



chapter 14

DRIVING IN CITY TRAFFIC

- 14.1 Adjusting to City Traffic
- 14.2 Following and Meeting Traffic
- 14.3 Managing Space in City Traffic
- 14.4 Special City Situations

KEY IDEA

What special driving skills will you need for city traffic?



YOU'RE THE DRIVER

Fast-moving, tightly-packed city traffic will put your driving abilities to the test. Pedestrians often act unpredictably, tail-gaters can hit you from the rear, and the doors of parked cars may open suddenly. How can you navigate safely through the city?



TRAFFIC

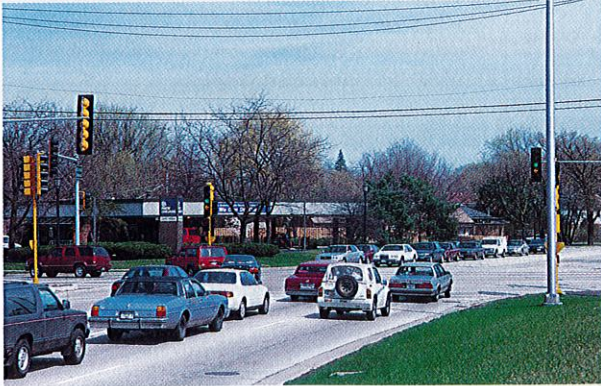
Once you are comfortable making basic maneuvers and using the IPDE Process, you will be ready to start driving in city traffic. City driving will use your best abilities.

Traffic Complexity

When you drive on a little-used rural road in good weather at a moderate speed, you probably will encounter few critical hazards. However, driving through heavy, fast-moving city traffic is different and more challenging. **Traffic density**, or the number of vehicles you meet per mile, is heavier in cities, and city hazards can quickly block your path of travel. In city driving, you may have to respond to several close hazards and possible conflicts at the same time.

As you drive, remember it takes time to use the IPDE Process. You will have to contend with many situations involving closed zones and line-of-sight restrictions. If you cannot increase the distance between your vehicle and a hazard, you must change your lane position, slow, or stop to give yourself time to solve the conflict.

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14.1 ADJUSTING TO CITY TRAFFIC



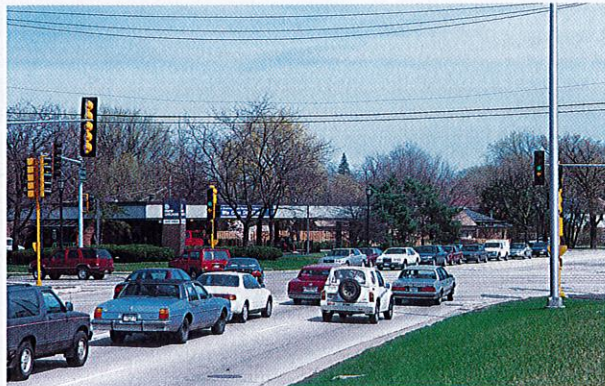
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City hazards can vary dramatically. Does the photo on the right pose more hazards?



Using the IPDE Process

In heavy city traffic, you need to focus your attention on driving to avoid conflicts and distractions. You might see other drivers using cellular phones. You also will see aggressive drivers who needlessly increase the risk in a situation by challenging other drivers. In some situations, aggressive drivers who are cut off or being followed too closely may become so angry that they try to retaliate in some way. This kind of violent behavior or road rage is a criminal offense. In these situations, be cool and drop back. Give the angry, distracted, or absent-minded driver distance. You can control these situations by avoiding them.

As you drive, focus on the IPDE Process in these ways:

- **Identify** Be vigorous in using your visual skills. Look well ahead to your target area. Check your searching ranges to make sure your front zone is open and you have time to spot things like a line-of-sight restriction.
- **Predict** Predict possible points of conflict quickly and gain valuable time to respond.
- **Decide** Always be ready to communicate or adjust your vehicle position by changing speed and using distance effectively.
- **Execute** Be ready to use your vehicle's controls to make smooth low-risk maneuvers in traffic.



drive green

Tire Monitor Remote-control key fobs are now being made that let you check the fuel and pressure on each tire before you get in your car. By monitoring your tire pressure, you can maintain good gas mileage.

review it 14.1

1. What two factors can make city driving difficult?
2. How can you best use the IPDE Process in city driving?

Critical Thinking

3. **Relate Cause and Effect** Distractions are a leading cause of crashes. How can distractions become dangerous in city driving?
4. **Predict** In some cities, rush-hour traffic can cause traffic jams and angry drivers on a regular

basis. What are some things you can do to avoid getting trapped in rush-hour traffic?

IN THE PASSENGER SEAT

Observe Traffic As a passenger, you can be a big help to the driver, especially in situations with high-density traffic. When riding in the city, record how you helped the driver follow directions, provided an early alert to important line-of-sight restrictions, and helped the driver avoid distractions. With your list, make a quick report to your class.



Lesson 14.2

FOLLOWING AND MEETING TRAFFIC

OBJECTIVES

Describe how to use the 3-second following distance rule.
 Describe how you can safely manage a tailgater.
 List the steps to take to avoid conflicts with meeting traffic.

VOCABULARY

3-second following distance
 tailgater

You need to maintain ample space between your vehicle and possible hazards in all driving environments. Managing the distance between your vehicle and the vehicle ahead is the first step.

Following Traffic

An adequate following distance lets you see further ahead, lets others see you better, gives you more time to use IPDE, and puts you in a better position to avoid a front-end collision.

3-Second Following Distance A 3-second following distance provides a safe distance from the vehicle ahead in most normal driving situations. Use the steps in **FIGURE 2** to measure your 3-second following distance.

This 3-second technique works well at all speeds for measuring a normal following distance. A 3-second following distance only protects you from colliding with the vehicle you are following. It is not the total stopping distance you need to avoid hitting a stationary object.

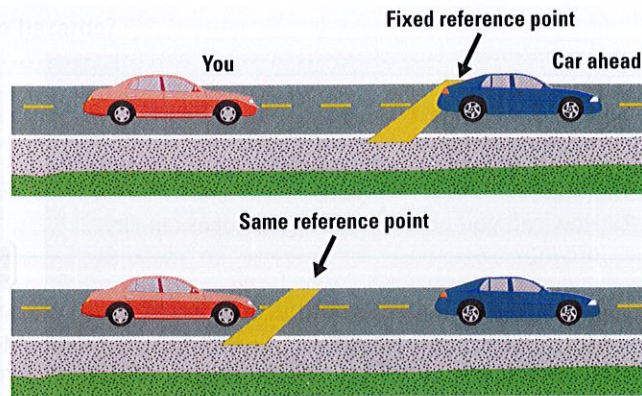
Increase your following distance to more than three seconds if driving conditions are not ideal.

2 3-SECOND FOLLOWING DISTANCE

1. Pick a fixed checkpoint on the road. Road marks or shadows make good checkpoints.

2. When the vehicle ahead of you passes your checkpoint, count: "one-thousand-one, one-thousand-two, one-thousand-three," for your 3-second count.

3. If the hood of your vehicle does not pass the fixed reference point, you have an inadequate following distance. If not, slow and increase your following distance.



Stay Alert The 3-second rule is only one technique to use when following other vehicles. Also look over, through, and around the vehicle you are following. You can even see the reflection of brake lights on wet pavement by looking under the vehicle ahead. Be alert for brake lights. Always try to anticipate what the driver ahead is likely to do in response to a changing zone condition.

Be alert in areas where sudden stops can occur, in particular at intersections where drivers may have to stop for traffic or pedestrians, in lanes next to parked vehicles, and business driveways with high-volume traffic.

Tailgaters

You are in a high-risk situation when someone **tailgates**, or follows too closely. A tailgater is a hazard because if you have to stop suddenly, the tailgating driver can hit you from the rear. Tailgating drivers often think they can save time or make other drivers go faster. Neither is true.

Managing Tailgaters If you are being tailgated, take these actions to avoid being hit from the rear.

- Increase your following distance to at least four seconds. If you must slow or stop, you can do it more slowly and give the tailgater more time to respond.
- Move slightly to the right. This helps the tailgating driver see traffic further ahead.
- Signal early for turns, stops, and lane changes. Flash your brake lights ahead of time to warn a tailgater that you plan to slow or stop. Slow sooner to make a gradual stop.
- In extreme situations, change lanes or pull out of traffic to avoid the tailgater.

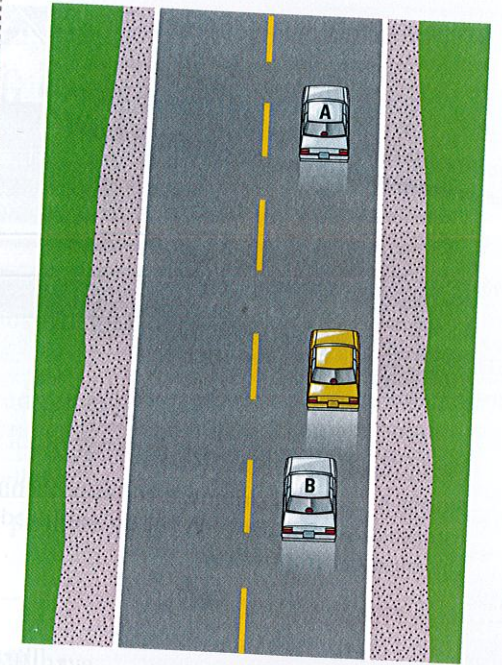


FIGURE 3 The driver of the yellow car has added tailgater protection by using a following distance longer than three seconds.



FIGURE 4 Ahead of you are two cars. The driver directly ahead has moved slightly to the right. **Infer** How does this help keep the driver safe?



You are driving a car approaching this on. **Predict** What do you predict the driver of car might do?

- Turn on or flash your headlights and blow your horn.
- If your right-front zone is open, move to the right to give the oncoming driver more room. Swerve sharply to an open space on the right if needed.

Meeting Traffic

If a driver crosses the center line, you must react instantly. Knowing how to identify and predict, and how to respond to this type of situation before it becomes dangerous may give you enough time to avoid a collision.

Avoiding Conflicts If a vehicle comes toward you, take these actions to avoid a collision.

- Slow until the other driver can return to the normal lane. You can also slow so that you meet the other driver at a point where there is room to pass.

view it 14.2

Why do you think three seconds is used as a normal following distance?

What are two examples of reference points you can use for measuring your following distance?

How do tailgaters cause potential conflict to the driver ahead?

How can you avoid a conflict with an oncoming vehicle in your lane?

Critical Thinking

Relate Cause and Effect If you cannot see enough ahead of a truck in front of you, how can you adjust your distance in seconds?

- 6. Apply Concepts** What are some examples of driving conditions in which a 3-second following distance would not be enough?

IN YOUR COMMUNITY

Research Find out how many crashes in your community were a result of rear-end collisions, and the causes. Then try to find out how many rear-end collisions and their causes happened in your state. Compare your results, and note the top three reasons for rear-end collisions in both your community and the state. Make a graph to show your results and share your findings with the class.

lesson 14.3

MANAGING SPACE IN CITY TRAFFIC

OBJECTIVES

- Describe how far ahead you should look in city traffic.
- Tell how to cover the brake.
- Explain how to select the proper lane for driving.

VOCABULARY

- cover the brake
- ride the brake
- overtake

When driving in city traffic, you must respond to a wide variety of situations. Unfamiliar streets, line-of-sight restrictions, narrow lanes, and high-density traffic all make your driving task difficult. To manage these situations, you will need to use your best skills combined with a positive, alert attitude.

How far ahead should you look while driving in the city? In addition to looking around your vehicle, look ahead one block or more. By looking far ahead into your target area to protect your path of travel, you will be able to identify zone problems in time to adjust your speed and/or position.

Approaching Traffic Signals

Look at your target area to detect traffic signals. By doing so, you will have more time to respond. If the light is red, slow and be ready to stop. If the signals on your street are synchronized to work together, you should be able to drive at or near the speed limit for several blocks as lights turn green.

FIGURE 6

By maintaining a following distance of three or more seconds, you can identify and predict possible points of conflict. You also will be able to better manage the distance between your vehicle and the truck ahead.

The truck creates a line-of-sight restriction ahead because you are tailgating.

The view of the road ahead is visible with three or more seconds of following distance.



FIGURE 7 The flashing DON'T WALK signal warns that your green signal is about to turn yellow.



FIGURE 8 You are approaching this intersection. **Decide** Could you stop before the light turns red?

If the light is green when you first see it, predict it will change soon. Watch for a DON'T WALK pedestrian signal that has started to flash, like the one in **FIGURE 7**, or a pedestrian countdown signal number below 10 seconds. These signals warn you that the light is stale, or about to change, and you will have to decide if you have time to drive through the intersection safely before the light turns yellow. Your decision will depend on your distance to the intersection and your speed.

Never speed up to get through a green light before it changes. At any speed, you will reach a point-of-no-return, or a point where you must start braking if you are going to stop before the intersection.

Covering the Brake You can maintain a normal speed if you are driving into a stable, hazard-free traffic situation. In other situations, such as the one in **FIGURE 9**, you might have to stop quickly. To get ready to stop, you need to **cover the brake**. Take your foot off the accelerator, and hold it over the brake pedal. You can use this technique whenever you sense a possible conflict. This could cut your reaction time and help you avoid a collision.

When you cover your brake, make sure not to rest your foot on the brake pedal, or **ride the brake**. When you do so, your brakes heat up and wear faster. In addition, your brake lights stay on, confusing drivers behind you. Only flash your brake lights to warn drivers behind you when you know you are going to slow or stop.



FIGURE 9 Be ready for doors open at the last second. **Apply Concepts** How can covering the brake help in a situation like this one?

Take these actions to identify and respond to the risk of parked vehicles:

- Cover your brake and move left in your lane to lane position 2.
- Look for drivers through the windows of parked vehicles.
- Be alert for the parked vehicles' brake lights, exhaust, or wheels turned out.
- Lightly tap your horn if needed.
- Be ready to stop or swerve. Swerve only if your left-front zone is open.

While driving past parked vehicles, watch for doors that might open unexpectedly. Try to drive at least one car door's width away from parked vehicles. Otherwise, reduce speed.

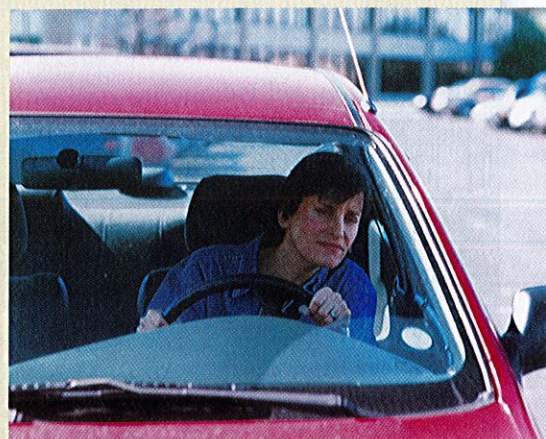
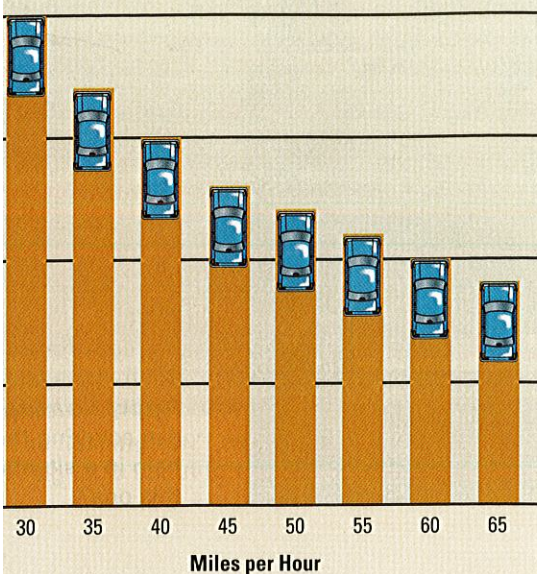
Adjusting Speed Blending into traffic is one of the most common city driving skills you will need. Use these techniques to select your best driving speed:

- Drive with the traffic flow.
- Stay within the speed limit.
- Adjust speed and position ahead of time for other drivers who might block your way.

DID YOU KNOW?

Mass Transit Before pollution and global warming were serious concerns, London was forced to deal with crippling traffic jams. In the mid-1800s, the world's first subway system was designed and built in London. Today, subways carry millions of passengers daily in cities around the world.

Travel 10 Miles at Different Speeds



Look at the graph to see how much time you save by driving 5 mph 10 miles. **Draw Conclusions** Is driving faster worth it?

Selecting the Best Lane

When driving in multilane traffic, you will use different lanes at different times. Select the lane with the smallest number of hazards.

The left lane is usually for faster traffic. But at times, traffic can be held up by drivers waiting to turn left. These left-turning drivers can be a problem when only two lanes are going in your direction. If your street has multiple lanes going your way, choose the lane where the traffic flow is smoothest.

Lane Positioning Use these techniques to position your vehicle in multi-lane city traffic:

- Increase your following distance to more than three seconds in heavy traffic.

- Adjust your speed and lane position as needed to stay out of other drivers' blind spots.
- Move to another lane if your front zone closes.
- Once you start driving in a lane, try to stay in that lane.

Overtaking and Passing Passing in a city can be dangerous. You must be alert for pedestrians, cross traffic, signals, and an endless number of line-of-sight restrictions.

At times, you might decide to **overtake**, or pass, a vehicle ahead. If you must overtake another moving vehicle on a two-lane, two-way street, make sure you can do so safely and legally. It is illegal to pass at intersections or over double-yellow center lines.

To overtake another vehicle, use the lane-changing procedure and drive past the slower-moving vehicle. Signal briefly and return to your lane when both headlights of the vehicle you have passed appear in your inside rearview mirror.

Special Traffic Lanes To help move rush-hour traffic, many cities now have special lanes for buses and carpool drivers. Drivers who travel alone must use the regular, more-crowded, slower lanes. By riding together in High-Occupancy Vehicle (HOV) lanes, people save time and fuel, reduce pollution, and reduce parking problems.

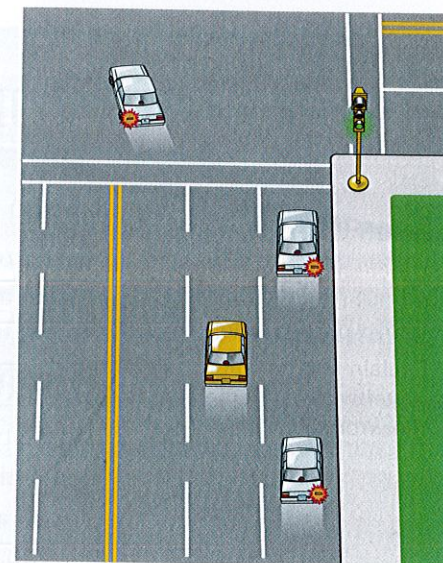


FIGURE 11 Through traffic should use the center lane to avoid slowdowns or stops.

review it 14.3

1. Why should you look ahead when driving in city traffic?
2. Explain how to cover your brake and when you should do it.
3. How do you select the best lane on a multilane street?

Critical Thinking

4. **Compare and Contrast** How much time can a driver save on a 20-mile trip by increasing speed from 30 mph in 5 mph increments?

Use the table in **FIGURE 10** to calculate the amount of time saved for each speed.

IN THE PASSENGER SEAT

Observing Traffic With a licensed, adult driver, over the period of a week, count the number of times the driver covered the brake. Also, note the situations that caused the driver to cover the brake. Report your findings to your class.



Lesson 14.4 SPECIAL CITY SITUATIONS

OBJECTIVES

Describe the procedure for making a left or right turn onto a one-way street.
Explain how to warn a driver who is driving the wrong way on a one-way street.

TERMINOLOGY

Blind intersection

You will encounter a wide range of situations in city driving. By using the IPDE Process and the Zone Control System, you will be ready to adjust to each situation ahead of time.

Driving on Two-Way Streets

Most city roadways are two-way streets with one lane going in each direction. Other streets have two or more lanes going in the same direction.

Many city intersections do not have traffic controls. You cannot be sure what other drivers will do as you approach an uncontrolled or **blind intersection**, in which your view of traffic on an intersecting road is impeded.

Some intersections have special left-turn lanes. If you turn left at an uncontrolled intersection, you must yield to oncoming traffic.

Driving on One-Way Streets

One-way streets can move a greater volume of traffic with fewer conflicts than two-way streets. Generally, one-way streets are less congested than two-way streets, so fewer conflicts occur.

Identifying One-Way Streets When you come to an unfamiliar street, first determine if it is a one-way street. Look to see if a ONE WAY sign is posted or if all moving traffic and parked vehicles point in the same direction. You might also see broken white lines that separate lanes and traffic

signs facing the same direction. (If you are driving on a street and the signs are facing the other way, you probably are going the wrong way on a one-way street.)

You are approaching an intersection. What two things can you identify this as a one-way street?



Entering One-Way Streets To make a left turn onto a one-way street, position your vehicle in the nearest left lane. Make a sharp left turn into the nearest lane going left. Signs are used to alert you when your street is about to become a one-way street.

If you plan to drive on a one-way street for a distance, try to avoid a lane that is next to parked vehicles. A parked vehicle could pull out and close your front zone. Each parked vehicle creates a line-of-sight restriction. If a center lane is available, use it to reduce possible conflicts.

When you plan to turn, position your vehicle ahead of time. Move into the right or left lane at least one block before your turn.

Leaving One-Way Streets To turn left from a one-way street, position your vehicle in the far left lane ahead of time. To turn right, position your vehicle in the far right lane ahead of time. Complete your turn by entering the nearest lane going your way.

On some one-way streets, the outside lane may be for turns only. On other one-way streets, you can turn into a multilane street from more than one lane. Road markings or overhead signs will direct you.

You will need to adjust when a one-way street turns into a two-way street. Your left lane might end. Signs or lights will warn you when a one-way street is about to change to a two-way street.

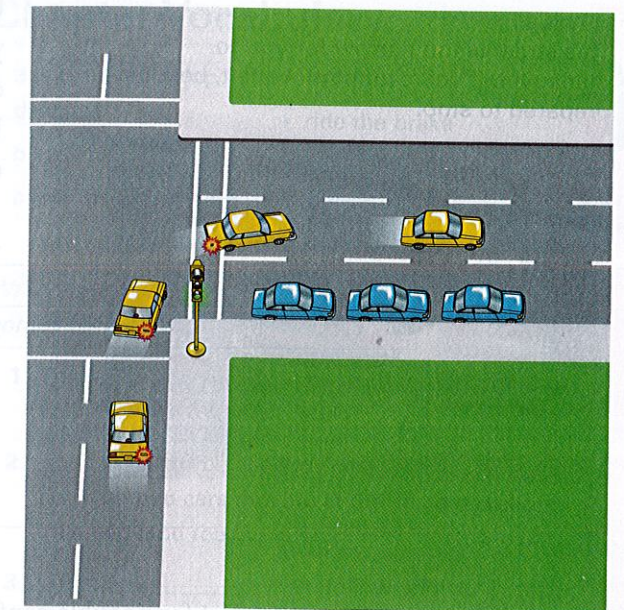


FIGURE 13 To turn right onto a one-way street, turn from the far right lane into the first available right lane.

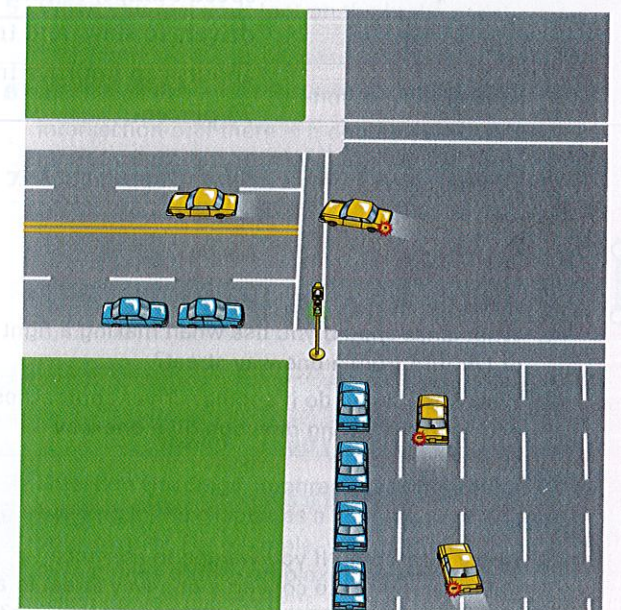


FIGURE 14 To turn left from a one-way street, turn from the far left lane to the first available lane going left.

It is too narrow for you to pass. If you cannot move left, be prepared to stop.



Unexpected Situations on Crowded Streets If you encounter a vehicle headed the wrong way on a one-way street, slow, steer right, and sound your horn. If you have time, flash your headlights to warn the other driver.

If a vehicle suddenly emerges from an alley, as shown in **FIGURE 15**, slow down and cover your brake to maintain a safe path of travel. If necessary, let traffic clear before you move ahead.

When driving on city streets, you should maintain a continuous, orderly visual search pattern. Even though drivers may have a green light, they are required to stop for pedestrians.

Angle or parallel parking is allowed on most streets. If you must drive close to parked vehicles, be alert for possible conflicts. At the first hint of movement from a vehicle or pedestrian, slow, stop, or move to another lane.

More and more communities have turned to traffic engineers to keep residential speeds lower. Roadway features used to manage traffic include speed bumps, or little humps one must drive over; special islands that force drivers to slow; and traffic circles. Research has demonstrated that roundabouts can improve traffic flow and cut crashes leading to injuries by up to 75 percent.

Review it 14.4

What lanes should you use when making a right turn from a one-way street?

What should you do if another driver approaches you from the wrong direction on a one-way street?

Thinking

Apply Concepts If you wanted to convince your community to convert a one-way street to a two-way street, what arguments might you use?

- 4. Relate Cause and Effect** If traffic speeds are too high on a one-way street in a residential community, what can traffic engineers do to slow traffic?

IN YOUR COMMUNITY

Research Identify a street in your neighborhood that is very congested. On a sheet of paper, design roadway feature(s) to improve the traffic flow. This might include one-way streets or traffic signals. Share your design with the class.

CHAPTER 14 REVIEW

Lesson Summaries

14.1 ADJUSTING TO CITY TRAFFIC

- Traffic density is one of the main factors that makes city driving hazardous. The number and proximity of vehicles and pedestrians are always a challenge for drivers.

14.2 FOLLOWING AND MEETING TRAFFIC

- The 3-second following distance provides a safe distance from the vehicle ahead of you.
- To manage a tailgating driver, you can move slightly right and increase your following distance. In extreme situations, you can pull out of traffic and let the other driver go ahead.
- Meeting an oncoming car in your lane requires immediate action. To avoid a crash, slow, signal the other driver, and—if your right-front zone is open—move right.

14.3 MANAGING SPACE IN CITY TRAFFIC

- Looking well ahead is the first step to use in managing space in city traffic.
- If you approach a high-risk driving situation, cover your brake to cut your reaction time.
- To help keep traffic moving, you need to select the correct lane for driving.

14.4 SPECIAL CITY SITUATIONS

- To identify one-way streets, look for **ONE WAY** signs or parked vehicles pointing in the same direction.
- To warn another driver who is driving the wrong way on a one-way street, slow, move as far right as you can, and sound your horn.

Chapter Vocabulary

- 3-second following distance
- blind intersection
- cover the brake
- overtake
- ride the brake
- tailgate
- traffic density

Write the word or phrase from the list above that completes the sentence correctly.

- The term _____ can be used to describe the volume of traffic on a road.
- _____ can be used to measure the space between two cars moving in the same direction on a two-lane road.
- When you _____, you follow another car too closely.
- When drivers are not sure what is going to happen next, they can _____ to cut their reaction time.
- When you rest your foot on the brake pedal, you _____.
- It is illegal to _____ another vehicle in an intersection or if there is a double yellow line.
- A tall hedge or wall at a corner could create a _____.



STUDY TIP

Question Headings Rephrase each green heading in the chapter as a question to ask your partner. For example, you might ask, "What does traffic complexity mean?" and "How do you use the IPDE Process in city driving?" for lesson 1. Take turns asking and answering questions with a partner.