Sharing the Road with Motorcycles and Vehicles

Today’s motorcycle riders are friends, relatives and neighbors. The motorcyclist has the same rights and responsibilities on the roadway as drivers of other vehicles. Motorists should recognize this and not attempt to crowd motorcycles or take the right-of-way from motorcyclists.

Approximately 4,000 motorcycle crashes occur on Pennsylvania roads each year. Half of these involved a crash between a motorcycle and another type of vehicle. And almost two-thirds of these crashes are caused not by the motorcyclist but by the driver of the other vehicle.

Look out for motorcyclists Be aware that motorcycles are small and may be difficult to see. Motorcycles have a much smaller profile than other vehicles, which can make it more difficult to judge the speed and distance of an approaching motorcycle.

Anticipate a motorcyclist’s maneuver. Road conditions, which are minor annoyances to vehicle drivers, pose major hazards to motorcyclists.

Allow more following distance Leave three or four seconds when following a motorcycle, so the motorcyclist has enough time to maneuver or stop in an emergency. In dry conditions, motorcycles can stop more quickly than a vehicle.

Signal your intentions Before changing lanes or merging with traffic, signal your intentions allowing the motorcyclist to anticipate traffic flow and find a safe lane position.

Don’t be fooled by a flashing turn signal on a motorcycle – motorcycle signals usually are not self canceling and riders sometimes forget to turn them off. Wait to be sure the motorcycle is going to turn before you proceed.

Respect a motorcycle A motorcycle is a full-size vehicle with the same privileges as any vehicle on the roadway. Allow a motorcyclist a full lane width. Although it may seem as though there is enough room in the traffic lane for a vehicle and a motorcycle, remember the motorcycle needs room to maneuver safely. Do not share the lane.

CRASHES ARE MOST LIKELY TO OCCUR IN THESE HIGH-RISK SITUATIONS:

Left turns
Approximately one-half of all motorcycle crashes involve another motor vehicle. Nearly 40 percent were caused by the other vehicle turning left in front of the motorcyclist.

Vehicle’s blind spot
Remember, motorcyclists are often hidden in a vehicle’s blind spot or missed in a quick look due to their smaller size. Always make a visual check for motorcycles by checking mirrors and blind spots before entering or leaving a lane of traffic and at intersections.

Hazardous road conditions
Motorcyclists may change speed or adjust their position within a lane suddenly in reaction to road and traffic conditions such as potholes, gravel, wet or slippery surfaces, pavement seams, railroad crossings and grooved pavement.

Weather conditions
When the road surface is wet or icy, motorcyclists’ braking and handling abilities are impaired.

Strong winds
A strong gust of wind can move a motorcycle across an entire lane if the rider is not prepared for it. Wind gusts from large trucks in the other lane can be a real hazard.

Large vehicles
A large vehicle, such as a van or truck, can block a motorcycle from a driver’s view. The motorcyclist may seem to suddenly appear from nowhere.

Sharing the roadway is a good indication motorists and motorcycles both recognize the importance of cooperation. By curbing aggressive behavior and operating vehicles in accordance with common sense, courtesy and the law, motorists and motorcyclists can ride together on the road.

Information taken from NHTSA’s Share the Road Program.
CHAPTER 2: SIGNALS, SIGNS AND PAVEMENT MARKINGS

This chapter provides the information you need to know about Pennsylvania roadways. It covers:

• Signals  • Signs  • Pavement Markings

SIGNALS

Traffic signals are installed at intersections to control the movement of vehicles and pedestrians. Traffic signals are arranged in either vertical lines or horizontal lines. When they are arranged vertically, red is always on top and green on the bottom. When they are arranged horizontally, red is always on the left and green on the right.

RED, YELLOW AND GREEN TRAFFIC LIGHTS AND ARROWS

When there is a STEADY RED LIGHT, you must stop before crossing the marked stop line or crosswalk. If you do not see any lines, stop before entering the intersection. Wait for a green light before you start.

You may turn right while the light is red, unless a NO TURN ON RED sign is posted at the intersection. You must first stop, check for and yield to pedestrians and other traffic.

You may also turn left after you stop at a red light, if you are in the left lane and are turning left from a one-way street onto another one-way street, unless a sign tells you not to turn. You must first stop and yield to pedestrians and other traffic.

A STEADY YELLOW LIGHT tells you a steady red light will soon appear. If you are driving toward an intersection and a yellow light appears, slow down and prepare to stop. If you are within the intersection or cannot stop safely before entering the intersection, continue through carefully.

A STEADY GREEN LIGHT means you may drive through the intersection, if the road is clear. You may also turn right or left unless a sign tells you not to; however, when turning, you must yield to other vehicles and pedestrians within the intersection.

A GREEN ARROW means you may turn the way the arrow points. When you turn during the green arrow phase, your turn is “protected” because oncoming traffic is stopped by a red light. If the green arrow turns into a green light, you may still turn in that direction, but first yield to pedestrians and oncoming traffic.

A YELLOW ARROW means the movement permitted by the green arrow is about to end. You should slow down and prepare to stop completely before entering the intersection. If you are within the intersection or cannot stop safely before entering the intersection, carefully turn in the direction the arrow is pointing.

Although not common in Pennsylvania, a RED ARROW is used in other states. It means you may not turn in the direction the arrow points.
CHAPTER 2 - SIGNALS, SIGNS AND PAVEMENT MARKINGS

PA DRIVER’S MANUAL

FLASHING SIGNALS
A flashing red light has the same meaning as a STOP sign. You must come to a complete stop. Then, look both ways, and proceed only after the intersection is clear.

A flashing yellow light means CAUTION. Slow down, look and proceed with care.

NON-FUNCTIONING TRAFFIC LIGHTS
A non-functioning traffic signal should be treated as though it were a four-way STOP sign.

RAMP-METERING SIGNALS
Some highway entrance ramps have traffic signals at the end of the ramp that alternate between steady green and steady red. Ramp metering signals are used to control the flow of traffic onto very congested highways and usually operate during peak rush hours. You must wait for the green signal before you enter the highway. On single-lane ramps, only one (1) car may enter the highway each time the light turns green. For multi-lane on ramps, there will be a ramp meter for each lane. The green light does not protect your entrance onto the highway — you must still look for a safe gap in traffic to enter the highway.

LANE USE CONTROL SIGNALS
Special signals may also be placed directly over lanes to control traffic. These are commonly used at toll booths, on bridges, tunnels and on multi-lane roads in cities where the direction of travel for a particular lane changes to ease the flow of traffic into or out of the city during peak rush hour. The following signals show how specific lanes of a street or highway should be used:

A steady downward green arrow over a traffic lane means you may use the lane.

A steady yellow “X” over a traffic lane means you must change lanes because the direction of travel for that lane is about to be reversed. Get ready to leave the lane safely.

A steady red “X” over a lane means you are not allowed to use the traffic lane.

A white, steady, one-way left-turn arrow over a lane means you may only turn left, if you are in that lane.

A white, steady, two-way left-turn arrow over a lane means you may only turn left, if you are in that lane, but the lane is shared by left-turning drivers approaching from the opposite direction.
PEDESTRIAN SIGNALS

Pedestrians must obey traffic and pedestrian signals. The pedestrian signals you must obey are the WALK and DON’T WALK lights or the lighted picture of a walking person (meaning walk) and an upraised hand (meaning don’t walk). If there are no pedestrian signals at the intersection, pedestrians must obey the red, yellow and green traffic lights.

Sometimes pedestrians are not aware of their responsibilities at traffic and pedestrian signals. Be alert for pedestrians, who may not obey the signal. Always yield to pedestrians.

Blind Pedestrians

When driving near a blind pedestrian who is carrying a white cane or walking with a guide dog, you must slow down, always yield the right-of-way and then proceed with caution. Be prepared to stop your vehicle in order to prevent injury or danger to the pedestrian.

SCHOOL ZONE SIGNALS

School zone signals are flashing yellow signals placed on the school zone speed limit signs. You must travel no faster than 15 mph when the yellow signals are flashing or during the time periods indicated on the sign. Exceeding the speed limit in a school zone will result in three (3) points on your driving record, and you will also be fined.

RAILROAD CROSSING SIGNALS

Drivers are alerted when approaching a railroad crossing by the railroad crossing sign. Railroad crossings should be approached with caution at all times. You should always look both ways and listen for any approaching trains or signals before proceeding across the railroad tracks.

You are required to stop at all railroad crossings when there is a signal of an approaching train. These signals include flashing red lights, a lowered crossing gate, a flagger signaling or a train’s audible signal of warning. Do not move forward or attempt to go around any gate or ignore any signal of an approaching train. If there are no signals at the railroad crossing, you should slow down and prepare to stop, if you see or hear a train approaching.

Proceed with caution only after all signals are completed and then only when there is evidence no trains are approaching the crossing.

You should stop if a train is approaching and has sounded its audible signal or is plainly visible and in hazardous proximity to the crossing.

Do not stop your vehicle on a railroad track, regardless of whether a train appears to be coming. If traffic is backed up because of a traffic signal, stop sign or for any other reason, make sure you stop your vehicle in a location where it will be entirely clear of any railroad tracks.

Refer to Chapter 3 for more information about how to safely cross a highway-railroad intersection.
SIGNS

Signs are divided into three (3) basic categories: Regulatory, Warning and Guide signs. Most signs within each category have a special shape and color.

REGULATORY SIGNS

Regulatory signs tell you what you must do, or must not do, according to the law. The regulations posted on these signs advise you about speed limits, the direction of traffic, turning restrictions, parking restrictions, etc. If you do not obey the messages on regulatory signs, you could be fined and receive points on your driving record because you are breaking the law. You also risk your safety and the safety of others by disobeying the messages on regulatory signs – for example, failing to stop at a stop sign, passing another car where it is not safe to pass, driving faster than the posted speed limit or driving the wrong way on a one-way street.

Usually, regulatory signs are black and white vertical rectangles or squares, like SPEED LIMIT signs. Some regulatory signs are black, white and red, like the NO LEFT TURN sign with a circle and slash. Other regulatory signs are red and white, like STOP, YIELD, DO NOT ENTER and WRONG WAY signs.

The STOP sign is the only octagon-shaped (8-sided) sign you see on the highway. At an intersection with a STOP sign, you must stop completely, check for pedestrians and cross traffic to clear the intersection before you go again. Slowing down without coming to a full stop is illegal.

When you see a crosswalk or a stop line, stop before the front of your vehicle reaches the first painted line. If you cannot see traffic, yield to any pedestrians and then carefully pull forward past the line until you can see clearly. Check for traffic and pedestrians and then go ahead when the intersection is clear.

This sign is also used in conjunction with stop signs. This sign allows motorists to make the right turn without stopping.

A FOUR-WAY STOP sign means there are four stop signs at this intersection. Traffic from all four directions must stop. The first vehicle to reach the intersection should move forward first. If two vehicles reach the intersection at the same time, the driver on the left yields to the driver on the right. If facing one another both can proceed with caution, watching for possible turns.

YIELD signs are triangular (3-sided) in shape. When you see this sign, you must slow down and check for traffic and give the right-of-way to pedestrians and approaching cross traffic. You stop only when it is necessary. Proceed when you can do so safely without interfering with normal traffic flow. Remember, you must have a sufficient gap in traffic before you can continue on at either STOP or YIELD sign locations.

This sign is used in conjunction with a yield sign at a one-lane bridge or underpass location to alert motorists the one-lane roadway requires them to yield the right-of-way to opposing traffic.

RAILROAD CROSSBUCK SIGN. This sign is placed at a railroad crossing where the tracks cross the roadway. You should treat the crossbuck sign as a YIELD sign; slow down and prepare to stop, if you see or hear a train approaching. Refer to Chapter 3 for more information about railroad crossing safety.
The **DO NOT ENTER** and **WRONG WAY** signs work as a team. The **DO NOT ENTER** sign is put at the beginning of one-way streets and ramps. When you see this sign, do not drive onto that street or ramp in the direction you are heading.

**WRONG WAY** signs are placed farther down the one-way street or ramp. They are placed there to catch your attention, if you accidentally turn onto the street or ramp.

The **ONE WAY** sign means traffic is allowed to move only in the direction the sign is pointing. If you turn onto a one-way street traveling in the opposite direction, you are likely to get into a head-on collision.

**DIVIDED HIGHWAY**

This sign means the road you are on intersects with a divided highway. The divided highway is really two (2), one-way roadways that are separated by a median or a guide rail. At the first roadway, you can only turn right, and at the second roadway, you can only turn left.

**NO TRUCKS, NO BICYCLES and NO PEDESTRIAN CROSSING**

Operators of trucks, bicycles and pedestrians may not use roadways where these signs are posted.

The following signs are located where certain actions are prohibited at any or all times:

**NO U-TURN**

This sign prohibits U-turns. Do not make a complete turn to go in the opposite direction.

**NO RIGHT TURN**

This sign indicates right turns are prohibited. Do not make a right turn at this intersection.

**NO LEFT TURN**

This sign indicates left turns are prohibited. Do not make a left turn at this intersection.

**NO PARKING**

You may not park a vehicle at locations where this sign is posted.

**DO NOT PASS**

This sign may be placed in areas where you may not pass any vehicles going in the same direction. It is often accompanied by the yellow pennant-shaped sign that says **NO PASSING ZONE** (Refer to “Warning Signs”).

The following **LANE USE CONTROL SIGNS (Directional)** are placed at or near intersections above the traffic lane they control to show what maneuver(s) are permitted from that lane.

**CENTER LANE LEFT TURN ONLY**

This sign indicates where a lane is reserved for the exclusive use of left-turning vehicles in either direction and is not to be used for through traffic or passing.
### LANE USE CONTROL SIGNS (continued)

<table>
<thead>
<tr>
<th>TURN TO LEFT OR RIGHT</th>
<th>STRAIGHT OR TURN RIGHT</th>
<th>TURN RIGHT ONLY</th>
<th>TURN LEFT ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>If you are in a lane controlled by signs like these, you may travel in either direction the arrows point.</strong></td>
<td><strong>If you are in a lane controlled by a sign with a turn arrow and the word “ONLY,” when you reach the intersection, you must make the turn. You may travel only in the direction the arrow points, even if you are in the turn-only lane in error.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KEEP RIGHT</th>
<th>RIGHT TURN SIGNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>These signs direct drivers to keep to the right of the traffic island or divider.</strong></td>
<td><strong>This sign is posted close to a traffic signal to indicate that the signal controls right turn movements.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPEED LIMIT</th>
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<tbody>
<tr>
<td><strong>A SPEED LIMIT sign indicates the maximum legal speed under ideal conditions for the stretch of highway where it is posted. Your safety may depend upon driving slower than the posted speed under poor conditions.</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>KEEP RIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>You may not turn during the red light cycle at an intersection where one of these signs is posted. You must wait for the signal to turn green.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEFT TURN YIELD ON GREEN</th>
<th>OPPOSING TRAFFIC HAS EXTENDED GREEN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>This sign indicates a left turn is permitted, but you must yield to oncoming traffic. It is commonly placed at intersections, near the left-turn traffic signal, to remind drivers left turns are not protected when the circular green signal comes on.</strong></td>
<td><strong>This sign is posted where opposing traffic may continue to move after your signal has turned red.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESERVED PARKING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Although this sign is not black and white, it is a regulatory sign. It marks areas where parking is reserved for disabled persons or severely disabled veterans. Vehicles parked in these spaces must display authorized registration plates or parking placards. Unauthorized vehicles parked in these spaces are subject to a fine and towing costs.</strong></td>
</tr>
</tbody>
</table>
WARNING SIGNS

Warning signs tell you about conditions on or near the road ahead. They warn you about possible hazards or changes in roadway conditions. They are posted before the condition, so you have time to see what is ahead, decide how you should respond and slow down or change your travel path, if necessary. Warning signs are usually diamond shaped with black symbols or words on a yellow background.

NO PASSING ZONE
This is the only pennant-shaped warning sign. This sign marks the beginning of a no passing zone and is placed on the left side of the road facing the driver.

CHEVRON SIGNS
There is a sharp change in the direction of the road, such as a curve to the left or right. The road bends in the direction the chevron points. When used in a curve, there will be an advanced curve warning sign, and there may be several chevron signs placed throughout the curve.

LEFT CURVE
The road curves ahead to the left. You need to slow down, stay in the center of your lane and prepare to navigate through the left-bending curve.

RIGHT CURVE
The road curves ahead to the right. You need to slow down and position your vehicle slightly to the right of the center of your lane, as you drive through the right-bending curve.

SHARP LEFT TURN
The road ahead turns sharply to the left. You need to slow down substantially, stay in the center of your lane and prepare to navigate through the sharp left turn. Some sharp turn signs have an advisory speed located on the sign or posted below it.

SHARP RIGHT TURN
The road ahead turns sharply to the right. You need to slow down substantially, position your vehicle slightly to the right of the center of your lane and prepare to navigate through the sharp right turn. Some sharp turn signs have an advisory speed located on the sign or posted below it.

SET OF CURVES
The road ahead curves first in one direction and then back in the other direction (a set of two (2) curves). Slow down and prepare to navigate through the set of curves.

RIGHT AND LEFT SHARP TURNS
The road ahead turns sharply first in one direction and then back in the other direction. Slow down substantially and prepare to navigate through the set of turns.
WINDING ROAD (SERIES OF CURVES)
This sign indicates there are three (3) or more curves in a row on the road ahead.

ONE DIRECTION LARGE ARROW
The road ahead changes direction at an extreme angle. Before you reach such an extreme curve, slow down as much as you would to make a turn at an intersection.

ROAD ENTERING CURVE
The main road curves to the left with a side road entering from the right. Approach the intersection with extra caution. A driver preparing to enter the main road may not be able to see you approaching from around the curve and may pull out in front of you, leaving you little room to avoid a crash, if you are traveling too fast.

TRUCK ROLLOVER
This sign identifies curves where trucks traveling at excessive speeds have a potential to rollover.

ADVISORY SPEED SIGNS
This sign may be used with any diamond-shaped warning sign. The highest speed you should travel around a sharp left curve ahead is 25 mph.

MERGING TRAFFIC
This sign is placed on a major roadway to tell you traffic may be merging into your lane from another roadway or a ramp. In this example, the traffic will be entering your lane from the right. Entering traffic must yield to traffic already on the major roadway.

ADDED LANE
This sign is placed in advance of a point where two roadways meet. It means merging is not necessary because the entering traffic uses a new lane that has been added to the roadway.

WEAVE AREA
This sign is used to warn that you will be merging with another roadway as some traffic is exiting and crossing your path.
TWO-WAY TRAFFIC AHEAD
The one-way street or roadway ends ahead. You will then be traveling on a road with two (2) lanes of traffic moving in opposite directions. Stay in your lane to the right of the centerline. This sign may also be placed at intervals along the two-way roadway.

LANE ENDS
These signs tell you one (1) lane on a multi-lane roadway will end ahead. In these examples, the traffic in the right lane must merge left.

INTERSECTION SIGNS
The signs below show types of intersections. By showing you in advance how the roads join each other, the signs let you know when the road you are traveling on does not continue straight through the intersection. The signs also warn you about possible problems with the movements of other vehicles. Approach all of these intersection types with extra caution by searching ahead and preparing to slow down, if necessary.

TWO DIRECTION LARGE ARROW
This sign is placed at the far side of a T-intersection to tell you that you can only go left or right. The road you are on does not continue straight through at the intersection.

NARROW BRIDGE OR UNDERPASS AHEAD
Each lane on the bridge or underpass becomes narrower, and there generally is no shoulder. You need to slow down and make sure you stay in your lane. If a driver approaching from the opposite direction has a wide vehicle or is taking up part of your lane, wait until he or she clears the area.

SLIPPERY WHEN WET
Especially slippery conditions exist when wet. In wet weather, reduce your speed and increase your following distance. Do not accelerate or brake quickly. Make turns at a very slow speed.
DEER CROSSING
This sign is posted in areas where deer frequently cross and crashes with deer have occurred.

LOW CLEARANCE
This sign may be placed on an underpass, or at the entrance to a tunnel or parking garage. Do not enter if your vehicle is taller than the height listed on the sign.

SHOULDER SIGNS
These signs are placed in advance of locations where the shoulder is lower than the road or the shoulder is soft (not paved). The LOW SHOULDER sign is used where the shoulder is as much as three (3) inches below the level of the road. The SHOULDER DROP OFF sign is used for even more severe drop-off situations.

If you stray off of the roadway and one (1) wheel drops off onto a low shoulder or a soft shoulder, do not slam on the brakes or steer sharply to try to get back onto the roadway—you can easily lose control of your vehicle! Refer to Chapter 3 for information about how to safely recover from drifting off of the pavement.

HILL/DOWNGRADE
There is a steep hill ahead. Slow down and be ready to shift to a lower gear to control your speed and to save wear and tear on your brakes.

TRAFFIC SIGNAL AHEAD
A traffic signal is present at the intersection ahead. You may not be able to see it because of a curve or hill. If the light is red (or if the light has just turned green), a line of vehicles may be stopped ahead. When you see this sign, slow down and prepare to stop, if necessary.

STOP SIGN AHEAD
A STOP sign is present at the intersection ahead. You may not be able to see it because of a curve, hill or something else blocking your view. There also may be a line of vehicles stopped ahead at the STOP sign you cannot see. When you see this sign, slow down in preparation to stop.

BICYCLE CROSSING AHEAD
Bicyclists may be crossing your path ahead. Be prepared to slow down, if necessary. This sign may have either a yellow background (as shown) or a fluorescent yellow-green background.

RAILROAD CROSSING AHEAD
You are approaching a railroad crossing. When you see this sign, begin looking and listening for a train. This sign is placed far enough in advance to allow you to stop before you reach the tracks, if necessary. Refer to Chapter 3 for more information about railroad crossing safety.
ADVANCED INTERSECTION/RAILROAD CROSSING SIGN
The intersecting road has a railroad crossing within a very short distance from the intersection. If you are planning to turn onto the intersecting road and if a train is approaching, be prepared to stop.

BICYCLE/MOTOR VEHICLE SHARE THE ROAD
Used at roadway pinch points (no shoulder, narrow lanes, etc.) to warn you, as a motorist, to provide adequate space for bicyclists to share the roadway.

PEDESTRIAN CROSSING
Used at a marked crosswalk or in advance of locations where pedestrians may be crossing your path. Be prepared to slow down or stop, if necessary. This sign may have either a yellow background (as shown) or a fluorescent yellow-green background.

SCHOOL
This is the only pentagon-shaped sign used on the roadway. It means you are approaching a school zone. If the sign is accompanied by a downward-pointing arrow, it means you are at the school zone crosswalk. You should slow down, watch for children crossing the road and stop, if necessary. This sign may have either a yellow background (as shown) or a fluorescent yellow-green background.

HORSE-DRAWN VEHICLE
This sign is posted in areas where slow moving, horse-drawn vehicles cross or share the roadway with motorized vehicles.

OBJECTS ADJACENT TO THE ROADWAY
Objects close to the edge of the road sometimes need a marker to warn drivers of the potential danger. These include underpass supports, ends of bridges, guiderrails and other structures. In some cases, there may not be a physical object involved, but rather a roadside condition such as a drop-off or an abrupt change in the roadway alignment. Such roadside objects and conditions are indicated by the following markers, where the stripes are angled down in the direction you need to move to avoid the hazard:
WORK ZONE SIGNS (WORK AREA AND CONSTRUCTION ZONE SIGNS)

Work Zone Signs are normally diamond shaped, like warning signs, but they are orange with black lettering instead of yellow with black lettering. These signs identify maintenance, construction or utility areas where workers or equipment may be on or near the roadway. Stay alert and slow down when you see these signs.

Turn on your headlights when traveling through a work zone, no matter what time of day. This is the law for all posted work zones, not just for active ones. Using your headlights makes your vehicle more visible to other traffic as well as to highway workers. If you are pulled over by police for a traffic violation in a work zone and your vehicle's headlights are not turned on, you will be fined an additional $25.

These WORK ZONE signs are placed at the beginning and end of an active work zone. An active work zone is the portion of a work zone where construction, maintenance or utility workers are on the roadway, or on the shoulder of the highway next to an open travel lane.

ROAD WORK AHEAD
This sign informs you there is road work ahead and also cautions you to slow down.

WORKERS AHEAD
Workers may be on or are very close to the roadway, so take special care when traveling through the area.

LANE CLOSED AHEAD
This sign tells you a particular lane will be closed at a specified distance ahead.

FLAGGER AHEAD (ROAD CONSTRUCTION AHEAD)
The sign to the left shows a flagger is controlling traffic ahead. As shown below, flaggers use STOP and SLOW paddles or a red flag to signal you to stop or slow down. Pay special attention to flaggers when approaching and traveling through a work zone.

DID YOU KNOW?
Highway workers have forms to report motorists who speed or drive unsafely in work zones to the police, who may then issue a ticket, resulting in fines and points.
ELECTRIC ARROW PANELS
Large electronic flashing arrow panels (move/merge right or left) placed in the roadway or mounted on vehicles advise approaching motorists of lane closures. Begin your merge well in advance of the sign. An arrow panel displaying either of the messages shown in the figure to the far right (caution) indicates there is a work area ahead next to the travel lane. Drive with extra caution.

CHANNELING DEVICES
Barrels, tubes, cones and vertical panels are all devices used in work zones to guide you through changing traffic patterns and keep you away from hazards associated with road work.

GUIDE SIGNS
Guide signs provide information about intersecting roads, help direct you to cities and towns, and show points of interest along the highway. Guide signs also help you find hospitals, service stations, restaurants and motels. Usually these signs are horizontal rectangles.

HIGHWAY/EXPRESSWAY GUIDE SIGNS
The following three signs are examples of highway and expressway guide signs. They are green with white letters. Most highway and expressway signs are posted the same way. For example, there is usually one advance sign which is followed by another advance sign. The third sign then is posted at the exit. Several signs are necessary because the high speed and heavy traffic on highways can cause drivers to miss seeing a single sign. Also, motorists may need to make one or more lane changes to exit.

EXIT NUMBERS
Exit numbers have been revised to correspond with the mile markers similar to states to the west and south of Pennsylvania. This change allows motorists to quickly calculate distances between exits, e.g., the distance between Exit 95 and Exit 20 is 75 miles.

If a yellow panel with the message EXIT ONLY is on a highway sign, the lane below the sign will not continue through the interchange; instead, the lane will go off of the road to form a ramp. If you are in a lane posted with an EXIT ONLY, you may change lanes, or you must exit the highway if you stay in this lane.
HERE ARE SOME TIPS TO LET YOU KNOW WHICH SIDE OF THE HIGHWAY YOU WILL EXIT:

- The small green **EXIT** number sign on top of the green rectangular sign will be on the **left** side of the sign, if the exit is on the **left** side of the highway.
- The small green **EXIT** number sign on top of the green rectangular sign will be on the **right** side of the sign, if the exit is on the **right** side of the highway.
- If the sign has white arrows, the arrow will point in the direction of the exit.

### INTERSTATE NUMBERING SYSTEM

The red, white and blue shield sign indicates a highway is an interstate. These interstates are specially numbered to help motorists find their way through unfamiliar areas. A code is used to show if the route travels mainly east and west or north and south, and to show if the route is in the eastern, middle or western United States.

**Decoding the Interstate Numbering System.** The numbers on the interstate shield can be a great navigational aid when you understand how they are developed. They generally follow this pattern:

- **One** or **two-digit**, **even**-numbered interstates are generally east-west routes. Nationally, the numbers increase from I-10 in the south to I-94 in the north. In Pennsylvania, I-76 is in the southern part of the state, and I-84 and I-80 are in the northern part.
- **One** or **two-digit**, **odd**-numbered interstates are generally north-south routes. Numbers increase from the west coast I-5 to the east coast I-95. In Pennsylvania, I-79 is in the western part of the state, and I-95 is in the eastern part.
- Three-digit numbered interstate highways connect to other major highways. If the first of the three (3) digits is an **even** number, the highway usually connects to interstate highways at both ends, such as I-276 in Philadelphia. Many times such routes are known as “loops” or “beltways.”
- When the first of the three (3) digits is an **odd** number, the highway is usually a “spur” route connecting with another interstate at only one (1) end, sometimes going into a city center such as I-180 in Williamsport.

### MILE MARKERS

Mile markers are used on some highways to indicate the number of miles from the point where the traffic route entered the state or from its beginning, if it does not extend to the state borders. The numbers start at zero in the western part of the state for east-west roadways and in the southern part of the state for north-south roadways. The numbers increase as you travel east or north and decrease as you travel west or south. For example, when you enter Pennsylvania from the west on Interstate I-80, the mile markers begin at Mile 1 and increase as you travel east. Knowing how to read mile markers can help you to know exactly where you are and give an approximate location, if you have to call for roadside assistance.
ROUTE MARKERS
The following signs indicate the route on which you are traveling.

- **22** The route marker shows you the road is **U.S. Traffic Route 22**.
- **39** The keystone marker shows you the road is **Pennsylvania Traffic Route 39**.
- **JCT** The **junction plate** on this route marker shows you are approaching the intersection of U.S. Traffic Route 22.
- **WEST** The **direction plate** on this route marker shows you are traveling west on U.S. Traffic Route 22.
- **WEST** The **supplemental arrow** on this route marker assembly means you are approaching a right turn to continue on U.S. Traffic Route 22 West.
- **TO** The route marker sign and “TO” trailblazer sign and the supplemental arrow means if you want to gain access to U.S. Traffic Route 22, you must continue ahead.

SERVICE SIGNS
The following signs are examples of service signs. The signs are square or rectangular, are blue with white letters or symbols, and show the location of various services located at the next exit.

- **HOSPITAL**
- **TELEPHONE**
- **FOOD**
- **GAS**
- **DIESEL**
- **LODGING**

TOURIST-ORIENTED DIRECTIONAL SIGNS
These signs are square or rectangular and may be blue or brown with white lettering. The signs direct motorists to tourist attractions such as museums, historical landmarks, or state or national parks.

- **Susquehanna Indian Museum**
- **GETTYSBURG NATIONAL MILITARY PARK 2 MILES**
### PAVEMENT MARKINGS

Most roads have permanent markings to show the center of the road, travel lanes or road edges. The markings that show the center of the road are solid or broken lines. These pavement markings also indicate special lane use. Yellow lines divide traffic traveling in opposite directions. Yellow lines are used to mark the center of two-lane roads, and to mark the left edge of divided highways, one-way streets and ramps. Solid white lines divide lanes of traffic traveling in the same direction. Solid white lines are also used to mark the right edge of the road.

As a general rule, broken traffic lines can be crossed and solid lines cannot, except when making a turn. Some examples of different pavement markings and their meanings follow:

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>A single, broken yellow centerline shows the center of a two-way, two-lane road. Passing is permitted on either side, if safe conditions exist. When passing, you must use the lane belonging to oncoming traffic.</td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>A double, solid yellow centerline shows the center of a two-way road. Even if it is not marked with a NO PASSING sign, passing by traffic traveling in either direction is not allowed on roads marked in this manner.</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>The combination of a solid yellow and a broken yellow centerline also shows the center of a two-way roadway. You may pass if the broken line is on your side of the road and safe conditions exist, but you may not pass when a solid yellow line is on your side of the road.</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>Marking patterns like these may be found on many three-lane or five-lane highways. The outside, solid yellow centerline means you cannot use the center lane for passing. The inside, broken yellow and solid yellow centerlines show vehicles traveling in either direction may use the center lane only to make left turns. Refer to Chapter 3 for more information about using center turn lanes safely.</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>Multi-lane highways without medians (center dividers) are often marked as shown. Broken white lines show which lanes can be used by vehicles traveling the same way. You may cross the broken white lines to pass, (be sure the passing lane is clear) but you may not cross the double yellow centerlines to pass. Traffic is traveling in the opposite direction in the lane to the left of the yellow centerline.</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>This pattern is used on most limited access highways with medians (center dividers). The right edge of the road is marked with a solid white line. The left edge of each side is marked by a solid yellow line. The traffic lanes for each side are marked by broken white lines, which may be crossed.</td>
</tr>
</tbody>
</table>

Pavement markings also include words painted on the pavement and arrows that supplement messages posted on regulatory and warning signs. Examples include the words **STOP AHEAD** before an intersection with a **STOP** sign, **YIELD** or white triangles painted across the lane to indicate you must yield to approaching traffic, **SCHOOL** before a school zone, **R X R** before a railroad crossing, **BIKE LANE** for a lane reserved for bicyclists, **ONLY** with a left or right arrow to indicate the lane is reserved for turns only and large white arrows to indicate the direction of travel on one-way streets and highway off-ramps.
CHAPTER 2 REVIEW QUESTIONS

1. WHEN YOU SEE THIS SIGN, YOU MUST:
   A. Stop completely, check for pedestrians, and cross traffic
   B. Slow down without coming to a complete stop
   C. Stop completely and wait for a green light
   D. Slow down and check for traffic

2. THIS IS THE SHAPE AND COLOR OF A __________ SIGN.
   A. Stop
   B. Wrong Way
   C. Yield
   D. Do not enter

3. THIS SIGN MEANS:
   A. Stop
   B. No U-Turn
   C. Yield
   D. Do not enter

4. THIS SIGN MEANS:
   A. No U-Turn
   B. No Turning
   C. No left turn
   D. No right turn

5. THIS SIGN MEANS:
   A. No U-Turn
   B. No left turn
   C. No right turn
   D. No turning

6. THIS SIGN MEANS:
   A. You must turn left or right
   B. You are approaching a T-intersection
   C. The road that you are on intersects with a divided highway
   D. Designates an overpass above a divided highway

7. YOU NEED TO USE EXTRA CAUTION WHEN DRIVING NEAR A PEDESTRIAN USING A WHITE CANE BECAUSE:
   A. He or she is deaf
   B. He or she has a mental disability
   C. He or she is blind
   D. He or she has a walking problem

8. WHEN DRIVING NEAR A BLIND PEDESTRIAN WHO IS CARRYING A WHITE CANE OR USING A GUIDE DOG, YOU SHOULD:
   A. Slow down and be prepared to stop
   B. Take the right-of-way
   C. Proceed normally
   D. Drive away quickly
9. **IF THERE ARE NO SIGNALS AT A RAILROAD CROSSING, YOU SHOULD:**
   A. Slow down and prepare to stop if you see or hear a train approaching
   B. Proceed as quickly as possible over the tracks
   C. Proceed through the crossing at a normal rate
   D. Proceed slowly over the tracks

10. **YOU MAY DRIVE AROUND THE GATES AT A RAILROAD CROSSING:**
    A. When the train has passed
    B. Never
    C. When the lights have stopped flashing
    D. When other drivers drive around the gates

11. **IF YOU SEE THIS SIGN ABOVE YOUR LANE, YOU:**
    A. May not exit the freeway in this lane
    B. May continue through the interchange or exit the freeway in this lane
    C. May stay in this lane and continue through the interchange
    D. Must exit the freeway if you stay in this lane

12. **HIGHWAY AND EXPRESSWAY GUIDE SIGNS ARE:**
    A. Orange with black letters
    B. Green with white letters
    C. Yellow with black letters
    D. Red with white letters

13. **THIS SIGN IS USED TO WARN DRIVERS ABOUT:**
    A. Upcoming intersections
    B. Road construction
    C. Road curves ahead
    D. Changes in traffic lanes

14. **THIS SIGN TELLS YOU THAT:**
    A. No turns are allowed on this road
    B. The road narrows ahead
    C. There are a series of curves ahead
    D. The road may be slippery when wet

15. **THIS SIGN MEANS:**
    A. Left curve ahead
    B. Series of curves
    C. S curved ahead
    D. Slippery when wet

16. **THIS SIGN INDICATES THAT:**
    A. There is a steep hill ahead
    B. No trucks are allowed on the hill
    C. A logging road is ahead
    D. There are trucks on the hill

17. **A YELLOW AND BLACK DIAMOND-SHAPED SIGN:**
    A. Warns you about conditions on or near the road
    B. Helps direct you to cities and towns ahead
    C. Tells you about traffic laws and regulations
    D. Tells you about road construction ahead
18. THE SIGN WITH THIS SHAPE AND COLOR IS A _____________ SIGN.
   A. No passing zone
   B. Wrong way
   C. Railroad crossing
   D. Stop

19. WHICH OF THESE SIGNS IS USED TO SHOW THE END OF A DIVIDED HIGHWAY?
   A. 2
   B. 4
   C. 3
   D. 1

20. THIS SIGN IS USED TO WARN DRIVERS ABOUT:
   A. Lane ends, merge left
   B. Road curves ahead
   C. Upcoming intersections
   D. Road construction

21. THIS SIGN SHOWS ONE TYPE OF:
   A. Intersection
   B. Road curve
   C. Right turn
   D. Lane change

22. THIS SIGN SHOWS ONE TYPE OF:
   A. Right turn
   B. Intersection
   C. Lane change
   D. Road curve

23. WHAT SHOULD YOU BE MOST CONCERNED ABOUT WHEN YOU SEE THIS SIGN?
   A. Driving with your headlights out of alignment because one side of your car
      is higher than the other
   B. Damaging a tire, if you drift onto the shoulder
   C. Hydroplaning, if the shoulder has water on it
   D. Losing control of your vehicle, if you drift onto the shoulder, because of a drop off

24. WHAT IS THE MEANING OF THIS SIGN?
   A. The traffic signal ahead is red
   B. The traffic signal ahead is broken
   C. The traffic signal ahead is green
   D. There is a traffic signal ahead

25. THIS SIGN MEANS:
   A. Divided highway ends
   B. One-way street begins
   C. One-way street ends
   D. Divided highway begins

26. FROM TOP TO BOTTOM, THE FOLLOWING IS THE PROPER ORDER FOR TRAFFIC LIGHTS:
   A. Red, yellow, green
   B. Red, green, yellow
   C. Green, red, yellow
   D. Green, yellow, red
27. IF A GREEN ARROW TURNS INTO A GREEN LIGHT, YOU:
   A. May still turn but you must yield to oncoming traffic
   B. May no longer turn and must proceed straight
   C. Still have the right of way to turn
   D. No longer have to turn the way the arrow indicates

28. A STEADY YELLOW LIGHT AT AN INTERSECTION MEANS:
   A. Go
   B. Yield to other cars
   C. Slow down and prepare to stop
   D. Stop

29. A FLASHING YELLOW LIGHT MEANS THAT YOU SHOULD:
   A. Slow down and proceed with care
   B. Continue through if the way is clear
   C. Stop and proceed when a green light appears
   D. Stop and proceed when the way is clear

30. YOU MUST STOP WHEN YOU SEE A:
   A. Flashing red light
   B. Steady yellow light
   C. Yellow arrow
   D. Flashing yellow light

31. A STEADY GREEN LIGHT AT AN INTERSECTION MEANS THAT YOU:
   A. Must slow down and prepare to stop
   B. Must stop and check for oncoming traffic before proceeding
   C. May drive through the intersection if the road is clear
   D. May not turn right

32. A STEADY YELLOW LIGHT MEANS THAT A _______ LIGHT WILL SOON APPEAR.
   A. Flashing yellow
   B. Steady green
   C. Steady red
   D. Flashing red

33. YOU MAY CONTINUE CAREFULLY THROUGH A YELLOW LIGHT IF:
   A. There is an emergency vehicle crossing your lane
   B. There are no pedestrians crossing
   C. You are turning right
   D. You are within the intersection

34. YOU MAY TURN LEFT AT A RED LIGHT IF:
   A. There is no traffic coming in the opposite direction
   B. You are turning from a two-way street onto a one-way street
   C. You are turning from a one-way street onto another one-way street
   D. The car in front of you turns left

35. IF A TRAFFIC LIGHT IS BROKEN OR NOT FUNCTIONING YOU SHOULD:
   A. Stop and wait for it to be repaired
   B. Stop and wait for a police officer to arrive
   C. Continue as if it were a four-way stop sign
   D. Continue as you normally would
36. YOU MAY TURN RIGHT ON RED IF YOU:
   A. Stop first and check for traffic and pedestrians
   B. Have a right turn red arrow
   C. Are in the left lane
   D. Slow down first

37. WHEN MAKING A RIGHT TURN ON A GREEN LIGHT, YOU MUST:
   A. Maintain normal driving speed
   B. Stop and look for oncoming traffic
   C. Yield to pedestrians
   D. Increase your normal driving speed

38. THE SPEED LIMIT IS _______ MILES PER HOUR WHEN THE YELLOW LIGHTS ARE FLASHING ON THE SCHOOL ZONE SPEED SIGN.
   A. 25
   B. 15
   C. 20
   D. 35

39. A FLASHING RED LIGHT AT A RAILROAD CROSSING MEANS:
   A. Stop, do not proceed until signals are completed
   B. Slow down and proceed if clear
   C. Proceed with caution
   D. You have the right-of-way

40. THIS GREEN ARROW ON A LANE USE CONTROL SIGNAL MEANS THAT:
   A. You may use this lane
   B. No traffic is allowed in this lane
   C. You have the right-of-way
   D. You must merge into this lane

41. THIS SIGN MEANS:
   A. Pedestrians ahead
   B. End of construction zone
   C. School crossing ahead
   D. Flagger ahead

42. THIS SIGN MEANS THAT:
   A. A community service group is picking up trash along the highway ahead
   B. Workers are on or very close to the road in the work zone ahead
   C. Children are at play ahead
   D. There is a pedestrian crosswalk ahead

43. WHEN AN ARROW PANEL IN A WORK ZONE SHOWS EITHER OF THE FOLLOWING PATTERNS, IT MEANS:
   A. The bulbs on the sign are burned out
   B. Drive with caution
   C. Changes lanes immediately
   D. Tune your radio to a station that gives traffic updates

44. THE CENTER LANE IN THE ILLUSTRATION IS USED FOR:
   A. Regular travel
   B. Left turns only
   C. Passing only
   D. Emergency vehicles only
45. YOU MAY PASS IF THE LINE DIVIDING TWO LANES IS A ___________ LINE.
   A. Broken white
   B. Double solid yellow
   C. Solid yellow
   D. Solid white

46. LANES OF TRAFFIC MOVING IN THE SAME DIRECTION ARE DIVIDED BY ____ LINES.
   A. Yellow
   B. White
   C. Red
   D. Black

47. YOU MAY NOT PASS ANOTHER CAR ON EITHER SIDE OF A _______ CENTERLINE.
   A. Combination solid and broken yellow
   B. Single broken yellow
   C. Double solid yellow
   D. Single broken white

48. YOU MAY CROSS SOLID YELLOW LINES:
   A. To pass traffic moving in the same direction
   B. During daylight hours only
   C. At any time
   D. When making turns

49. THE ROAD EDGE ON THE RIGHT SIDE IS MARKED BY A ___________ LINE.
   A. Broken white
   B. Solid yellow
   C. Solid white
   D. Broken yellow audio

50. LANES OF TRAFFIC MOVING IN THE OPPOSITE DIRECTION ARE DIVIDED BY ____ LINES.
   A. White
   B. Red
   C. Black
   D. Yellow

51. WHEN YOU SEE THIS BLACK AND YELLOW SIGN, IT MEANS:
   A. The road to the right is for one-way traffic only
   B. Detour to the right because of road construction
   C. Slow down because the road ahead changes direction at an extreme angle
   D. There is a cross road ahead on your right

52. WHEN YOU SEE THIS SIGN, IT MEANS:
   A. There is an object on the roadway
   B. Traffic is coming from the right
   C. The road is curving sharply to the left
   D. There is a merge point ahead

53. AT AN INTERSECTION CONTROLLED BY A STOP SIGN, IF YOU CAN’T GET A GOOD VIEW OF CROSSTREET TRAFFIC WHEN YOU STOP BEHIND THE WHITE TOP BAR PAINTED ON THE PAVEMENT, YOU SHOULD:
   A. Wait 5 seconds, then proceed.
   B. Sound your horn before proceeding
   C. Put down your windows, listen for traffic, and then proceed
   D. Pull forward slowly, check for traffic and pedestrians, and proceed when clear
54. THE POSTED SPEED LIMITS SHOW:
   A. The minimum legal speed limit
   B. The exact speed at which you must travel to avoid a ticket
   C. The maximum safe speed under ideal road and weather conditions
   D. The maximum safe speed under all road conditions

55. A HIGHWAY WITH TWO-WAY TRAFFIC IS MARKED BY WHICH OF THESE SIGNS?
   A. 1
   B. 2
   C. 3
   D. 4

56. FROM THE CENTER LANE, WHAT MANEUVERS CAN YOU PERFORM?
   A. Make left turns
   B. Make U-turns
   C. Pass slower-moving traffic
   D. All of the above

57. WHICH OF THESE SIGNS MEANS THAT DRIVERS SHOULD KEEP TO THE RIGHT?
   A. 2
   B. 1
   C. 3
   D. 4
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