Reversible lanes



## 2.15 REVERSIBLE LANES

Some travel lanes are designed to carry traffic in one direction at certain times and in the opposite direction at other times. These lanes are usually marked by double-dashed yellow lines. Before you start driving in them, check to see which lanes you can use at that time. There may be signs posted by the side of the road or overhead. Sometimes special lights are used. A green arrow means you can use the lane beneath it; a red "X" means you may not. A flashing yellow "X" means the lane is only for turning. A steady yellow "X" means that the use of the lane is changing and you should move out of it as soon as it is safe to do so.

**Figure 2.7: Shared left-turn lane**



## 2.16 SHARED LEFT-TURN LANE

Shared left-turn lanes are reserved for vehicles making left turns from either direction. On the pavement, left-turn arrows for traffic in one direction alternate with left-hand arrows for traffic coming from the other direction. These lanes are marked on each side by a solid yellow and dashed yellow line. Vehicles may enter and stop in the lane before making a left turn, but the lane cannot be used for passing.




**Figure 2.8: Reserved lane sign**
In this example, the lane is reserved for high-occupancy vehicles (HOV) carrying two or more people.

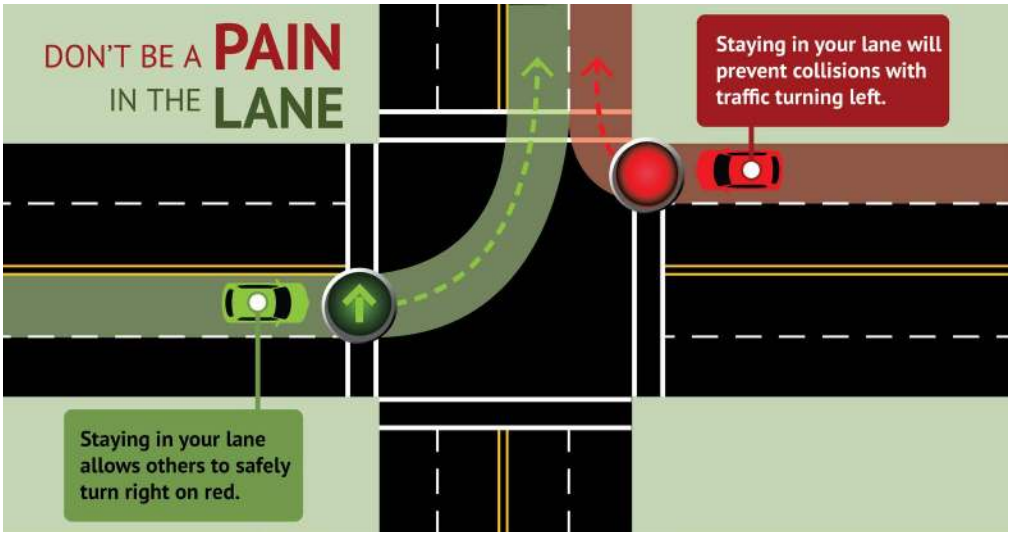
## 2.17 RESERVED LANES

On various roadways one or more lanes may be reserved for special vehicles. Reserved lanes are marked by signs stating that the lane is reserved for special use, and often have a white diamond posted at the side of the road and/or painted on the road surface. Do not travel in one of these lanes unless operating that type of vehicle.

## 2.18 GENERAL LANE USE

- On a road with two or more lanes traveling in the same direction, the left lane is generally used for passing. On a road with three or more lanes stay in the right or center lane except to pass. If there is a lot of entering traffic, it's best to use the center lane.
- Unless instructed to do so by a traffic control device or an official, never drive on the shoulder of the road.
- Never pass on the shoulder, whether it is paved or not. Other drivers will not expect you to be there and may pull off the road without looking.
- Where there are no signs or lane markings to control turning, you should turn from the lane that is closest to the direction you want to go, and turn into the lane closest to the one you came from. *(See figure 2.9)*
- When making turns, go from one lane to the other as directly as possible without crossing lane lines or interfering with traffic. Once you have completed your turn, you can change to another lane if you need to.

**Figure 2.9: When making turns, stay in your lane and turn into the lane closest to the one you came from.**



# 2.19 BICYCLE LANES AND PAVEMENT MARKINGS

## BICYCLE LANES

Bicycle lanes are portions of the roadway that are intended for use by bicyclists and are marked by solid white lines, along with bicycle pavement markings and signs.

- Some bike lanes may be further separated from traffic through the use of double white lines, curbs, posts, or planters.
- Bicycle lanes may be filled with green paint and motorists should pay close attention and look for bicyclists before crossing green pavement. Motorists should not stop on green pavement. *(See figure 2.10)*
- Motorists may only drive in bicycle lanes when making turning movements and must look carefully beside and behind their vehicle for bicyclists and cross with care.

## SHARED LANE MARKINGS

Shared lane pavement markings, also called "sharrows" alert motorists of the presence of bicyclists, encourage safe passing of bicyclists by motorists, and reduce incidences of wrong-way bicycling and the potential for door crashes. Unlike bike lanes, sharrows do not designate a particular portion of the roadway for the exclusive use of bicycles. *(See figure 2.11)*

## BICYCLE BOXES

Bicycle boxes are pavement markings that are installed to allow bicyclists a safe way to turn at a signalized intersection. Bicycle boxes are solid green and have an image of a bicyclist. They are located adjacent to the crosswalk and they cover the entire width of the travel lane. *(See figure 2.12)*

## BICYCLE DETECTOR SYMBOL

A symbol may be placed on the pavement indicating the optimum position for a bicyclist to activate/ trigger the traffic signal.



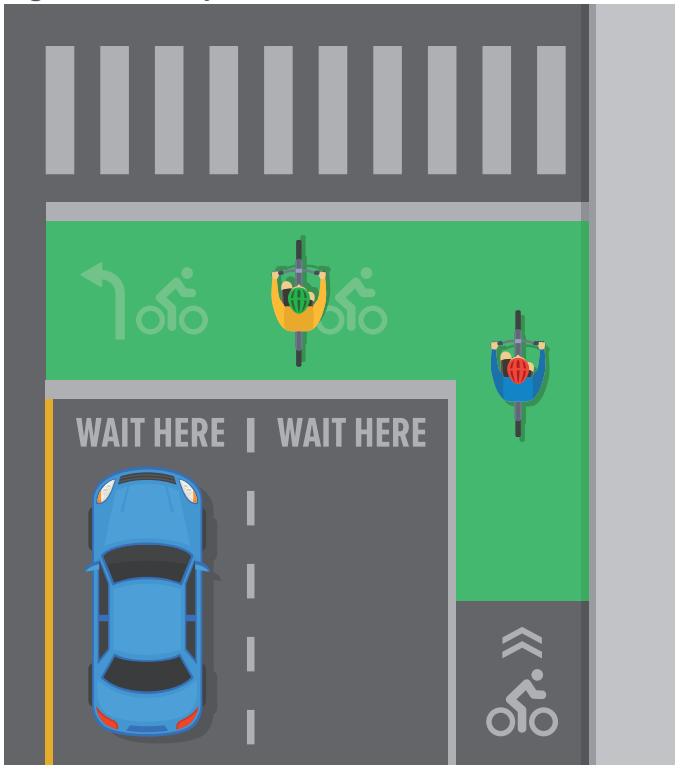

**Figure 2.10: Green bicycle lane**



**Figure 2.11: Shared lane markings**



**Figure 2.12: Bicycle boxes**



# 2.20 BICYCLE AND PEDESTRIAN SIGNALS

## RECTANGULAR RAPID FLASHING BEACONS

Rectangular Rapid Flashing Beacons are manually activated by a push button and are often located at intersections without traffic signals or at mid-block crosswalks. When activated, amber lights flash in a rapid pattern. Motorists must stop for anyone within the crosswalk and be alert for anyone about to enter the crosswalk when the beacon is flashing.

## PEDESTRIAN HYBRID BEACONS

Pedestrian Hybrid Beacons allow pedestrians to safely cross a roadway. These beacons operate only when activated by a pedestrian. When all lights are dark, motorists can proceed with caution. Once activated, the bottom yellow light flashes, and motorists must slow down. Then the bottom yellow light becomes solid, and motorists must prepare to stop. Then the top two red lights become solid, and motorists must stop for pedestrians. After a short time, the top two red lights will begin flashing. Motorists must stop if they haven't already done so, and may then proceed with caution if the crosswalk is clear.




**LEARN MORE ON OUR YOUTUBE CHANNEL**

◀ Scan the QR code to watch a video about rectangular rapid flashing beacons.




◀ Scan the QR code to watch a video about pedestrian hybrid beacons.

# 2.21 SIGHT-IMPAIRED PEDESTRIANS

If your vehicle is approaching a person being led by a harnessed service animal, walking with a cane that is white or white with a red tip, the person is likely visually impaired. Use extra caution to prevent injury to that person.

# 2.22 INTERSECTIONS

## WHEN TO YIELD THE RIGHT-OF-WAY

Where vehicles or pedestrians are likely to meet one another and there are no signs or signals to regulate traffic, there are rules that say who must yield the right-of-way. These rules tell drivers who goes first and who must wait in different traffic situations. The law says who must **yield** the right-of-way; it does not **give** anyone the right-of-way. Regardless of who has the right-of-way, you should do everything you can to prevent striking a pedestrian or another vehicle.

Be especially alert for bicyclists. While bicyclists and motorists must share the rights and responsibilities of using the road, motorists should realize bicycle riders are very vulnerable in crashes. Therefore, motor vehicle drivers should use good defensive driving skills to avoid collisions with bicyclists. Be ready to yield the right-of-way, even at times the bicyclists should yield to you. They have no defense against a vehicle, so it is your responsibility as a driver to watch out for them.

FAILURE TO YIELD THE RIGHT-OF-WAY IS THE **#1 CAUSE OF TRAFFIC-RELATED FATALITIES IN IOWA.**

## CONTROLLED (MARKED WITH SIGNS) INTERSECTIONS

The following right-of-way rules apply at intersections:

- You must yield when you want to make a right turn after stopping at a red light. Right turns on red are permitted unless there is a sign prohibiting them.
- Drivers crossing a sidewalk, entering or exiting a driveway, alley, or parking lot must yield to pedestrians. It is illegal to drive on a sidewalk except to cross it.
- Drivers turning left must yield to oncoming cars that are going straight ahead. (See figure 2.13a)
- At an all-way stop, the driver reaching the intersection first gets to go first (after coming to a complete stop). For vehicles arriving at the same time, the vehicle to the right gets to go first. (See figure 2.13b)
- Drivers entering a road from a driveway, alley, or roadside must yield to vehicles already on the main road.
- You must yield or stop for pedestrians in marked or unmarked crosswalks.

## UNCONTROLLED (UNMARKED) INTERSECTIONS

At an intersection where there is no stop sign or traffic signal, it's the responsibility of all drivers to slow down and approach carefully. All of the rules listed above that apply at a controlled intersection also apply at an uncontrolled intersection. Extra caution should be used at uncontrolled intersections.

**The red car must yield to approaching vehicles in these examples.**

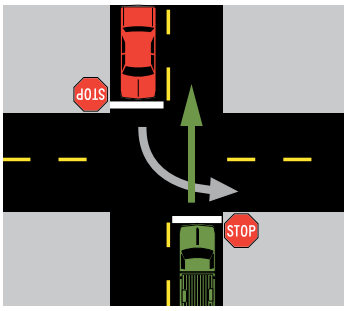



**Figure 2.13a: Two-way stop (cross traffic does not stop)** - Because the red car is turning left into traffic, the red car must yield to the green car going straight.

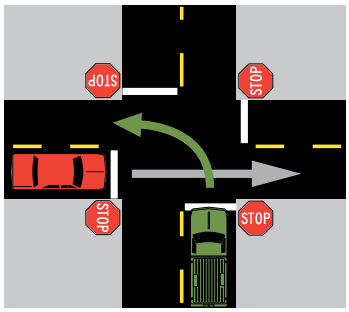



**Figure 2.13b: All-way stop -** Two vehicles arrive at the intersection at the same time. The driver on the left (red car) must yield to the driver on the right (green car).

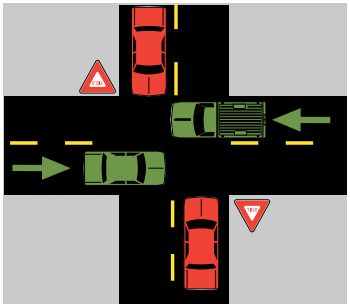


**Figure 2.13c: Yielding to cross-traffic -** The red cars must yield to the green cars.

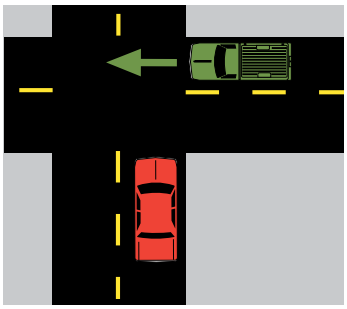


**Figure 2.13d: Uncontrolled intersection** - Two vehicles arrive at the intersection at roughly the same time. The driver on the left (red car) must yield to the driver on the right (green car).

# 2.23 EMERGENCY VEHICLES

- Yield the right-of-way to a police vehicle, fire engine, ambulance, or other emergency vehicle using a siren or air horn, and/or red or blue flashing lights by taking the following actions:
- Pull over to the right edge of the road, or as near to the right as possible, when you see or hear an emergency vehicle approaching from any direction.
- If you are in an intersection (including roundabouts), drive through the intersection before you pull over. However, if you are on a street or highway separated by a median, and the emergency vehicle is on the other side, you do not have to stop.
- Stay at least 500 feet behind any emergency vehicle using lights and sirens.

SCAN ME

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Scan the QR code to watch a video about Iowa's Move Over or Slow Down Law.

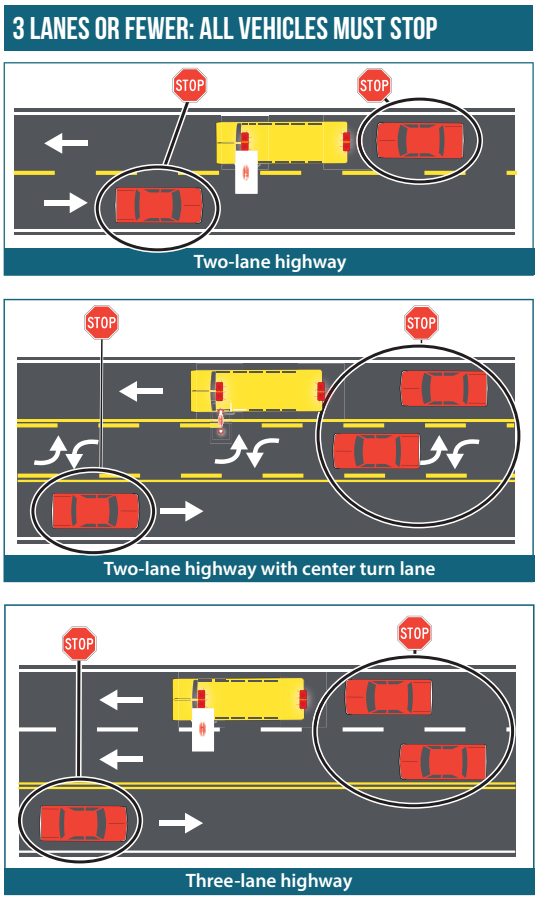



Figure 2.14: Stopped school bus scenarios

# 2.24 SCHOOL BUSES

## SCHOOL BUS SCENARIO 1

**You are driving on a two- or three-lane road**

### Approaching the Bus From the Rear:

When you see flashing red or amber warning lights, you are not permitted to pass the school bus and should be prepared to stop. Stop behind the school bus when the school bus stops and the stop arm is extended. Stop no closer than 15 feet from the rear of the bus, and remain stopped until the stop arm is retracted and the school bus starts moving again. Proceed with caution.

### Meeting the Bus From the Front:

When you see amber warning lights flashing, you must slow your vehicle to no more than 20 mph and be prepared to stop. Stop in front of the school bus when the school bus stops and its stop arm is extended. Remain stopped until the stop arm is retracted. Proceed with caution.

**Violating this law may result in your license being suspended for up to 180 days.**

## SCHOOL BUS SCENARIO 2

**You are driving on a road with four or more lanes**

### Approaching the Bus From the Rear:

When approaching from the rear, the rules are the same as for a two- or three- lane road. When you see flashing red or amber warning lights, you are not permitted to pass the school bus and should be prepared to stop. Stop behind the school bus when the school bus stops and its stop arm is extended. Stop no closer than 15 feet from the rear of the bus, and remain stopped until the stop arm is retracted and the school bus starts moving again. Proceed with caution.

### Meeting the Bus From the Front:

When meeting the bus in one of the opposite two lanes (or more), you do not need to stop, even if the bus has stopped with lights flashing and stop arm out. This is the only time you may pass a school bus that is stopped and has its stop arm extended.

**Violating this law may result in your license being suspended for up to 180 days.**



## 2.25 PARKING

Drivers are responsible for making sure their vehicles do not become a hazard after they have been parked. When parking, follow these guidelines.

- Park in a designated area, if possible.
- If you must park on a roadway, park your vehicle as far away from traffic as possible. If there is a curb, park within 18 inches of the curb or closer.
- Park far enough from any travel lane to avoid interfering with traffic.
- Check traffic before you open the door. Get out of the vehicle on the curb side if necessary.

## 2.26 PARKING NOT ALLOWED

There are many areas where you can't park. Check for signs that prohibit or limit parking. Some parking restrictions are indicated by colored curb markings. **Do not park:**

- On a crosswalk.
- In front of a public or private driveway.
- On any bridge outside city limits or in highway tunnels.
- Alongside another stopped or parked car (double parking).
- Closer than five feet from a fire hydrant; or in a designated hydrant red zone.
- Closer than 10 feet from a stop sign.
- Closer than 20 feet from a fire station entrance.
- Closer than 50 feet from a railroad crossing.
- In "NO PARKING ZONES" which are usually marked with signs, yellow painted curbs, or pavement markings/lines.
- In an intersection.
- On a sidewalk.
- On interstates and highways




### PARKING FOR PERSONS WITH DISABILITIES

Only park in a space reserved for persons with disabilities if you have a Persons with Disabilities Parking Permit. For information on eligibility, visit **iowadot.gov/mvd/vehicleregistration/Persons-with-disabilities**.

## 2.27 APPROACHING STOPPED VEHICLES IOWA'S MOVE OVER OR SLOW DOWN LAW

Iowa's Move Over or Slow Down Law requires motorists to change lanes when approaching any of the following stopped vehicles displaying flashing lights:

- Any stopped emergency, tow, recovery, maintenance, construction, solid waste, or recycling collection vehicle that has its flashing lights activated.
- Any stopped motor vehicle, including a passenger vehicle, that is continually displaying hazard lights.

If a lane change is not possible, prohibited by law, or unsafe, you must slow down and be prepared to stop. While no speed is specified, it must be reasonable and proper for the existing conditions.

**Violating this law may result in your license being suspended for up to one year.**

SCAN ME

**LEARN MORE ON OUR YOUTUBE CHANNEL**

Scan the QR code to watch a video about Iowa's Move Over or Slow Down Law.

## 2.28 STEER IT-CLEAR IT

If you are involved in a crash with no injuries, Iowa law requires that you move your vehicle out of the driving lanes of traffic if the vehicle is operable and can be safely moved. For every minute a lane of traffic on the interstate is blocked, the risk of a secondary crash increases by roughly 2.8 percent. *(See figure 2.15)*

**Figure 2.15: Steer It-Clear It law**





CHAPTER 3

# PREPARING TO DRIVE

Getting where you're going safely and hassle free depends greatly on decisions and actions taken by you before ever starting your engine. Be sure both you and your vehicle are ready for the road ahead.

## 3.1 MAINTAINING YOUR VEHICLE

Properly maintaining your vehicle not only saves money, but gives you an advantage in an emergency situation. Follow the recommended maintenance schedule listed in the vehicle owner's manual.

### BRAKING SYSTEM

Cars, trucks, and ATVs/UTVs need two separate braking systems, a foot brake and a parking brake. Motorcycles and mopeds need at least one. If your brakes do not seem to be working properly, are making a lot of noise, have an unusual odor, or the brake pedal goes to the floor, have a mechanic check them.

## LIGHTS

- Ensure signals, brake lights, taillights, and headlights are operating properly by checking them from outside the vehicle.
- All cars, trucks, and ATVs/UTVs need two headlights on the front of the vehicle: one on the right and one on the left. You also need at least one red light on the back of the vehicle, and it should be visible for at least 500 feet. A white light to illuminate the rear license plate is also required.
- If a vehicle is equipped with turn signals, they must work. Turn signals are required for all cars, trucks, and trailers wider than 40 inches.
- A misaligned headlight can shine where it does not help you and may blind other drivers. If you are having trouble seeing at night, or other drivers are flashing their headlights at you constantly, have a mechanic check the headlights.
- Keep the headlights, backup, brake, and taillights clean. Dirt on the lenses can cut the light's effectiveness by 50 percent.

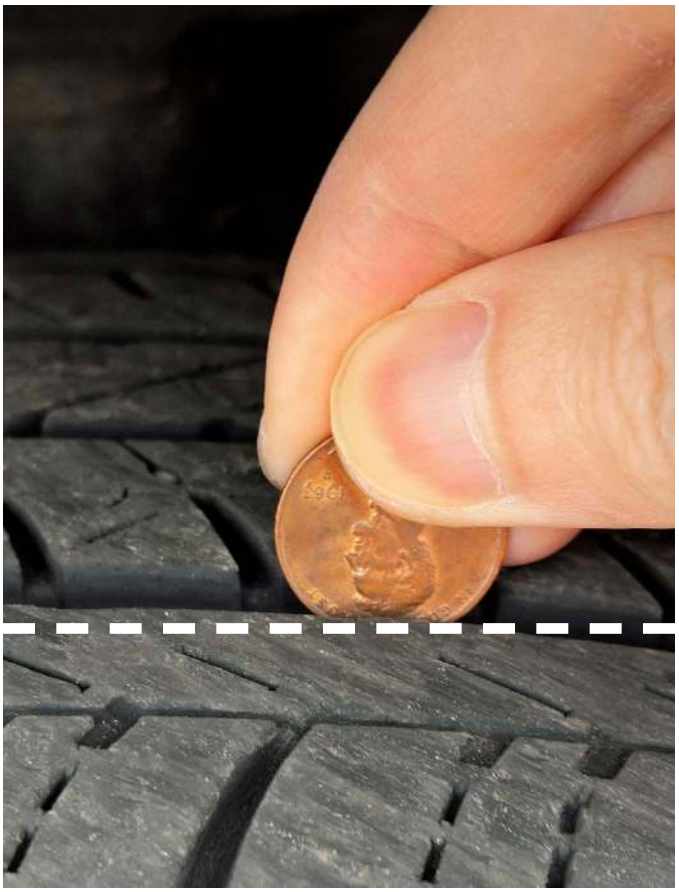


**Figure 3.1: Check your tire tread with a penny**

## WINDSHIELD, WINDSHIELD WIPERS, AND GLASS SURFACES

Take the following steps to ensure you are able to see clearly while driving.

- Replace any windows that have been damaged or broken. Damaged glass can break more easily in a minor collision or when something hits the windshield. It can also obscure vision.
- Keep the windshield clean. Bright sun or headlights on a dirty windshield make it hard to see.
- Keep your windshield washer fluid full and use antifreeze wash when the temperature could fall below freezing.
- Clear snow, ice, or frost from **all windows**. Clean the front, side, and back windows before you drive.
- Ensure windshield wipers, which are required, are in good working condition. If wiper blades aren't keeping the windshield clean, replace them.
- Avoid over tinted windows. Iowa law requires tinted windshields and windows to the immediate right or left of the driver to allow at least 70 percent of the light through. Iowa does not have a medical exemption for tinted windows. For window tinting standards go to **www.iowadot.gov/mvd/resources/windowtintingstandards.pdf**.
- Keep your view unobstructed. Do not hang things from your rearview mirrors or clutter up the windshield with decals.

## TIRES

Worn, bald, or unbalanced tires can increase your stopping distance, cause hydroplaning *(See page 60)*, cause faster tire wear, reduce fuel economy, and make the vehicle harder to steer and stop. If the vehicle bounces, the steering wheel shakes, or the vehicle pulls to one side, have a mechanic check it.

- Ensure your tires are properly inflated. Check tire air pressure with an air pressure gauge when the tires are cold. **The recommended tire pressure is commonly listed on a sticker inside the driver's door or in the vehicle owner's manual.**
- Check tire tread with a penny. Stick the penny into the tread "head" first. If the tread does not come at least to the top of Lincoln's head, the tire is unsafe and should be replaced. *(See figure 3.1)*

### STEERING SYSTEM

If the vehicle is hard to turn or does not turn when the steering wheel is first turned, have the steering checked by a mechanic.

### SUSPENSION SYSTEM

Your suspension helps you control your vehicle and provides a comfortable ride over varying road surfaces. If the vehicle bounces a lot, or keeps bouncing after a bump or after you stop, you may need new shocks or other suspension parts.

### EXHAUST SYSTEM

The exhaust system helps remove toxic gases from the engine, helps reduce noise from the engine, and helps cool the hot gases coming from the engine. Fumes from a leaky exhaust can cause death in a very short time.

**NEVER LEAVE YOUR ENGINE RUNNING IN THE GARAGE, OR SIT IN A RUNNING VEHICLE WITHOUT OPENING A WINDOW.**

### ENGINE

A poorly tuned engine may lose power that is needed for normal driving and emergencies, may not start, gets poor fuel economy, pollutes the air, and could stall on you when you are on the road causing a traffic problem. Follow the procedures recommended in the vehicle owner's manual for maintenance.

### HORN

A horn may not seem like an important safety device, but as a warning, it could save your life. It should only be used as a warning to others.

### MIRRORS

You must be able to see at least 200 feet behind you in your rearview mirror. If your view is blocked by a load, you must have an outside mirror. Vans or van-type vehicles must have both left and right outside mirrors.

## 3.2 ADJUSTING SEATS AND MIRRORS

The proper seat and mirror position are important to safely control the vehicle. Adjust the driver's seat and mirrors before driving to ensure they're set correctly for you.

### SEAT POSITION

Sit with your back firmly against the seat. There should be at least 10 inches between the steering wheel and your chest, with the air bag pointing at your chest.

The top of the steering wheel should be no higher than your shoulders. Move the seat forward or backward so that your heel touches the floor and you can pivot quickly between the brake and accelerator. Shorter drivers may need a seat cushion or pedal extenders to sit safely 10 inches from the air bag. The head restraint should be at the center of the driver's head.

### MIRRORS

The method below provides the best view of adjacent lanes, for maximum safety.

**Inside mirror:** Sit up straight in the driver's seat and adjust the inside mirror so that it frames the entire rear window. This is the main mirror for viewing what is behind the vehicle.

**Left-side mirror:** Lean your head toward the left-side window, and set the left mirror so you can barely see the side of the car. When sitting up straight, the car should no longer be visible in the mirror.

**Right-side mirror:** Lean to the right over the car's center console and set the right mirror so you can barely see the right side of the car.

## 3.3 ADVANCED DRIVER-ASSISTANCE SYSTEMS

Advanced driver-assistance systems (ADAS) are technological features that are designed to increase the safety of driving a vehicle. Features like automatic emergency braking, blind spot monitoring, and forward collision warning keep us all safer, but only if they're used correctly. It's important to understand how ADAS features work and their limitations.

During a driving test, you may be assisted by vehicle safety technologies such as back-up cameras but should not be assisted by vehicle convenience technologies like adaptive cruise control.

**Figure 3.2: Vehicle technologies permitted and not permitted for testing**

| WARNING SYSTEMS | PERMITTED FOR TESTING |
|---|---|
| Back-up warning | **Yes** |
| Blind spot monitor and warning | **Yes** |
| Camera technologies (rear, sideview, surround view) | **Yes** |
| Curve speed warning | **Yes** |
| Detection technologies (bicycle, pedestrian, and obstacle detection) | **Yes** |
| Forward collision warning systems | **Yes** |
| High speed alert | **Yes** |
| Lane departure warning device | **Yes** |
| Parking sensors | **Yes** |
| Rear cross-traffic alert | **Yes** |

| ASSIST SYSTEMS | PERMITTED FOR TESTING |
|---|---|
| Automatic emergency braking systems or brake assist | **Yes** |
| Automatic reverse braking | **Yes** |
| Lane keeping assist | **Yes** |
| Left turn crash avoidance | **Yes** |
| Adaptive cruise control | No |
| Automatic parallel parking | No |

Even though a vehicle has technological features, you must demonstrate the ability to operate the vehicle in case the technologies require the driver to disengage them manually, they become inoperable, or the driver operates another vehicle without the technology.

# VEHICLE WARNING SYSTEMS TECHNOLOGIES

The primary purpose of these technologies is to provide warnings to the driver in specific circumstances. Vehicle warning systems technologies notify the driver with a warning, by sound, light, or vibration, that a crash is about to occur, or it provides an alert that there is a problem or malfunction. Most of these technologies are passive, meaning they warn the driver of a potential issue but do not automatically prevent a problem or crash. The driver may need to make changes to the operation of the vehicle to prevent a problem or crash.

## Back-up Warning



**Description:** Uses rear sensors to scan for objects behind the vehicle and alerts you if an object is detected.

**How it works:** The back-up warning feature scans behind the vehicle when the driver shifts into reverse. It will let you know – through a sound, vibration, or a mix – if there is an object or car directly behind the driver.

You should demonstrate all necessary behaviors for safely monitoring and maneuvering your vehicle while backing. These include checking all the following:

- side mirrors
- rear-view mirror
- over the shoulders (head checks)
- other camera(s), if equipped

## Blind Spot Monitor and Warning



**Description:** Warns you of other vehicles driving in your blind spots through display of a symbol, sound, or vibration. An additional warning may occur if a driver uses their turn signal when there are other vehicles in the lane.

**How It Works:** The blind spot monitor helps you be more aware of other traffic. The warnings provided by the blind spot monitor can be helpful when making a lane change, but the driver should not become complacent and dependent on blind spot monitors alone for changing lanes. These include frequently scanning:

- side mirrors
- rear-view mirror
- over the shoulders (head checks)
- blind spot monitor, if equipped

# CAMERA TECHNOLOGIES

## Rear Camera



**Description:** Helps see objects directly behind the vehicle by showing a wide view behind the vehicle while backing. Some cameras show a wider view than others.

**How it works:** When the driver shifts into reverse, the rear camera activates to show the area behind the vehicle. Depending on the vehicle, the display screen may be found on the center console, in the rearview mirror, in the sun visor, or in other locations.

Do not become dependent on rear cameras, and continue to check:

- side mirrors
- rear-view mirror
- over the shoulders (head checks)
- other camera(s), if equipped

## Sideview Camera



**Description:** Shows an expanded view of a lane beside the vehicle when you use your turn signal or activate the feature manually. This feature shares similar uses to blind spot monitors.

**How it works:** This feature shows you a video view of what is next to or coming up alongside your vehicle. It may be used in conjunction with, or in place of, traditional mirrors. You can use the turn signal or activate the feature through a button usually located on the turn signal lever. This feature may not be available while backing up or may only turn on at low speeds.

Sideview cameras should be used in conjunction with traditional mirrors and head checks (checking over the shoulders). Some newer vehicles may be equipped with sideview cameras in place of traditional mirrors.

## Surround-View Monitor or Around-View Monitor System



**Description:** Assists drivers to park more easily by better understanding the vehicle's surroundings through a virtual bird's-eye view from above the vehicle. The around-view monitor helps you visually confirm the vehicle's position relative to the lines around parking spaces and adjacent objects.

**How it works:** The around-view monitor processes video from four cameras, displaying the composite footage on the screen as if there is a single birds-eye view camera right above the vehicle. The four wide-angle cameras on the front, back, left, and right are the foundations of the around-view mirror.

Surround-view monitor or around-view monitor systems should be used in conjunction with traditional mirrors and checking over the shoulders (head checks). Some newer vehicles may be equipped with surround-view monitor or around-view monitor systems in place of traditional mirrors.

# DETECTION TECHNOLOGIES

## Bicycle, Pedestrian, and Obstacle Detection



BICYCLE DETECTION



PEDESTRIAN DETECTION

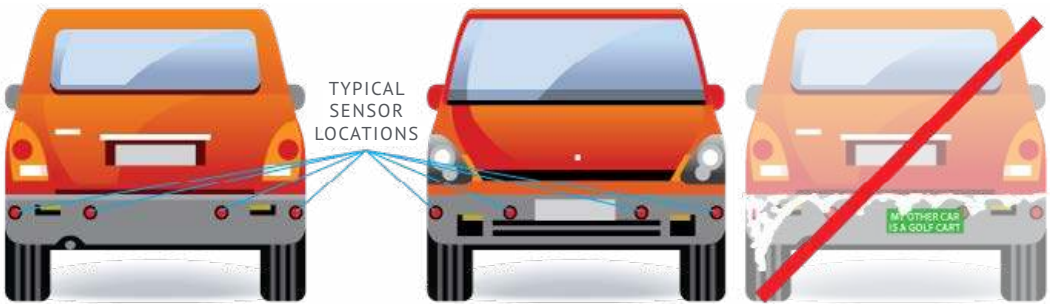


OBSTACLE DETECTION

**Description:** Alerts you when a bicycle, pedestrian, slow-moving or stationary obstacle has been detected when driving at low speeds, generally around 25 mph. Some systems can only detect bicyclists, pedestrians, or obstacles when traveling directly in front of the vehicle and when moving in the same direction. Some versions of obstacle detection will apply the brakes automatically.

**How it works:** Sensors located in the front or rear (or both the front and rear) of the vehicle can detect how close the vehicle is to a bicycle, pedestrian, or obstacle in front or in rear. These typically are radar-based. Warnings can come in the form of sounds, visuals, vibrations, a quick brake pulse, or a mix of warnings. The beeps become faster as the vehicle moves closer to the bicycle, pedestrian, or obstacle. A crash is imminent when the beeps become continuous.

You should not depend on bicycle, pedestrian, or obstacle detection. Always remain aware of your surroundings and check for bicyclists, pedestrians, or obstacles regularly, especially in urban areas.




**Sensors need to be kept clean in order for them to function properly.**

## Curve Speed Warning



**Description:** Warns you when approaching a curve or exit on the road too quickly.

**How it works:** Tracks the vehicle's speed and location via GPS and warns you to slow down when approaching curves and exits.

You should not become dependent on curve speed warnings and maintain a safe speed while driving and approaching curves or exits.

## Forward Collision Warning Systems



**Description:** Alerts you of an impending collision with a slower moving or stationary vehicle or object in front of you so you can brake or swerve in time. The warning alone will not automatically brake for the driver. Forward collision warning scans the road ahead while driving.

**How it works:** Sensors located in the front of the vehicle can detect how close the vehicle is to other vehicles in front of you. These typically are camera or radar based. It is intended to warn you when you are getting dangerously close to the vehicle or object in front. Warnings can come in the form of sounds, visuals, vibrations, a quick brake pulse, or a mix of warnings. The forward collision warning system scans the traffic ahead 20 times per second up to 500 feet in front of your vehicle and then warns you to brake or steer if a hazard is in your path. As an example, here are three levels of alerts*:

| SPEED | WARNING TIME BEFORE A COLLISION |
|---|---|
| 15–18 mph | 3 seconds |
| 18–50 mph | 4 seconds |
| 50+ mph | 5 seconds |

You should always be cautious, check traffic regularly, and keep a safe following distance. If you do unintentionally get too close to another vehicle, the forward collision warning system will notify you so you may brake or steer quickly.

## High Speed Alert



**Description:** Helps maintain a safe speed by sounding an alert if you are speeding.

**How It Works:** The GPS or car's infotainment center must be up to date to ensure the posted speed is known. If the posted speed is exceeded, the alert will activate as beeps or visual warnings such as color changes on the display or a flashing speed limit sign. If a warning sounds, you should carefully slow the car to the appropriate posted speed limit by releasing the accelerator or lightly braking. Don't slam the brakes to maintain a safe speed.

You should not rely on the high-speed alert and should always monitor your speed, maintain a safe speed, and obey the speed limit on the roadway.

## Lane Departure Warning Device



**Description:** Alerts you when you are drifting out of your lane using visual, vibration, or sound warnings. This feature can help alert you to steer back to the center of your lane if you mistakenly drift, helping to prevent a crash.

**How It Works:** This feature relies on roadway markings to operate. It's designed to alert you if the car begins to drift out of a lane with one or more types of warnings.

Do not rely on lane departure warning devices to maintain correct lane position.

## Parking Sensors







**Description:** Alert you to the position of objects around your vehicle as you park.

**How it works:** The vehicle may provide audible warnings that there are objects in front or behind it. The intervals between beeps may become shorter the closer the vehicle is to an object. A constant tone means the vehicle is close to an object.

Do not rely solely on parking sensors to detect all objects. They may not detect objects that are flat on the ground, below the bumper, too close to the vehicle, or too far from it. Remain aware of your surroundings through use of mirrors, head checks, and rear cameras while parking, including awareness of people or objects that may enter the parking path.

## Rear Cross-Traffic Alert



**Description:** Warns you if one or more vehicles are about to enter the backing path. Can detect vehicles that might be crossing during backing.

**How it works:** Sensors around the rear of the vehicle detect other vehicles approaching from the left and right. You may be alerted by a warning tone or flashing lights on the mirrors or dashboard alerting you to stop.

Do not depend on the rear cross-traffic alert and remain aware of your surroundings through use of mirrors, head checks, and rear cameras, including awareness of people or objects that may enter the path near the rear of the vehicle.

# DRIVER ASSISTANCE TECHNOLOGIES

The primary purpose of these technologies is to perform a component of the driving function in specific circumstances. Vehicle assistance systems technologies assist drivers in avoiding hazards and crashes. Some automatically make adjustments to the vehicle, and some assist the driver in making adjustments, such as braking or steering. The driver may still need to make changes to the operation of the vehicle to prevent a problem or crash, but the vehicle assists.

## Automatic emergency braking systems or brake assist



**Description:** Can sense slow or stopped traffic or an object ahead and urgently applies the brakes if you fail to respond.

**How it works:** If you fail  to brake or steer to avoid a hazard ahead, the vehicle will slow down rapidly or stop on its own to avoid a crash. You should continue to scan the road for hazards and maintain a safe following distance.



## Automatic Reverse Braking



**Description:** Can apply the brakes if an obstacle is detected while reversing the vehicle. Helps you avoid a possible crash when the vehicle is moving in reverse.

**How it works:** While backing up, if an object is detected, you may hear a series of beeps or see visual indicators to alert you an object is to the rear. If you do not react, the reverse automatic brake activates, and the brakes are immediately applied to help avoid a potential crash.

Do not depend on the automatic reverse braking technology. Continue to check mirrors, check over the shoulder (head checks), and use rear cameras if equipped.

## Lane Keeping Assist



**Description:** This feature can help return you to your lane if you drift out, potentially preventing a crash.

**How it works:** You may receive an alert via a sound, flashing light, or vibration if the vehicle drifts out of the lane. You should return to your lane; if you don't take action, this feature may gently steer the vehicle into its lane. It is easily cancelled by nudging the wheel. This feature will not work when lane lines are faint or covered with snow or dirt.

The driver should not depend on lane keeping assist and should always maintain control of the vehicle on the roadway and remain within the driving lane.




## Left Turn Crash Avoidance



**Description:** This feature monitors traffic when you turn left across traffic at low speeds (such as at a traffic light). It activates warning sounds and dash lights and automatically applies the brake if you are turning left into the path of another vehicle.

**How it works:** The left turn assist system monitors oncoming traffic when you initiate a turn maneuver across the opposite driving lane at low speeds. If the gap in traffic is too small to permit a turn, the system prevents the vehicle from moving forward.

If a crash with an oncoming vehicle is imminent, the system will stop the turn in time by initiating an automatic emergency braking maneuver.

Do not depend on left turn crash avoidance. You should safely scan and monitor the driving environment ahead for hazards and determine when it is safe to turn in front of other traffic.

# CONVENIENCE TECHNOLOGIES

The following technologies provide conveniences for the driver and do not require the applicant to demonstrate a required skill set. Convenience technologies are not permitted for use during the driving test process.

## Adaptive Cruise Control



**Description:** Can increase or decrease the vehicle's speed to maintain a following distance set by the driver. Advanced versions can even slow and stop the vehicle in traffic jams and then accelerate automatically.

How it works: You accelerate to your set speed, and then turn on the adaptive cruise control (ACC). You can then tell the ACC how close you want your following distance gap to be (generally short, medium, or long distances).

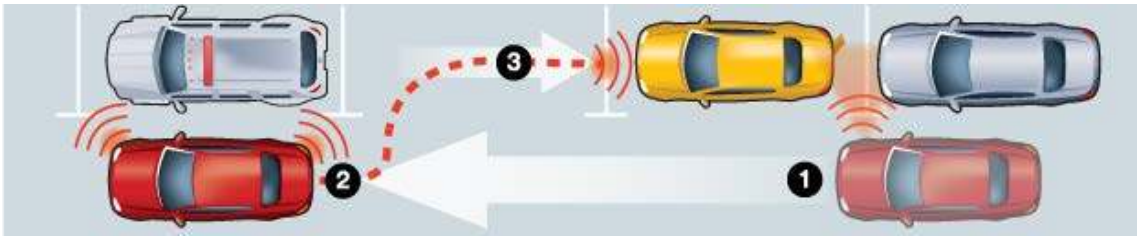
Sensors on the vehicle read the road ahead for traffic, maintaining distance between you and the vehicle ahead, slowing your speed if necessary to maintain distance. However, the driver is required to remain aware of their surroundings. In bad weather and other unsafe driving conditions, it is advised not to use any cruise control, including ACC.

## Automatic parallel parking




**Description:** Helps guide you into a parallel parking spot. You are still responsible for braking and monitoring the environment.

**How it works:** You can activate the vehicle's automatic parallel parking sensors when ready to park. The vehicle's automatic parallel parking system will inform you when it has found an appropriate spot to park. You should follow any prompts provided by the vehicle. These may include pulling in front of the space, shifting into reverse, and taking hands off the steering wheel. The driver is responsible for braking. After the vehicle is parked, you may need to do some slight adjustments to ensure the vehicle is in an optimal position.




***Carefully review your vehicle owner's manual to read about any features that are new to you and make sure you know how they work. If you still have questions, reach out to the dealership so they can explain.***

# 3.4 BEING AWARE OF BLIND SPOTS

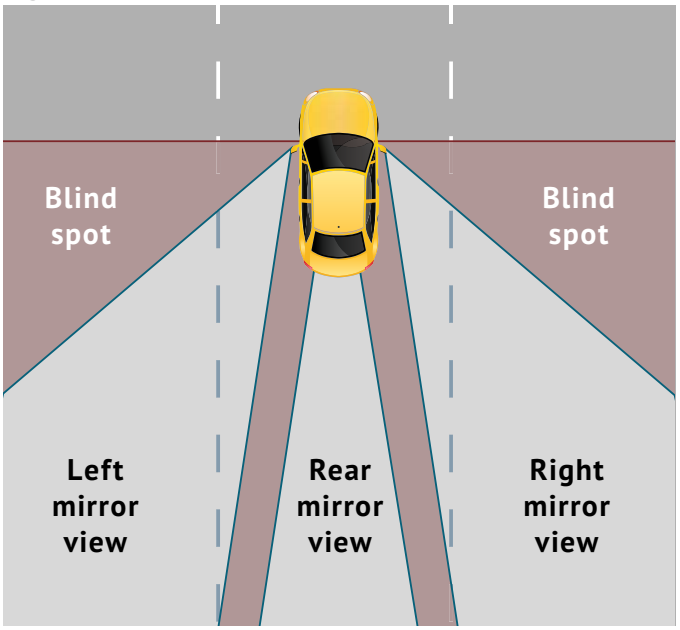
Blind spots are areas outside your vehicle that cannot be seen using mirrors. Blind spots can also be caused by obstructions in vision due to vehicle equipment (rearview mirrors, door posts, etc.) and your driving environment (trees, the sun, hedges, hills, and walls).

## OTHER DRIVERS' BLIND SPOTS

*(See figure 3.3)*

- Do not drive in another driver's blind spot. Either speed up or slow down so the other driver can see your vehicle.
- When passing another vehicle, get through the other driver's blind spot as quickly as you can.
- Never stay alongside a large vehicle such as a truck or bus. These vehicles have large blind spots and it is hard for them to see you.

**Figure 3.3: blind spots**




## YOUR BLIND SPOTS

- Be aware of the natural blind spots within your vehicle that impact your visibility outside your vehicle.
- Be cautious of blind spots when changing lanes and/or pulling into cross traffic *(see figure 3.3)*.
- Blind spots can be increased by weather conditions and daylight. The sun can create blind spots with reflections off any of your window surfaces. The front windshield is the most common place for glaring reflections and blind spots. Sunglasses or use of the visors in most cars help shield your eyes from those reflections that make it hard to see.

# 3.5 SEAT BELTS AND CHILD RESTRAINTS

## SEAT BELTS

Before the vehicle ever moves, everyone should be properly buckled. Car crashes are the number one killer of teenagers. The easiest thing you can do to avoid being a statistic is buckling up.

Wear your lap belt snugly across your hips. If you are pregnant, you can safely wear the belt across the pelvis, as low under your abdomen as possible.

Not wearing a seat belt is considered a primary offense, meaning that you can be stopped for the sole purpose of non-compliance with the seat belt law. The violation of this law is punishable with up to a $50 fine per passenger and $100 per passenger under 18.

SEAT BELTS ARE THE SINGLE MOST EFFECTIVE WAY TO PREVENT DEATH AND INJURY IN A CRASH. ON TOP OF THAT, YOU'RE BREAKING IOWA LAW BY NOT WEARING ONE.

IOWA REQUIRES ALL PASSENGERS IN THE FRONT SEATS OF A VEHICLE TO WEAR SEAT BELTS. THE LAW ALSO APPLIES TO PASSENGERS IN THE BACKSEATS WHO ARE UNDER AGE 18.



## SEAT BELTS AND IOWA LAW

- **A child under one year old and weighing less than 20 pounds** must be secured in a rear-facing child restraint system.
- **A child under six years old** must be secured in a child restraint system (a safety seat or booster seat, not a seat belt).
- **A child from the age of six up to the age of 18** must be secured in a child restraint system or by a seat belt, in all seating positions (front and back).
- **A child under the age of 18** cannot ride in the rear of a moving pickup truck.
- **Adults 18 and older** must wear a seat belt while riding in the front seats of a vehicle.

Exceptions for seat belt use can be found online at: **iowadot.gov/mvd/medical-exemptions-from-safety-belt-use**

## SEAT BELT MYTHS

### "Some people are thrown clear in a crash and walk away with hardly a scratch"

Your chances of not being killed in a crash are much better if you stay inside the car. Seat belts can keep you from being thrown out of your vehicle into the path of another one.

### "It's my choice to wear a seatbelt and I'm not affecting anyone but myself."

If you are improperly buckled during a crash, you risk becoming a projectile and injuring or killing others in the vehicle. Even when you're alone in the vehicle, if you aren't properly buckled, an unpredictable situation can cause you to swerve or brake suddenly, forcing you from the driver's seat which is likely to cause a crash.

### "Seat belts are good on long trips, but I do not need them if I am driving around town."

Over half of all traffic deaths happen within 25 miles of home. Many occur on roads with speed limits of less than 45 mph.

### "Seat belts can trap you inside a car."

It takes less than a second to undo a seat belt. This myth often references an incident where a car caught fire or sank in deep water. Crashes like this seldom happen. Even if they do, a seat belt may keep you from being knocked out. Your chance to escape will be better if you are conscious.

# 3.6 SECURING LOOSE OBJECTS

In addition to keeping yourself and your passengers secure, you should also make sure there are no loose objects in your vehicle that could injure someone in the event of a sudden stop or crash. At 60 miles per hour, a 20-pound object has the potential to exert well over 1,000 pounds of force in a sudden stop. Also, make sure there are no objects on the floor that could roll under the brake pedal making it difficult or impossible to apply the brakes.

# 3.7 ELIMINATING DISTRACTIONS

There are three kinds of distractions:

**Visual —** doing something that requires the driver to look away from the driving task. (E.g., looking at a GPS).

**Manual —** doing something that requires the driver to take one or both hands off the wheel. (E.g., eating or putting on makeup).

**Cognitive —** doing something that causes the driver's mind to wander or focus elsewhere. (E.g., listening to music or having a conversation).

All types of distractions can be dangerous while driving, and many tasks that people commonly do behind the wheel can fit into more than one category.

## MOBILE DEVICES AND TEXTING WHILE DRIVING

Iowa's distracted driving law prohibits the use of mobile phones and other hand-held electronic communication devices to write, send, or view an electronic message while driving. Before writing, sending, or reading a text message, email, or social media post, the vehicle must be brought to a complete stop off the traveled portion of the roadway.

Exceptions to this law include:

- Members of public safety agencies performing official duties.
- Healthcare professionals in the course of emergency situations.
- A person receiving safety-related information including emergency, traffic, and weather alerts.

## TALKING ON THE PHONE

Drivers under the age of 18 with an instruction permit, intermediate license, or special minor restricted license are prohibited from making and receiving calls and talking on the phone while driving unless their vehicle is at a complete stop off the traveled portion of the roadway.

## ENFORCEMENT AND PENALTIES

Distracted driving is considered a "primary" traffic offense—meaning an officer can pull you over for a violation. In addition to paying fines, a distracted driving conviction could also result in your license or permit being suspended or revoked.

If you drive distracted and cause the death of another person, you could face more than $1,000 in fines, have your license suspended, and depending on the circumstances, be charged with vehicular homicide.

## IOWA'S HANDS-FREE LAW

New legislation prohibits drivers from using electronic communication devices while driving—unless the device is used hands-free.

### Hands Free Means:

- You can't hold your phone in any way.
- You can't manually scroll, type, or interact with your phone in any way.
- You can't enter in an address to GPS while driving.
- You can't stream videos or make video calls, even with voice commands.
- You can't view texts, videos, or social media.
- You can't call, text, or dial unless using hands-free or voice activation.

### What Counts as an "Electronic Device"?



# 3.8 ALCOHOL AND DRUGS

One of the most enforced laws across the nation's roadways is driving under the influence. Iowa is no exception, with high penalties for drivers caught intoxicated from alcohol or under the influence of drugs.

## OPERATING WHILE INTOXICATED (OWI)

The official name for the offense of drunk driving is "Operating While Intoxicated" and is defined as having a blood alcohol concentration (BAC) of .08 or higher or operating with any amount of controlled substance in your system. BAC is normally tested through a breathalyzer, urine sample, or blood test. Even if you are not convicted of an OWI offense in criminal court, your driving privileges will still be revoked for a minimum of 180 days if you operate while intoxicated. Repeat offenses for operating while intoxicated are increasingly severe, resulting in longer driver's license revocations and harsher criminal penalties.

## IMPLIED CONSENT TO TESTING

As a holder of an Iowa driver's license, you are contractually agreeing to consent to a field sobriety test upon demand by law enforcement (Iowa Code §321J.6). This law also applies to any non-resident drivers traveling in the state.

## TEST REFUSAL

Refusing a breathalyzer test does not guarantee that you won't be convicted of an OWI, and test refusal will still result in the revocation of your license. The consequences for refusing a breathalyzer test are more severe than failing a test, with an automatic one year revocation of your license and a minimum $1,250 fine.

If you are found guilty of refusing a test, the court may also order a mandatory substance use disorder class and evaluation or an ignition interlock device to be installed in your vehicle at your expense.

## DRIVERS UNDER 21

The laws for driving under the influence are stricter if you're under the legal drinking age. An underage driver is considered to be operating while intoxicated with a BAC of .02 or more. An underage driver will have their driving privileges revoked for a minimum of 60 days and for a minimum of 180 days if the BAC is .08 or more. Offenders under age 18 are not eligible for a temporary restricted license while their license is revoked for OWI.

## OPEN CONTAINER LAW

It is illegal to transport any open, unsealed container of alcohol by any person or passenger in a motor vehicle. Open containers of alcoholic beverages may be transported in the trunk of a vehicle. The violation of this law is punishable as a simple misdemeanor with up to a $200 fine for each driver and passenger in the vehicle.

# 3.9 DROWSY DRIVING

Drowsy driving is just as dangerous as drunk driving. Drowsy drivers have slow reaction times, often swerve in and out of lanes, veer off the road, and are more likely to cause a crash. **You should take a break, pull over to a safe spot, or switch drivers** if you notice any of the following:

- Daydreaming or wandering thoughts.
- Trouble remembering the last few miles driven.
- Yawning repeatedly or rubbing your eyes.
- Trouble keeping your head up.
- Drifting from your lane, tailgating, or hitting a shoulder rumble strip.
- Feeling restless and irritable.




**Being awake for 18 hours straight is as impairing as a blood alcohol concentration (BAC) of 0.08 percent, which is legally drunk and leaves you at equal risk for a crash.**

# 3.10 PREPARING FOR THE ROAD AHEAD – IOWA 511

It's smart to plan ahead before you set out on any trip - whether it's a regular route or a longer drive. Stay informed of things that will impact your trip such as adverse weather, road construction, crashes, etc. Visit www.511ia.org or download the free mobile app to stay up to date on the latest travel conditions for Iowa highways and interstates.

**Figure 3.4: Iowa 511**





CHAPTER 4

# BASIC DRIVING SKILLS

No manual can completely teach you how to become a safe driver. Studies show that the risk of a crash diminishes with experience – experience that can only be gained through instruction and practice.

## 4.1 STARTING THE VEHICLE

Check the vehicle owner's manual for the best starting procedures for the vehicle. The procedures vary depending on whether the vehicle has fuel injection, and the type of transmission.

## 4.2 SHIFTING GEARS

### AUTOMATIC TRANSMISSION

When driving a vehicle equipped with an automatic transmission, there is no need to manually shift gears. Instead, the gear selector is only responsible for moving the car using the P-R-N-D-L column.

**P** – "Park" locks the vehicle for parking

**R** – "Reverse" for moving in reverse

**N** – "Neutral" to leave the engine idle

**D** – "Drive" to move the vehicle forward

**L** – "Low Gear*" to limit the engine's speed*

*Note: this may also be represented as "3, 2, 1" indicating the maximum gear the automatic transmission may shift to.

### MANUAL TRANSMISSION

For vehicles with a manual transmission, shifting gears regulates the range of speeds the vehicle may travel in. Depending on the number of gears available, the driver must be able to shift from "Neutral" or "1" to higher gears, "2, 3, 4…" in order to accelerate. To do this, a third pedal called the "clutch" is used to alternate between gears.

**Step 1:** Depress the clutch with your left foot

**Step 2:** Shift the gear stick with your right hand

**Step 3:** Slowly step on the gas pedal while simultaneously releasing the clutch

Repeat this process when "downshifting" or when you need to slow down to come to a stop. This process is also used to move the vehicle backward by shifting into "Reverse" from the "Neutral" or "1" gear.

## 4.3 ACCELERATING

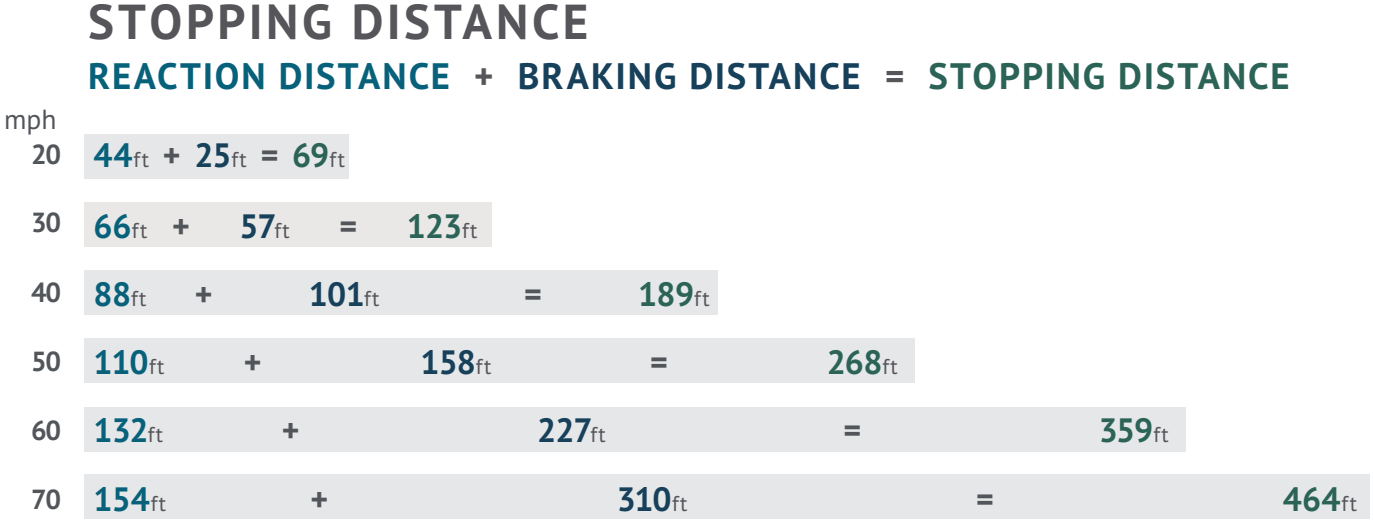
Accelerate gradually and smoothly. Trying to start too fast can cause the drive wheels to spin, particularly on slippery surfaces, causing the vehicle to slide. With a manual-shift vehicle, practice using the clutch and accelerator so the engine does not run too fast or stall when shifting between gears.

## 4.4 BRAKING AND STOPPING

Using your vehicle's brakes to come to a stop is one of the most important skills to learn. The time it takes your wheels to stop depends on the vehicle's weight, size, and load, as well as the condition of its tires. The reaction time in getting your foot on the brake pedal is also crucial. Learning how to smoothly and effectively come to a stop may take practice.

Even if your car and your reflexes are in top condition, different road surfaces still affect how fast you stop. Loose gravel roads, snow and ice, or even dry pavement may cause your vehicle to skid if the brakes are applied too hard. At higher speeds, it takes longer to stop. *(See figure 4.1)*

**Figure 4. 1: Stopping distance**

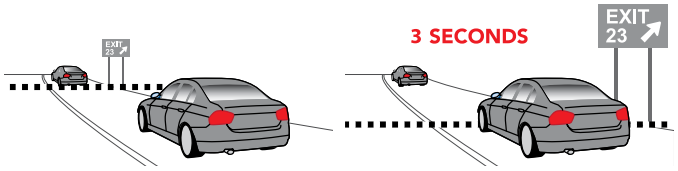


## SAFE FOLLOWING DISTANCE

Since the greatest chance of a collision is in front of you, using the 3- to 4-second rule will help you establish and maintain a safe following distance and provide adequate time for you to brake to a stop if necessary. This rule only works in normal traffic under good weather conditions. *(See figure 4.2)*

- An inexperienced or beginning driver should maintain at least a three-second following distance under normal driving conditions.
- A two-second following distance may be sufficient in normal conditions for an experienced driver.
- At speeds of 40 mph, a four- to five-second following distance is recommended. When road conditions are slippery or the vehicle in front of you blocks your view, a following distance of six or more seconds is recommended.

**Figure 4.2: 3- to 4- second rule**




Watch the vehicle ahead of you pass a landmark, such as a sign, and begin slowly counting. In order to achieve a safe following distance, your front bumper should not pass the landmark before you've counted to three.

## ABS (ANTILOCK BRAKING SYSTEM)

Most newer vehicles have ABS (antilock braking system). Be sure to read the vehicle owner's manual on how to use the ABS. The ABS will allow you to stop without skidding. If your vehicle has ABS and you need to stop quickly:

- Press on the brake pedal as hard as you can and keep pressing.
- You might feel the brake pedal pushing back when the ABS is working. Do not let up on the brake pedal. The ABS will only work with the brake pedal pushed down.

## USING BRAKE LIGHTS TO COMMUNICATE WITH OTHER DRIVERS

If you are going to stop or slow down at a place where another driver does not expect it, or if the vehicle behind you is following too closely, tap your brake pedal three or four times quickly. This will let those behind you know you are about to slow down.

## REQUIRED STOPS

**You must always stop:**

- At all stop signs.
- Before crossing a sidewalk when exiting a private roadway, driveway, alleyway, etc.
- When entering a public road from a private drive including, but not limited to, parking lots, businesses, schools, gas stations.
- At the request of any law officer.
- When instructed by a construction work zone flagger.
- At a flashing red light, then go ahead if it is clear.
- At all red traffic lights, including where right turns on red are allowed.
- When a visually impaired person with a cane (often white or red-tipped) or guide dog is walking in front of you or close enough to you that the person could be in danger.

See page 12 regarding stops at railroad crossings and page 20 for stops when approaching school buses displaying flashing lights and/or stop arms.

## 4.5 APPROPRIATE SPEED

The posted speed limit is the MAXIMUM speed you can legally drive **under ideal driving conditions.** Your speed should depend on the posted speed limit, road conditions, and weather. The faster your vehicle is going, the more distance it will take to turn, slow, or stop. For example, a vehicle traveling 60 mph will travel 3 times further than a vehicle traveling 30 mph before coming to a stop. *(See figure 4.1)*

**In the event the speed limit is not posted, the following general limits have been set:**

- 20 mph in any business district
- 25 mph in a residential district or school district
- 45 mph in any suburban district
- 45 mph for any vehicle pulling another vehicle
- 50 mph on unsurfaced secondary roads from sunset until sunrise, and for all trucks on secondary roads at any time of day
- 60 mph on all primary roads, urban interstate highways, and secondary roads, including unpaved roads from sunrise to sunset
- 70 mph on rural interstate highways

A lower limit may be set for any conditions listed above.

While driving too fast is a major cause of crashes, driving too slow may also cause a crash. Try to drive with the general traffic flow on any road. On the interstate system there is a minimum speed of 40 mph. Vehicles that cannot go at least that fast under normal conditions are not allowed on the interstate.

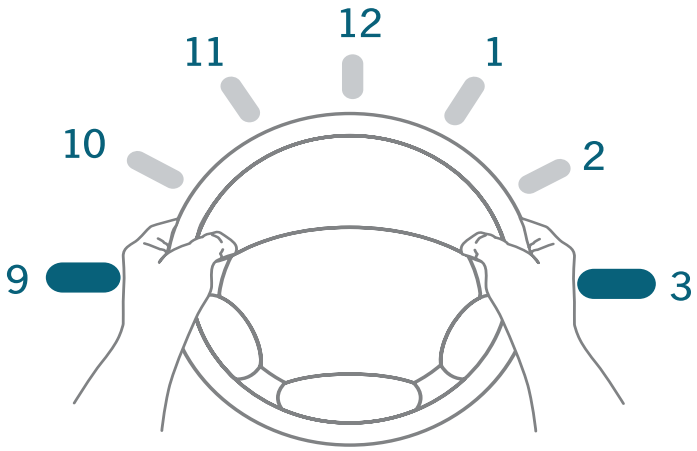
## 4.6 STEERING

### GRIPPING THE WHEEL

To reduce the risk of injury from front airbags and best maintain control of your vehicle, use a proper grip. Your hands should be placed on opposite sides of the steering wheel at 9 and 3 o'clock or slightly lower at 7 and 5 o'clock. *(See Figure 4.3)*

- Look well down the road, not just immediately in front of you. Look for traffic situations where you will need to steer before you get to them. This way, you have time to steer smoothly and safely.
- When turning corners, turn the steering wheel using the "hand-over-hand" or the "push-pull" technique.
- Do not turn the wheel with just the palm of one hand; you could lose control. When you complete a turn, straighten out the steering wheel by hand. Letting it slip through your fingers could be dangerous.

**Figure 4.3: Steering wheel hand position**



# 4.7 BACKING

It's harder to maintain control when driving in reverse. Backing up should be done at slow speeds. Use the accelerator carefully, if at all.

- Backing up requires you to turn your head to see beyond the head restraint. Do not depend on mirrors or backup cameras alone as they don't provide a full view and can be misleading in depth perception.
- Shift your hips and turn around to get a good view behind the vehicle. Drape your right arm over the back of the seat, grasp the top of the steering wheel with your left hand, and look over your right shoulder through the rear window.
- Check all areas behind the vehicle and in the vehicle's blind spots prior to and while backing up.
- Release the brake, then use the accelerator gently, and only when necessary, to control speed. Keep it slow.
- Turn your wheel in the direction you want the car to travel.
- Look in the direction the car is moving through the rear side windows.

# 4.8 PROPER TURNING TECHNIQUES

Plan your turns ahead of time. Decide where you want to be when you finish the turn. Give yourself a chance to slow down and watch out for pedestrians and other vehicles. Last minute sharp turns are dangerous and should be avoided.

Do not cut corners, and do not swing wide on your turns. These actions increase your chances of being in a crash.

## TURN SIGNALS

Turn signals communicate your intentions to others and give them time to react. You should use your turn signals before you change lanes, turn right or left, merge into traffic, or park.

- Signal every time you change direction. Signal even when you do not see anyone else around. There may be vehicles, pedestrians, or cyclists in your blind spot. It is easy to miss someone who needs to know what you are doing.
- Iowa law requires you to signal at least 100 feet before a turn if the speed limit is 45 mph or less and if the speed limit is faster than 45 mph, you must signal at least 300 feet before you turn.
- As a rule of thumb, signal prior to slowing down.
- Be careful that you do not signal too early. If there are streets, driveways, or entrances between you and where you want to turn, wait until you have passed them to signal.
- If another vehicle is about to enter the street between you and where you plan to turn, wait until you have passed it to signal your turn. If you signal earlier, the other driver may think you plan to turn where that driver is and he/she might pull into your path.
- Ensure the turn signal is off after the turn.

## TURNS ON RED, AFTER A STOP

At a traffic signal, you may make a right turn at a red light unless there is a "NO TURN ON RED" sign. Prior to safely turning, you must come to a complete stop and yield to all other traffic.

You may also make a left turn at a red light if you are turning from the left lane of a one-way street onto another one-way street.

## TURNING MANEUVERS

### U-Turns

U-Turns should only be performed where their use is not prohibited and where it is safe to do so.

### Three-point turns

Three-point turns are generally not a safe maneuver and can increase your risk and exposure to collisions. It is better to proceed to the nearest intersection.

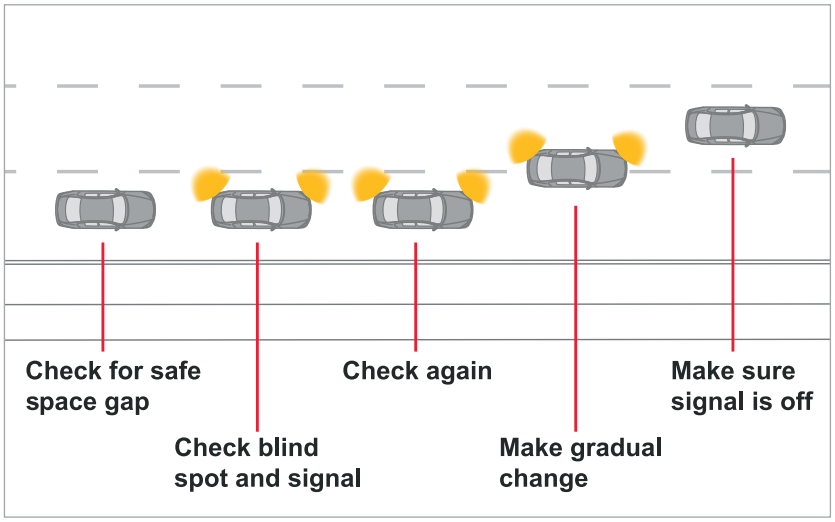
# 4.9 CHANGING LANES

Lane changes include:

- Changing from one lane to another.
- Merging onto a roadway from an entrance ramp.
- Entering the roadway from the curb or shoulder.

Only change lanes one lane at a time. Before changing lanes, check traffic around you and confirm there is space to safely enter the lane and yield to any vehicles already in that lane *(see figure 4.4)*

**Figure 4. 4: Changing lanes**




**Signal:** Inform other drivers of your plans by proper signaling.

**Maintain speed:** When you do make your lane change, do it carefully but without slowing down unless you are moving into a slower lane of traffic. While you are changing lanes, constantly check traffic so you will see anyone coming up on you unexpectedly.

**Check your mirrors:** Look in your rearview and side mirrors. Make sure there are no vehicles in the lane you want to enter. Make sure that nobody is about to pass you.

**Check your blind spots:** Look over your shoulder in the direction you plan to move. Be sure no one is near the rear corners of your vehicle.

When you turn your head to check the blind spots, make sure you keep the steering wheel straight; people have a natural tendency to turn their arms in the same direction as their head.

**Check for other road users:** Be sure to check the far lane, if there is one, as someone in that lane may be planning to move into the same lane you want to enter.

# 4.10 PASSING

Only pass another vehicle when signs (page 8) or road markings permit you to pass (figure 4.5), AND you've determined you have enough room to pass safely. Only pass when it is necessary.

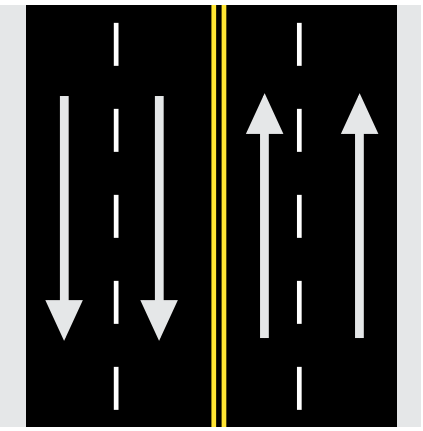
- As a rule, only pass one vehicle at a time.
- Avoid passing in places where a vehicle may enter the roadway ahead of you such as intersections and driveways.

If passing is necessary, take the following steps:

1. Check the passing lane ahead to make sure there's plenty of space before you try to pass.
2. Check mirrors and blind spots for traffic.
3. Signal intent to pass and accelerate as needed.
4. While passing, monitor the space in front of, and behind your vehicle, and check the rearview mirror.
5. When you see the front of the passed car in the rearview mirror and your vehicle is well clear, signal intent, gently and slowly move back to the original lane, cancel the signal, and return to a safe speed.

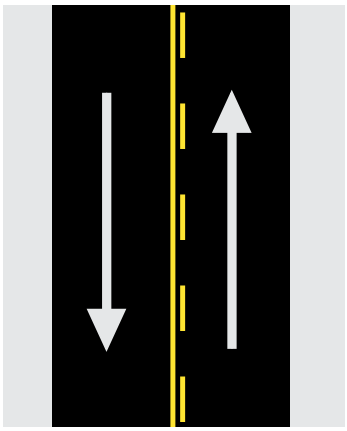
## PAVEMENT MARKINGS INDICATE PASSING RULES

**Figure 4.5: Pavement markings that indicate passing rules**



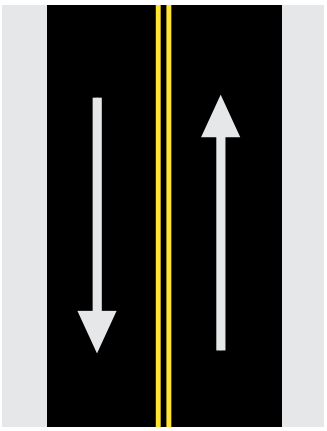
**DOUBLE YELLOW CENTER LINE WITH BROKEN WHITE LANE LINES**

No passing either way over center yellow lines. Broken white lines separate traffic traveling in the same direction. Passing is allowed when a broken white line is in your lane.



**SOLID AND BROKEN YELLOW LINES**

Do not pass when solid line is in your lane. In this example, the left lane cannot pass. Traffic in the right lane can pass.



**DOUBLE YELLOW CENTER LINE**

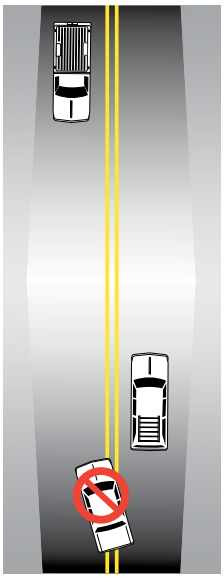
No passing in either lane.

Yellow lines separate traffic traveling in different directions

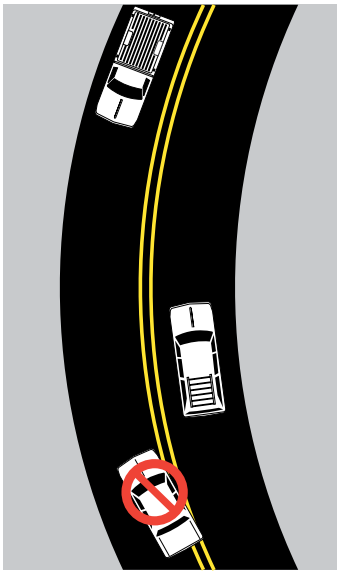
White lines separate traffic traveling in the same directions

## PASSING IS ILLEGAL IN THE FOLLOWING SITUATIONS:

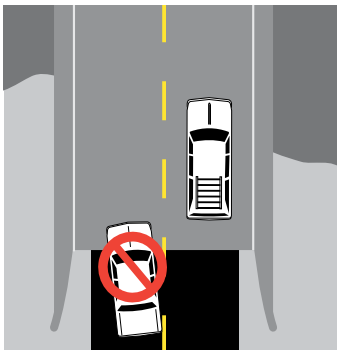
**Figure 4.6: Illegal passing situations**



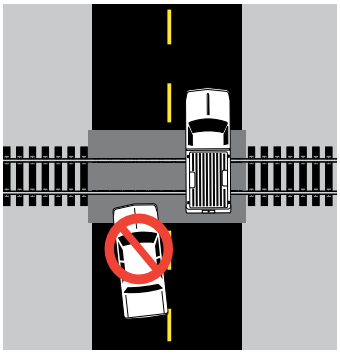
Do not pass when approaching the top of a hill.



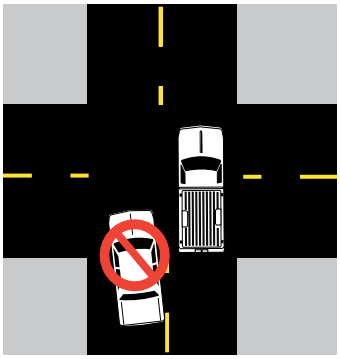
Do not pass going around a curve when your view along the roadway is obstructed.



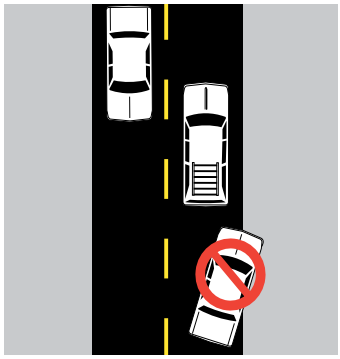
Do not pass within 100 feet of a narrow bridge, viaduct, or tunnel that has a sign posted to let you know it is there.



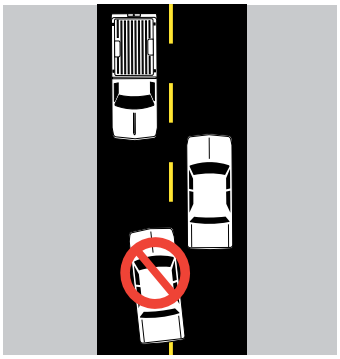
Do not pass within 100 feet of a railroad crossing.



Do not pass within 100 feet of an intersection.



Do not pass on the right.



Do not pass when oncoming traffic is so close it would be dangerous to try to make it around the vehicle you are passing.

# 4.11 DEFENSIVE DRIVING

When you drive safely and use defensive driving techniques, you're aware and ready for whatever happens. **94 percent of serious crashes are due to dangerous choices or errors people make behind the wheel.** Follow these defensive driving techniques to help reduce your risk of being involved in a crash:

### 1. Think safety first.

Avoiding aggressive and inattentive driving tendencies yourself will put you in a stronger position to deal with other people's driving choices. Leave plenty of space between you and the car in front. Always wear your seatbelt to protect you from being thrown from the car in a crash.

### 2. Be aware of your surroundings — pay attention.

Check your mirrors frequently and scan conditions 20 to 30 seconds ahead of you. Keep your eyes moving. If another driver is showing signs of aggressive driving, slow down or pull over to avoid them. If the driver is driving so dangerously that you're worried, try to get off the roadway by turning right or taking the next exit if it's safe to do so. Also, keep an eye on pedestrians, bicyclists, and animals along the road.

### 3. Do not depend on other drivers.

Be considerate of others but look out for yourself. Do not assume another driver is going to move out of the way or allow you to merge. Assume that drivers will run through red lights or stop signs and be prepared to react. Plan your movements anticipating the worst-case scenario.

### 4. Follow the 3- to 4-second rule. *(See figure 4.2 on page 41)*

Maintain a safe following distance to allow for time to react if necessary.

### 5. Keep your speed down.

Posted speed limits apply to ideal conditions. It's your responsibility to ensure that your speed matches conditions. In addition, higher speeds make controlling your vehicle that much more difficult if things go wrong.

### 6. Have an escape route.

In all driving situations, the best way to avoid potential dangers is to position your vehicle where you have the best chance of seeing and being seen. Having an alternate path of travel also is essential, so always leave yourself an out — a place to move your vehicle if your immediate path of travel is suddenly blocked.

### 7. Eliminate distractions.

A distraction is any activity that diverts your attention from the task of driving.

Driving deserves your full attention — so stay focused on the driving task.

# 4.12 DRIVING SAFELY IN TRAFFIC

## KEEP PACE WITH TRAFFIC

Vehicles moving faster or slower than the flow of traffic result in an increased number of lane changes, passing, and instances of following too closely. This increases the chance of potential collisions between vehicles. The safest roadways are when all vehicles travel the same speed but do not exceed the speed limit.

## SLOW-MOVING TRAFFIC

Always be ready to change your speed to match the speed of traffic. Some vehicles cannot travel very fast or have trouble keeping up with the flow of traffic. If you spot these vehicles early, you have time to change lanes or slow down safely. Slowing suddenly can cause a crash.

Farm vehicles, horse-drawn vehicles, ATVs/UTVs, and roadway maintenance vehicles normally travel at slower speeds. These vehicles may have a slow-moving vehicle sign (an orange triangle or flashing lights) on the back.

## FOLLOWING ANOTHER VEHICLE

Many collisions are caused by following the vehicle ahead too closely. You must be able to stop before hitting anything in front of you. Higher speeds require greater stopping distances. Keep this in mind when following another vehicle. The safest and easiest way to judge a safe following distance is to use the "Three-Four Second Rule" *(see figure 4.2 on page 41)*. This will keep the vehicles in front of you far enough ahead that you will be able to safely stop if needed.

## TAILGATING

If you are being tailgated, move slightly to the right and give the tailgater a better view of what is ahead and signal early for turns, stops, or lane changes. Try slowing down and encouraging the driver behind you to pass. If all else fails, pull out of the traffic flow.



# 4.13 COMMUNICATING - HEADLIGHTS, HORN, & EMERGENCY SIGNALS

Some drivers do not always pay attention to what is going on around them. Crashes often happen because one driver does not see another driver, or when one driver does something the other driver does not expect. It is important that drivers let other road users know they are there, and what they plan to do.

## HEADLIGHTS

Besides helping you to see at night, headlights help other drivers see you. Turn on your headlights whenever you are having trouble seeing other vehicles, as they are likely having trouble seeing you. Examples include fog, heavy rain, or snow.

Many vehicles are equipped with headlights that turn on automatically, but in some conditions, such as daytime snowstorms, the ambient light is bright enough your automatic headlights must be turned on manually.

Iowa law requires the use of both headlights from sunset to sunrise or whenever visibility is 500 feet or less, (fog, heavy rain, snow, etc.). A good rule of thumb is to turn your headlights on whenever you turn your windshield wipers on.

## HORN

In some cases, your horn can be used to get the attention of another driver and prevent a crash. Use your
horn when:

- A pedestrian or bicyclists appears to be moving into your lane of travel.
- You are passing a driver who starts to turn into your lane.
- There is a driver who is not paying attention or who may have trouble seeing you.
- You are coming to a place where you cannot see what is ahead, such as exiting a narrow alley.
- Another car is in danger of hitting you.
- You need to alert other vehicles, drivers, pedestrians, or animals of your presence.
- You have lost control of your vehicle and are moving toward someone.

## HAZARD LIGHTS

If your vehicle breaks down on the road, make sure that other drivers can see it. All too often collisions occur because a driver did not see a stalled vehicle until it was too late to stop. Here are some guidelines if you are having vehicle trouble and must stop.

- If possible, safely move your vehicle off the road and away from traffic.
- Turn on your emergency hazard lights to show you are having trouble.
- If you cannot get your vehicle off the roadway, try to stop where other drivers have a clear view of your vehicle. Do not stop just over a hill or just around a curve.
- If you are stalled in a traveled lane, you and your passengers should exit the vehicle quickly and stand in a safe area; when possible, away from the shoulder of the road and far from moving vehicles.
- Notify authorities that you or someone else has broken down.



CHAPTER 5

# APPLYING YOUR DRIVING SKILLS

Now that we've covered a lot of the basics, it's time to learn how your knowledge of driving applies to different scenarios and environments. In addition, you will also learn techniques for driving in unexpected situations, such as bad weather and emergencies.

## 5.1 INTERSECTIONS

Intersections are any place where traffic merges or crosses. They include: cross streets, side streets, driveways, parking lots, and roadways open to public travel.

- **Step 1:** Before you enter an intersection, look ahead to identify the type of intersection and any traffic control devices (signs, traffic signals, and pavement markings).
- **Step 2:** Scan the intersection before proceeding to ensure the path is clear through the intersection.
- **Step 3:** Look left, right, and left again for approaching vehicles and pedestrians. Never assume another driver will share space with you or give you space.

Beware of the "false" turn signal. Do not turn just because an approaching vehicle has a turn signal on. The driver may plan to turn beyond you or has forgotten to turn the signal off from a prior turn. This is particularly true of motorcycles; their signals often do not cancel by themselves. Wait until the other driver starts to turn and then proceed if it is safe to do so.

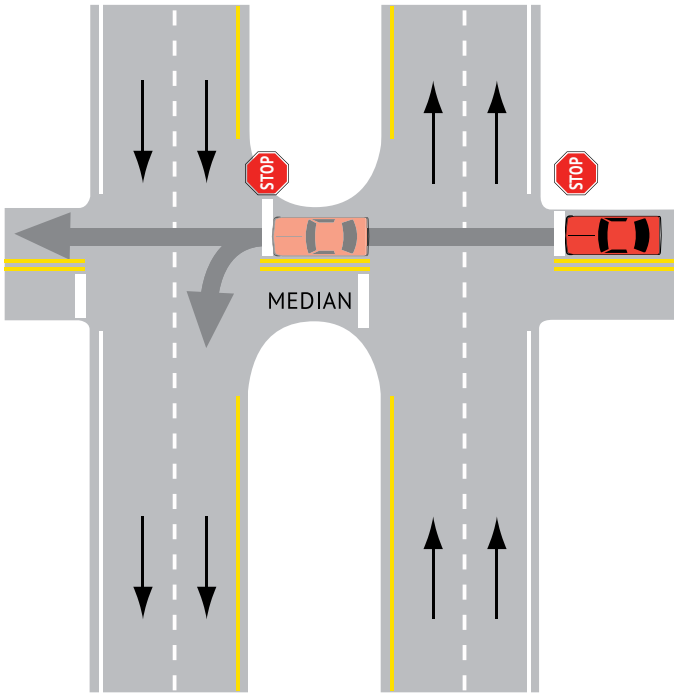



**Figure 5.1: Crossing or turning left onto a rural four-lane road**

### CROSSING OR TURNING LEFT ONTO A RURAL FOUR-LANE ROAD

*(See figure 5.1)* Do not try to cross both directions of traffic at one time to avoid stopping in the median. Safely cross this intersection by taking the following steps:

1. Stop at the stop sign, look left and proceed into the median when safe to do so.
2. Remain stopped in the median. Look right. Cross or turn left when it is safe to do so.

Drivers must be aware that traffic is moving very fast in this environment. Caution and concentration are very important. Be aware that longer vehicles, such as semis, may not be able to stop in the median if the median is narrow.

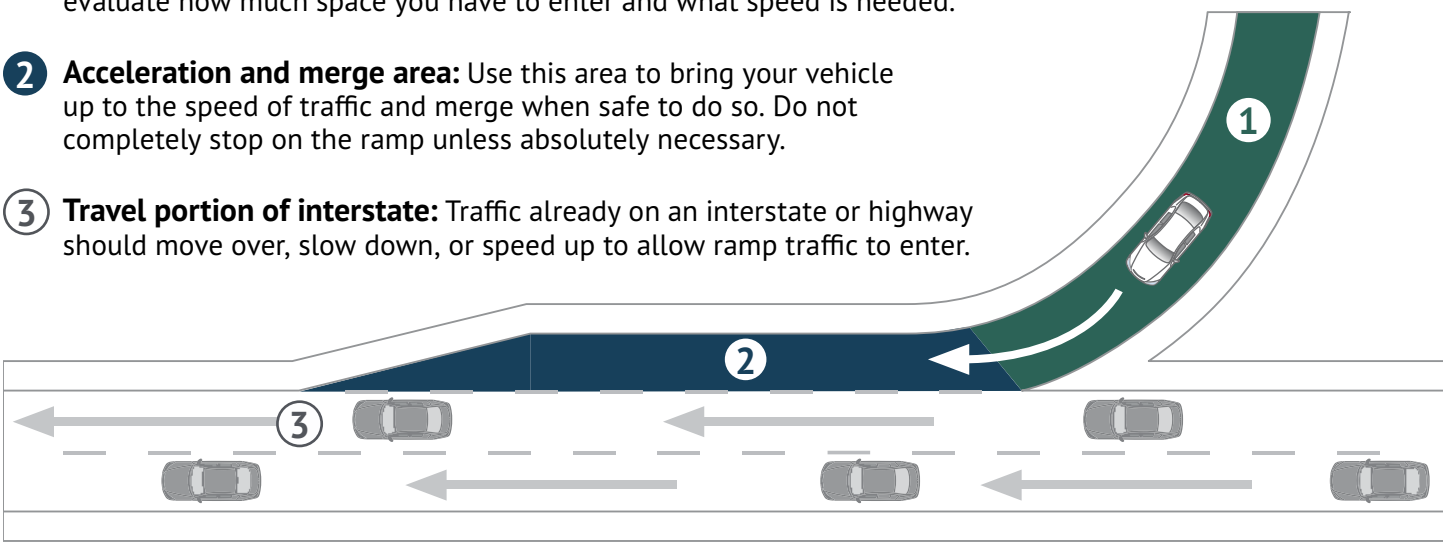
## 5.2 INTERSTATE AND HIGHWAY DRIVING

### ON-RAMPS

On-ramps are used to enter an interstate or highway and contain three segments. *(See figure 5.2)*

**Figure 5.2: On-ramp segments**

1. **Entrance area:** This stretch gives you time to scan the roadway and evaluate how much space you have to enter and what speed is needed.
2. **Acceleration and merge area:** Use this area to bring your vehicle up to the speed of traffic and merge when safe to do so. Do not completely stop on the ramp unless absolutely necessary.
3. **Travel portion of interstate:** Traffic already on an interstate or highway should move over, slow down, or speed up to allow ramp traffic to enter.



## 5.3 REDUCED-CONFLICT INTERSECTION

Reduced-conflict intersections are designed to reduce the number of conflict points where vehicles can crash into each other. Drivers on the side road wanting to turn left or cross the four-lane highway will turn right onto the highway, merge into the left lane and then make a U-turn at a designated median opening. Reduced-conflict intersections improve safety because drivers are only concerned with one direction of traffic on the highway at a time. You don't need to wait for a gap in both directions to cross the major road. (See figure 5.3)

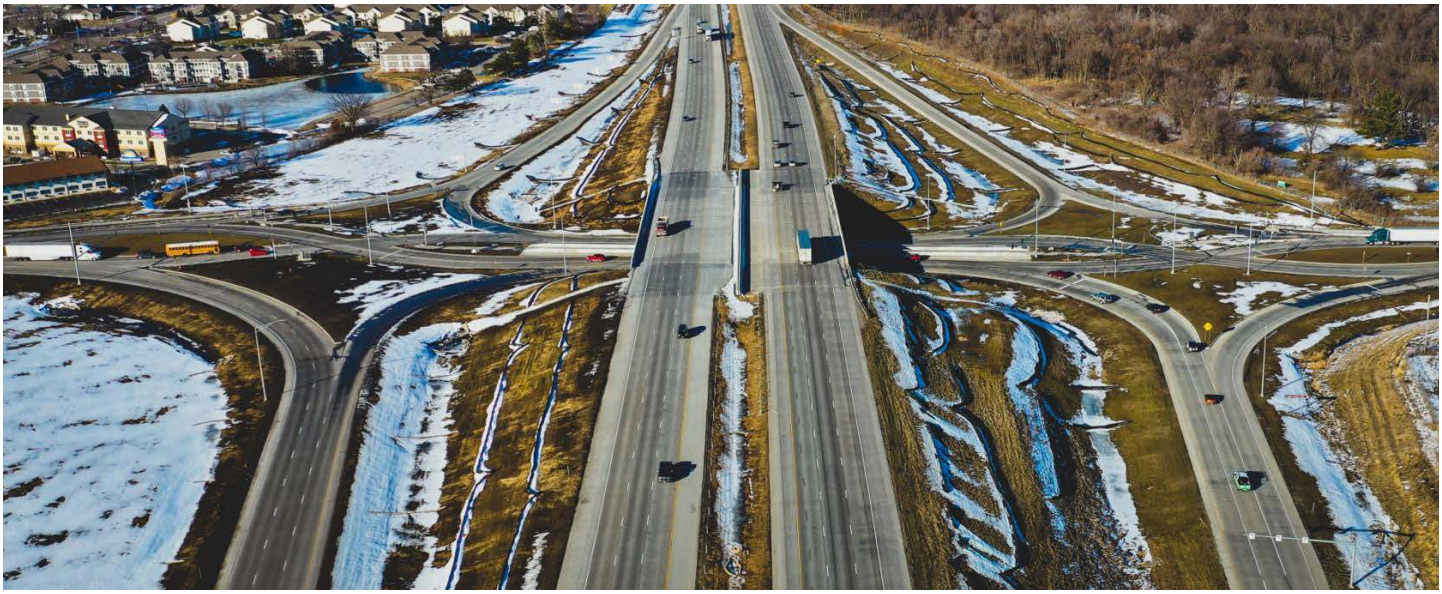
SCAN ME

**LEARN MORE ON OUR YOUTUBE CHANNEL**

Scan the QR code to watch a video about reduced-conflict interchanges.

**Figure 5.3: Reduced-conflict interchange**
**(Example shows the reduced-conflict interchange at U.S. 20 and Poplar Ave. in Webster County)**





## 5.4 DIVERGING DIAMOND INTERCHANGE

This type of interchange is used at the intersection of two high-volume traffic roads. The unique design is unusual because it directs drivers on the opposite side of the road briefly before diverging back into the correct direction. A diverging diamond interchange maximizes efficiency by requiring traffic to spend less time at a traditional traffic light controlled intersection. *(See figure 5.4)*

SCAN ME

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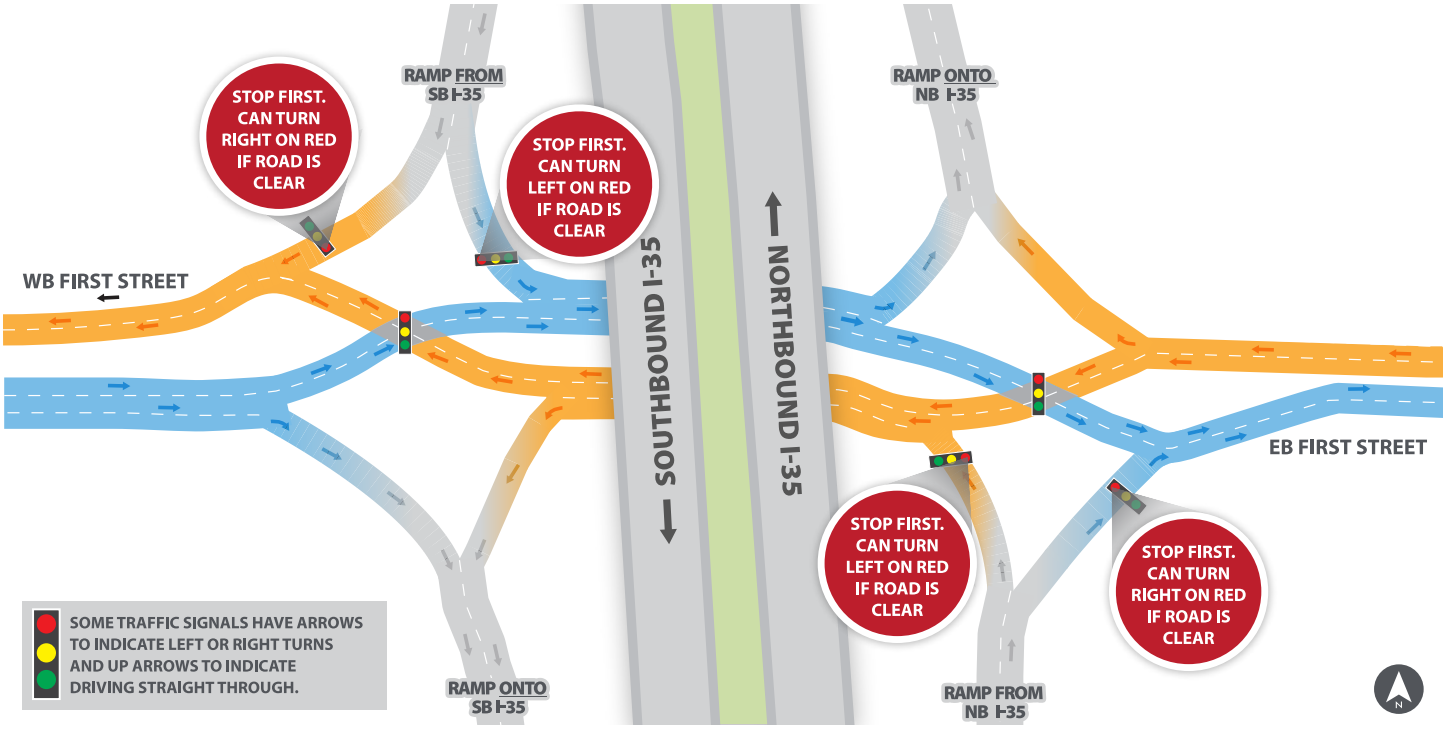
Scan the QR code to watch a video about diverging diamond interchanges.

**Figure 5.4: Diverging diamond interchange**
**(Example shows the I-35 and First Street diverging diamond interchange in Ankeny.)**





# 5.5 ROUNDABOUTS

Roundabouts are intersections that direct traffic in a counterclockwise direction around a center island. They have no stop signs or traffic signals. Yield signs, directional signs, and pavement markings guide traffic through the intersection. Traffic generally continues to move, but at a slower speed that reduces traffic backup encountered at traditional intersections controlled by stop signs or traffic signal.

## SINGLE-LANE ROUNDABOUT

*(see figure 5.5)*

### Motorists

**Approach**: Slow down to the posted advisory speed and yield to anyone in the crosswalk.

**Enter**: As you approach the yield line markings, yield to vehicles in the roundabout. Wait for a gap in traffic, then merge into traffic in the roundabout in a counterclockwise direction.

**Proceed**: Continue through the roundabout until you reach your street. Avoid stopping in the roundabout.

**Exit**: Signal, then exit the roundabout to your right. Yield to anyone in the crosswalk.

### Pedestrians

**Approach**: At the crosswalk, look left.

**Cross**: Cross to the raised splitter island. Look right. Finish crossing to the opposite sidewalk.

### Cyclists

Generally, cyclists should walk their bicycles across the crosswalk using the same rules as pedestrians. Experienced cyclists may navigate roundabouts like motorists. Do not hug the curb. Bicyclists using the roundabout should follow the same rules as motorists. Ride in the middle of the lane to prevent vehicles from passing. Yield to anyone in the crosswalks.

## MULTI-LANE ROUNDABOUT

*(see figure 5.6)*

### Do

- As you approach the roundabout, and in advance of the yield line, select the appropriate lane according to the lane control signs and pavement markings.
- When entering the roundabout, yield to all traffic already in the roundabout.
- After passing the street before your exit, signal for a right turn, then exit.
- Be aware of traffic in the other lane.

### Don't

- Do not change lanes in the roundabout.
- Do not pass or drive beside trucks or buses. They may straddle lanes or may not see you.
- Do not drive in the outside lane farther than allowed. This decreases the efficiency of the roundabout and creates a hazard to vehicles legally exiting from the inside lane.

SCAN ME

**LEARN MORE ON OUR YOUTUBE CHANNEL**

Scan the QR code to watch a video about roundabouts.

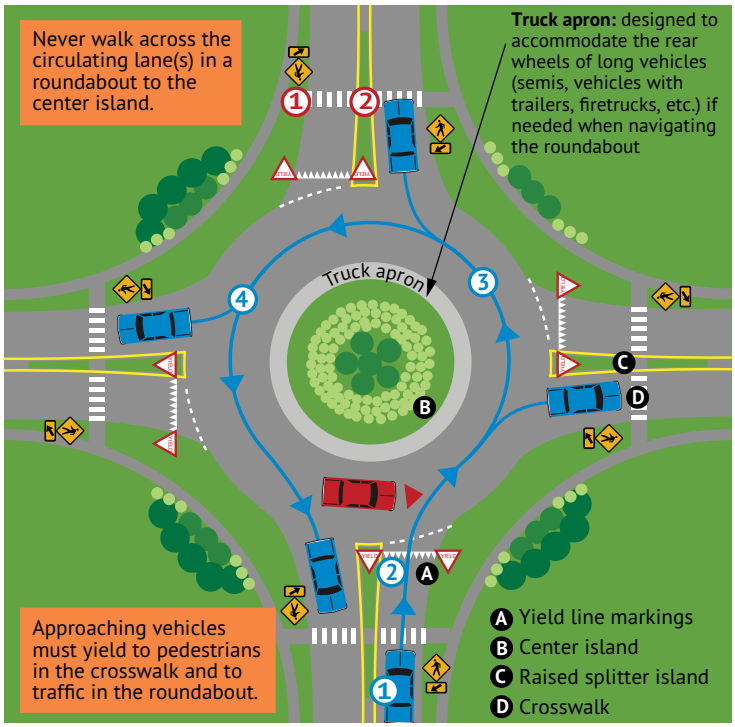



Figure 5.5: Single-lane roundabout

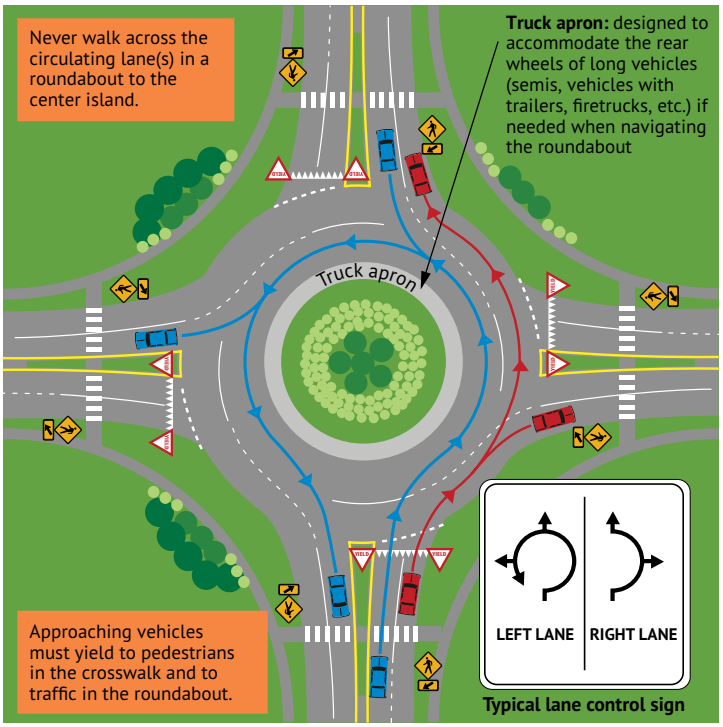



Figure 5.6: Multi-lane roundabout

## 5.6 RURAL/GRAVEL ROAD DRIVING

Some road conditions and driving hazards are unique to rural gravel and dirt roads when compared to paved roads. Be aware and adjust for the following.

### REDUCED TRACTION

Driving on loose gravel is harder than driving on pavement because your tires don't have the traction needed to give you stable control. Slow down, avoid sudden turning, accelerate and brake slowly, and increase your following distance.

### RESTRICTED VISIBILITY

Trees, cornfields, buildings, hills, and dust can block a driver's view of oncoming vehicles, or vehicles entering from the side. Identify blind spots to better anticipate and be prepared for potential dangers.

### UNCONTROLLED INTERSECTIONS

Uncontrolled intersections are more common on gravel roads. They are not controlled by yield or stop signs. All drivers should use caution, slow down, and be prepared to stop for oncoming traffic. Remember, you can't always rely on dust clouds to determine if crossing vehicles are approaching.

**AT AN UNCONTROLLED INTERSECTION, THE VEHICLE ON THE LEFT SHOULD YIELD. NEVER ASSUME THE INTERSECTION IS CLEAR, OR THAT THE OTHER VEHICLE WILL STOP.**

### SOFT SHOULDERS

Shoulders on rural roads are typically soft and less compact than the center of the roadway. Shoulders with loose gravel/debris make vehicles more difficult to control and will pull your vehicle toward the ditch. Always slow down when encountering another vehicle or anytime you're driving near or on the shoulder of a gravel road.

### DUST

Use low beam headlights to make your vehicle more visible to others during extremely dusty conditions

### ENCOUNTERING ONCOMING VEHICLES

Rural gravel roadways are narrower and do not contain lane markings. Slow down and proceed with caution, moving as far to the right as safe to do so. Multiple vehicles create dust clouds and reduced visibility.

### NARROW BRIDGES

Drivers should use caution when approaching narrow bridges. Many bridges on rural gravel roads are narrower than the roadway and can only accommodate one vehicle at a time. Be prepared to stop for oncoming traffic.

### STEEP HILLS AND CURVES

Before reaching the crest of a hill or before entering a curve, slow down, move to the right side of the road and watch for oncoming vehicles. Hills and curves on rural roads are often steeper and sharper than on highways.

### RAILROAD CROSSINGS

Always slow down, look both ways, and be prepared to stop for a train before crossing the tracks. Unlike most railroad crossings on major roads, there are typically no red flashing lights, warning bells, crossing gates or pavement markings at rural road railroad crossings.

### LARGE AND/OR SLOW-MOVING VEHICLES

It is common to encounter slow-moving and large vehicles such as farm equipment, ATV/UTVs, bicycles, horse drawn vehicles, and road maintenance equipment on rural roads. It is important to identify these vehicles early and slow down when approaching.

Large farm equipment may make wide turns at unmarked entrances. Some farm equipment is wider than the road itself. Proceed with extreme caution when attempting to pass. They may not see your vehicle and a turn-signal may be difficult to detect.



## 5.7 NIGHT DRIVING

Keep the following in mind when driving in the dark.

- To compensate for reduced visibility, lower your speed and increase your following distance.
- Glare from oncoming headlights makes it difficult to see. Looking toward the right side of the road and adjusting the rearview mirror can help to reduce headlight glare.
- Headlights should be turned on before the sun goes down to make the car more visible.
- High beams should only be used when other drivers won't see them, such as isolated roadways with little traffic.
- If you are blinded by another vehicle's headlights, slow down and watch the white stripe at the right edge of the pavement. The bright light may make you feel somewhat blinded, but the feeling quickly disappears.




## 5.8 DEER AND OTHER ANIMALS

Be on the lookout for animals while driving, especially at sunrise and sunset. **If an animal is encountered, and there isn't time to stop, don't swerve or veer as this will likely result in a more severe crash.** If you hit a deer or other animal, follow standard crash protocol *(see section 5.15 on page 63)*.

One of the leading causes of crashes on Iowa roadways is wildlife, typically with deer. October, November and May are the peak months for deer collisions; however, they can occur at any time of the year. Deer travel in groups, so always look for more animals if one is seen.

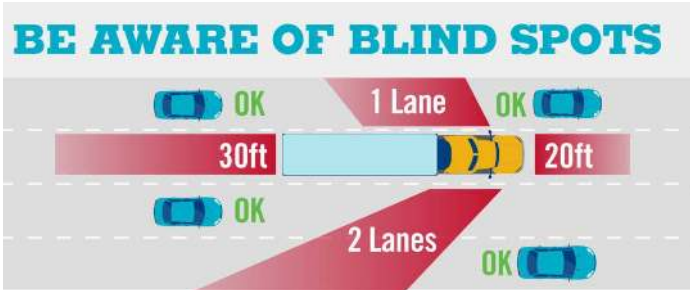
## 5.9 SHARING THE ROAD WITH LARGE TRUCKS

In crashes involving large trucks, the occupants of a car – usually the driver – sustain 78 percent of fatalities. In order to keep yourself and your passengers safe, use extra caution when driving around large trucks and buses. Sharing the road with larger vehicles can be dangerous if you are not aware of their limitations.

### WATCH BLIND SPOTS – THE "NO-ZONES"

Large trucks have blind spots, or "no-zones," around the front, back, and sides of the vehicle. These "no-zones" make it difficult for truck drivers to see. Avoid being caught in a truck's "no-zone". If you can't see the truck driver in the truck's mirror, the truck driver can't see you. *(See figure 5.7)*

**Figure 5.7: Semi "no-zones"**
*Graphic courtesy of FMCSA, sharetheroadsafely.gov*




### AVOID EMERGENCY BRAKING SITUATIONS

Trucks and buses take much longer to stop in comparison to cars. When passing, look for the front of the truck in your rearview mirror before pulling in front, and avoid pulling out in front of trucks, creating an emergency braking situation.

### BE CAREFUL OF TRUCKS MAKING WIDE RIGHT TURNS

Truck drivers sometimes need to swing widely to the left in order to safely negotiate a right turn. They can't see cars directly behind or beside them. Cutting in between the truck and the curb increase the possibility of a crash. So pay attention to truck signals, and give them lots of room to maneuver.

## 5.10 SHARING THE ROAD WITH MOTORCYCLES

- Respect the vehicle space of a motorcycle and its position in traffic.
- Intersections are the most likely places for car/motorcycle collisions to occur. Make sure you see the motorcycle and know its speed before you start to turn or enter an intersection.
- Turn signals do not automatically shut off on a motorcycle and riders occasionally forget to cancel them after a turn is completed. Make sure you know what the rider is going to do BEFORE you move into the motorcycle's path.
- When driving behind a motorcycle, allow at least a 3-4 second following distance. This provides the cyclist enough room to maneuver or stop in an emergency. When the road is wet or slippery, stay further behind. With only two wheels in contact with the pavement, motorcycles may be very unstable when trying to stop quickly.
- When passing a motorcycle, allow a full lane for the motorcycle; never crowd into the same lane as the cycle.
- Watch for the unexpected and give motorcyclists their share of the road.

## 5.11 SHARING THE ROAD WITH BICYCLISTS AND PEDESTRIANS

### Scan the Street for Wheels and Feet

Be especially careful to look for pedestrians, bicyclists, skaters, and people using wheelchairs or low-speed micromobility devices before turning at intersections and driveways.

### Yield to Pedestrians

Pay attention to the pedestrian signal and give the right-of-way to people walking, biking, skating, or on a wheelchair or low-speed micromobility device.

### Use Caution When Passing Stopped Vehicles

Never pass another vehicle that has stopped or is slowing down for a pedestrian. Remember, you might not be able to see the pedestrian when you approach a stopped vehicle, so be aware.

### Watch for Bikes

People riding bicycles have the right to be on the road and are often prohibited from riding on sidewalks, so respect their right to be there.

### Passing Safely

When passing bicyclists, you must completely change lanes, giving the bicyclist the entire lane like you would with any other vehicle. Do not return to the right until you can see the bicyclist(s) in your rearview mirror.

### Visibility

Look for bicyclists at night and watch for their reflectors or lights.

### Check Blind Spots

Watch for bicyclists coming from behind, especially before turning right.



## 5.12 CLOSED VEHICLES ON A HOT DAY

**NEVER leave children, elderly persons, dependent persons, or pets in an enclosed vehicle alone.**

Depending on the temperature and humidity, the inside of a vehicle can soar above 160 degrees in less than 10 minutes. Even on a mild, 78 degree day, the inside of a parked vehicle can reach 100 degrees in minutes.

Long exposure to extreme heat may lead to a heat stroke or death. If you see someone suffering from symptoms of heat stroke, call 911 and seek medical attention immediately. In Iowa it is legal for you to break a vehicle's window in order to provide medical attention to a person or animal trapped inside.

## 5.13 INCLEMENT WEATHER DRIVING

**The best way to prepare for inclement weather driving is to avoid getting caught by surprise. Do your research before you go so you can determine if you need to adjust or postpone your trip.** Visit 511ia.org or download the free Iowa 511 app to view traveler information such as weather-related road conditions 24/7. 511 also provides images from dash-mounted snowplow cameras and live-feed traffic cameras so you can get a first hand look at conditions without ever stepping foot outside. *(See figure 5.8)*

IF YOU MUST DRIVE IN INCLEMENT WEATHER, SLOW DOWN AND INCREASE YOUR FOLLOWING DISTANCE, GIVING YOU MORE TIME TO STOP. DO NOT USE CRUISE CONTROL DURING INCLEMENT WEATHER.

Ensure your vehicle is prepared for any inclement weather by following routine maintenance *(see page 23 for vehicle maintenance)*. It's also a good idea to keep a vehicle emergency kit with you at all times, especially during winter. *(See figure 5.9)*




**Figure 5.8: 511 for inclement weather**

**Figure 5.9: winter survival kit**



## WET/SLIPPERY ROADS

Be cautious when driving before, during, and after precipitation. Precipitation may cause reduced vision, alter the driving habits of others, and change the friction between your vehicle and the road. Practice the following:

- Turn on the wipers as soon as the windshield becomes wet.
- Turn on the low-beam headlights; this helps others see you.
- Drive slower than normal and increase your following distance to five or six seconds.
- Be more cautious and slow down on curves and when approaching intersections.
- Turn the defroster on to keep windows from fogging over.

**DO NOT USE CRUISE CONTROL IN WET OR SLIPPERY CONDITIONS.**

If you must make adjustments while driving, make sure the road ahead is clear before looking down at the dashboard — and look away for only a second or two.

## HYDROPLANING

Hydroplaning occurs as a result of water on the road that is deeper than the tire tread. This layer of water reduces friction with the tires and can result in the loss of control. If you can see deep water on the road, reflections on the pavement, or if the car ahead leaves no tracks on the water, your car could hydroplane. Slow down.

## FLOODED ROADWAYS

Almost half of all flash flood deaths happen in vehicles. Moving water is extremely powerful and very easy to underestimate. As little as 6 inches of water may sweep away a vehicle, including SUVs and pickups.

- Never drive through a flooded road or bridge. The road surface beneath the water could be entirely washed out. Turn around and find a different route.
- Do not stay in a flooded vehicle. If your vehicle is stalled in floodwater, abandon the vehicle and move to higher ground.
- If your car is swept into the water and submerged, remain calm. Wait for the vehicle to fill with water. Once the vehicle is full, the doors are easier to open. Hold your breath and swim to the surface.

## FOG

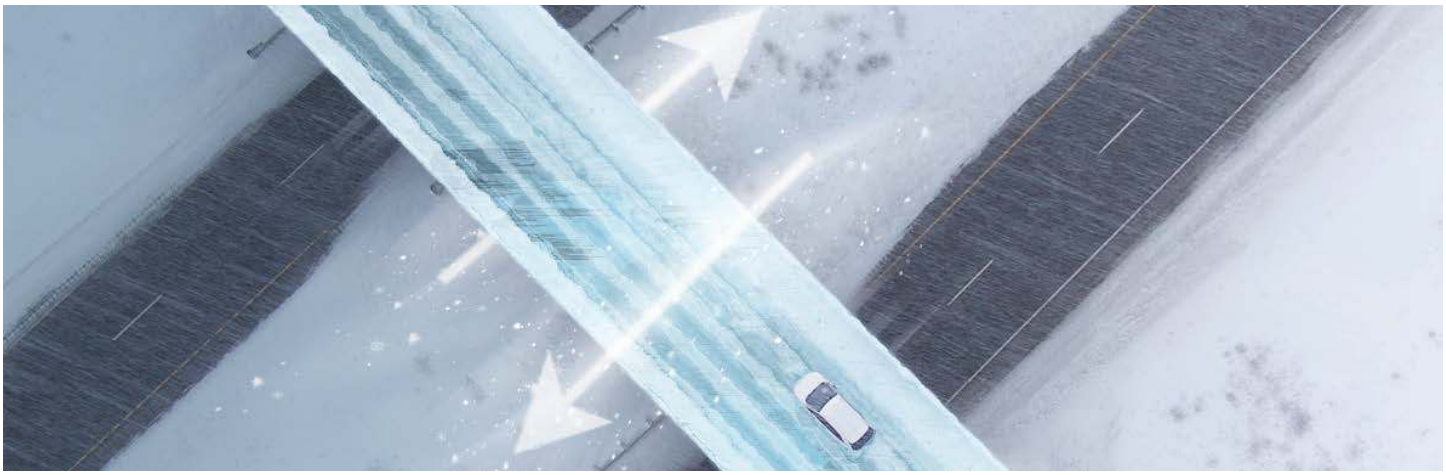
- Use low-beam lights or fog lights if your vehicle has them. Don't use high beams — they reflect off the fog, causing glare and reduced visibility.
- Slow down until your speed matches your ability to see.
- If needed, get off the road and find a safe place to park.

## TORNADOES

The National Weather Service issues a tornado "watch" when a severe thunderstorm may possibly produce tornado-like conditions. This only means that a tornado is possible. If a warning is issued, a tornado is imminent and all persons should seek shelter immediately. Television broadcasts, weather radios, and outdoor sirens may alert the public an active tornado is in the area.

- If you're driving during a tornado, the best course of action is to find a sturdy building to seek shelter.
- If you are unable to make it to a shelter, pull over, duck down below the windows in the vehicle, keep your seat belt fastened, and cover your head with your hands or an object such as a blanket or cushion.
- As an alternative, if you can safely exit your vehicle, take cover in a low lying ditch or ravine while covering your head with your hands or another object.
- Stay away from bridges and overpasses.

**Figure 5.10: Ice forms on bridges first due to circulating air both above and below the road surface.**



## ICE AND SNOW

- Make sure your ENTIRE vehicle is clear of snow and ice before driving, this includes windows, headlights, turn signals, and taillights.
- Beware of black ice. When the temperature drops, moisture may turn to ice on the road's surface. Often this ice is called black ice because it's hardly visible and often catches drivers by surprise. Black ice can occur anywhere, but is common on bridges and overpasses, where moisture freezes quickly due to circulating air both above and below the road surface. Because of this, bridges and overpasses may be slippery even when other road surfaces are not. (See figure 5.10)
- When starting to drive from a stopped position, keep the wheels straight ahead and accelerate gently to avoid spinning the tires.
- Decrease your speed to make up for a loss of traction.
- Do not use cruise control in icy or snowy conditions.
- Begin slowing down long before anticipating a stop at an intersection or turn. Brake only when traveling in a straight line. Stopping distances can be 10 times greater in ice and snow.
- Stay far behind the vehicle ahead so you will not need to come to a sudden stop, which can cause skidding.

### Sharing the road with snowplows

If you're driving during the winter in Iowa, chances are you'll be sharing the road with a snowplow at some point.

- **Use caution when approaching a snowplow.** Snowplows typically operate at 25-35 mph. Many drivers fail to realize this and hit them from behind.
- **Never pass on the shoulder side of a plow.** Plows will move snow to the shoulders.
- **Give them room to work.** Snowplows have large blind spots, and may kick up a cloud of snow around them, making it difficult for you to see and them to see you. It's best to stay back and be patient until you can safely pass.
- **Allow plenty of room when passing.** Plow blades may be sticking out further than the width of the plow vehicle.

### Stranded in the snow

Here are some tips if you become stranded in the snow.

- If possible, pull your vehicle onto the shoulder and remain inside to avoid getting hit by other vehicles.
- Call 911 for emergency assistance. To help guide emergency crews to your location, look for exit numbers, mileposts, crossroads, or landmarks.
- **The safest location is to remain inside your vehicle with your seat belt on.** Your vehicle is the shelter you may need to survive and allows you to be found by rescue personnel.

# 5.14 EQUIPMENT FAILURE EMERGENCIES

No matter how careful you are, at some point, you may find yourself in an emergency. If you are prepared, you may be able to prevent any serious outcomes.

## FLAT TIRE

If your tire suddenly goes flat:

- Hold the steering wheel tightly and keep the vehicle going straight.
- Slow down gradually. Take your foot off the gas pedal and use the brakes lightly.
- Do not stop on the road if at all possible. Pull off the road to a safe place.

If a front tire blows, the emergency may be more serious. A front tire blowout will jerk the car violently towards the side of the car with the flat. Be careful not to overcorrect when steering after a front tire blowout. Try to straighten the car out, then gradually move to the right shoulder of the roadway as soon as possible.

## LIGHTS

If your headlights suddenly go out:

- Try the headlight switch a few times.
- Try turning on your high beams.
- Turn on the emergency flashers, turn signals, or fog lights if the headlights do not come back on when you try the headlight switch.
- Pull off the road as soon as possible.

## ENGINE STALLS

If the engine stalls while driving:

- Keep a strong grip on the steering wheel. The steering wheel will be difficult to turn, but you can turn it.
- Pull off the roadway. The brakes will still work, but you will have to push very hard on the brake pedal.

## STUCK GAS PEDAL

If the motor does not slow down, or speeds up when you take your foot off the accelerator:

- Keep your eyes on the road.
- Quickly shift to neutral.
- Pull off the road when safe to do so.
- Turn off the engine after stopping.

## STEERING LOCK SYSTEMS

Many vehicles are equipped with steering lock systems intended to prevent theft. Never remove the key or allow passengers to touch the key while driving. If the key is removed, the steering wheel will lock. This may cause loss of control of the vehicle and could result in a crash.

## BRAKE FAILURE

If your brakes stop working:

- Pump the brake pedal several times. This will often build up enough brake pressure to allow you to stop.
- If that does not work, use the parking brake. Engage the parking brake slowly so you do not lock the rear wheels and cause a skid. Be ready to release the brake if the vehicle starts to skid.
- If that does not work, start shifting to lower gears and look for a safe place to slow to a stop. Make sure your car is off the roadway. Do not drive without brakes.

# 5.15 INVOLVEMENT IN A CRASH

Being involved in a crash, no matter how minor, can be frightening. The main goal of assessing any crash is to ensure all drivers and passengers are safe. Use the following as a guide for what to do in a crash.



## Step 1: Steer It-Clear It

If possible, ensure your vehicle is out of the path of traffic, is turned off, and no longer moving.



## Step 2: Contact law enforcement

Contact law enforcement to report the crash by calling 911. Be sure to describe as many details as possible including possible injuries and location of the crash.

It is state law to report a crash to the police involving injury or death to another person, or property damage of more than $1,500. Failure to do so within 72 hours of the incident will result in the loss of your driving privileges and further penalties.



## Step 3: provide law enforcement with insurance and contact information

Be ready to provide a law enforcement officer with:

- Vehicle insurance information
- Vehicle registration
- Driver's license



## Step 4: Report to insurance

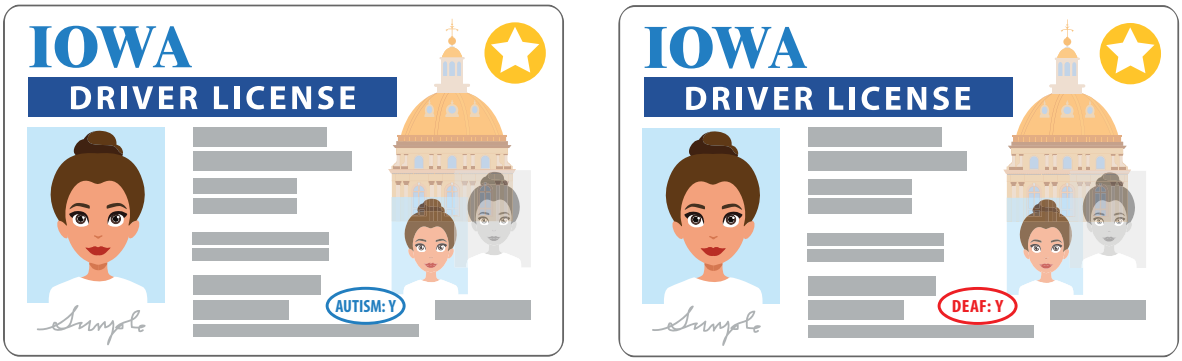
Refer to your liability coverage to assess what expenses will need to be paid and what you are eligible to receive. If you are considered at fault in a crash involving another driver, you will need to discuss what expenses you will have to cover for them as well.

# 5.16 LAW ENFORCEMENT INTERACTIONS

You may interact with law enforcement for a variety of reasons including a traffic stop. When engaging with a law enforcement officer, remain calm and follow instructions.

If you have autism and/or are deaf or hard of hearing, you may choose to have an indicator added to your license or ID. This type of indicator is printed on your license/ID and will also be visible in the database used by law enforcement to lookup a driver's information during a traffic stop. This helps the officer be better prepared to interact with you.

**Figure 5.11: Autism spectrum indicator and deaf or hard of hearing indicator**




## TRAFFIC STOP

If you see an official law enforcement vehicle signaling you to stop, carefully pull over to a clear area when it is safe. Do not stop in the travel lane. On busy streets or highways, it may be safest to pull over into a parking lot or on a less busy side street. Turn off your vehicle, keep your hands visible (recommended on the steering wheel), remain calm, and follow the officer's instructions.



# READY FOR YOUR TEST?

Take our practice knowledge test online at
[iowadot.gov/mvd/driverslicense/manuals-and-practice-tests](iowadot.gov/mvd/driverslicense/manuals-and-practice-tests)
then schedule an appointment to take the test for real.

**We look forward to seeing you safely on the road.**

## NEED THE MANUAL IN A DIFFERENT LANGUAGE?

This manual has been translated into additional languages that are available at:

[iowadot.gov/mvd/driverslicense/driverslicense/dlmanual](iowadot.gov/mvd/driverslicense/driverslicense/dlmanual)



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The information in this manual is in accordance with Iowa Code and Administrative Rules.

**www.legis.iowa.gov/law/iowaCode**

**www.legis.iowa.gov/law/administrativeRules**

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