

E-Bike Classes: The Difference Between Class 1, 2, & 3

May 14, 2019



CLASS 1

A "Class 1 electric bicycle," or "low-speed pedal-assisted electric bicycle," is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.



CLASS 2

A "Class 2 electric bicycle," or "low-speed throttle-assisted electric bicycle," is a bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.



CLASS 3

A "Class 3 electric bicycle," or "speed pedal-assisted electric bicycle," is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour, and is equipped with a speedometer.



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MICHIGAN COMPILED LAWS (MCL): BICYCLES AND THE LAW

Local ordinances generally may not supersede the MCL unless specified in state statute.

1. Is a bicycle considered a vehicle in Michigan?

No. *MCL 257.79* defines a “vehicle” as:

“every device in, upon, or by which any person or property is or may be transported or drawn upon a highway, except devices exclusively moved by human power...”

2. What is the definition of a bicycle?

MCL 257.4 defines a “bicycle” as:

“...a device propelled by human power upon which a person may ride, having either 2 or 3 wheels in a tandem or tricycle arrangement, all of which are over 14 inches in diameter.”

3. Where do Michigan laws apply to bicyclists?

MCL 257.656(3) states:

“The regulations applicable to bicycles under sections 656 to 662 shall apply when a bicycle is operated upon a highway or upon a path set aside for the exclusive use of bicycles, subject to those exceptions stated in sections 656 to 662.”

4. Does a bicyclist have to obey the same traffic laws as a motorist?

Yes, with exceptions. *MCL 257.657* states:

“Each person riding a bicycle...upon a roadway has all of the rights and is subject to all of the duties applicable to the driver of a vehicle by this chapter, except as to special regulations in this article and except as to the provisions of this chapter which by their nature do not have application.”

5. Does a bicyclist have to signal their turns?

Yes. *MCL 257.648* states:

“When a person is operating a bicycle and signal is given by means of the hand and arm, the operator shall signal as follows:

(a) Left turn...extend...hand and arm horizontally.

(b) Right turn...extend...left hand and arm upward or... right hand and arm horizontally.

(c) Stop or decrease speed...extend...hand and arm downward.”

6. Does a bicyclist have to ride with the direction of traffic?

Yes. *MCL 257.634 (1)* states:

“Upon each roadway of sufficient width, the driver of a vehicle shall drive the vehicle upon the right half of the roadway...”

Since bicyclists have all the rights and is subject to all the duties applicable to the driver of a vehicle according to *MCL 257.657*, they must generally ride in the right half of the roadway. On one-way roads, bicyclists can ride on the left side of the road. (See *MCL 257.660a(e)* below.)

7. Where in the right half of the roadway must a bicyclist ride?

MCL 257.660a states:

"A person operating a bicycle upon a highway or street at less than the existing speed of traffic shall ride as close as practicable to the right-hand curb or edge of the roadway except as follows:

- (a) When overtaking and passing another bicycle or any other vehicle proceeding in the same direction.
- (b) When preparing to turn left.
- (c) When conditions make the right-hand edge of the roadway unsafe or reasonably unusable by bicycles, including, but not limited to, surface hazards, an uneven roadway surface, drain openings, debris, parked or moving vehicles or bicycles, pedestrians, animals, or other obstacles, or if the lane is too narrow to permit a vehicle to safely overtake and pass a bicycle.
- (d) When operating a bicycle in a lane in which the traffic is turning right but the individual intends to go straight through the intersection.
- (e) When operating a bicycle upon a 1-way highway or street that has 2 or more marked traffic lanes, in which case the individual may ride as near the left-hand curb or edge of that roadway as practicable."

8. Can a bicyclist be ticketed for impeding traffic if they are traveling on a roadway and obeying all rules of the road?

No. Bicyclists are considered traffic based on *MCL 257.69* and have the same rights and responsibilities applicable to the driver of a vehicle according to *MCL 257.657*. The spirit of the impeding traffic statute, *MCL 257.676b*, is intended to refer to stationary objects such as a vehicle parked across the roadway with the intention of obstructing traffic. Some bicyclists have been warned and even cited with violating *MCL 257.676b*. Multiple Michigan judges, however, have ruled that the statute does not apply to bicyclists lawfully traveling on a public roadway.

MCL 257.69 states: ... "traffic means pedestrians, ridden or herded animals, vehicles, street cars and other conveyances either singly or together while using any highway for purposes of travel."

9. May bicyclists ride two abreast?

Yes. *MCL 257.660b* states:

"Two or more individuals operating bicycles upon a highway or street shall not ride more than 2 abreast except upon a path or portion of the highway or street set aside for the use of bicycles."

10. Is it legal for a bicyclist to ride between lanes (lane split)?

No. Because bicyclists have all the duties of a vehicle driver, they have the duty to drive in a single lane. *MCL 257.657* states that bicyclists on roadways have all the rights and duties of vehicle drivers and *MCL 257.642(1)(a)* states that vehicles shall be driven entirely in a single lane.

Bicyclists may only pass on the right if there is a dedicated bicycle facility.

11. Must a bicyclist ride on the sidewalk? Is it legal? What about crosswalks?

State law does not require bicyclists to ride on the sidewalk. State law also does not prohibit sidewalk riding, but does offer a provision to allow it to be regulated locally through ordinance and posted signs. *MCL 257.660c* states:

(1) An individual operating a bicycle upon a sidewalk or a pedestrian crosswalk shall yield the right-of-way to pedestrians and shall give an audible signal before overtaking and passing a pedestrian.

(2) An individual shall not operate a bicycle upon a sidewalk or a pedestrian crosswalk if that operation is prohibited by an official traffic control device.

(3) An individual lawfully operating a bicycle upon a sidewalk or a pedestrian crosswalk has all of the rights and responsibilities applicable to a pedestrian using that sidewalk or crosswalk.

LMB does not generally recommend riding on the sidewalk because of safety hazards to the bicyclist and pedestrians.

12. Must a bicyclist ride in a bike lane or a side path?

No. State law does not require bicyclists to use bike lanes, even if present. In 2006, *MCL 257.660 (3)* was amended, removing “bicyclists” from being required to use side paths.

13. Is it legal to ride on a limited-access highway (expressway)?

No. *MCL 257.679a(1)* states:

“... nor shall a...bicycle, except as provided in this ...be permitted on a limited access highway in this state. Bicycles shall be permitted on paths constructed separately from the roadway and designated for the exclusive use of bicycles.”

14. Does a bicyclist have to wear a helmet?

State law does not require bicyclists to wear helmets. LMB strongly recommends helmet use, however, since they are proven to help prevent serious brain injuries.

15. Does a bicyclist have to use lights?

Yes, if riding at night. *MCL 257.662* states:

(1) A bicycle...being operated on a roadway between ½ hour after sunset and ½ hour before sunrise shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least 500 feet to the front and with a red reflector on the rear which shall be visible from all distances from 100 feet to 600 feet to the rear when directly in front of lawful lower beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of 500 feet to the rear may be used in addition to the red reflector.

In addition to a rear reflector, LMB strongly recommends using a rear red light, even though state law does not require it. A bicyclist may only use a white light on the front. A blue light is reserved for emergency services and may not be used. A white light may not be used on the rear of a bicycle.

MCL 257.662 (4) and (5) make it illegal to sell a bicycle or bike pedal without pedal reflectors, or a bike without "either tires which have reflective sidewalls or with wide-angle prismatic spoke reflectors."

16. Does the law require brakes on bicycles?

Yes. *MCL 257.662(2)* states:

"A bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement."

17. Is it legal to park on the street? Where can bicyclists park on a sidewalk?

Yes, where parking is allowed and does not obstruct. *MCL 257.660d* states:

(1) An individual may park a bicycle on a sidewalk except as prohibited by an official traffic control device.*

(2) An individual shall not park a bicycle on a sidewalk in such a manner that the bicycle impedes the lawful movement of pedestrians or other traffic.

(3) An individual may park a bicycle on a highway or street at any location where parking is allowed for motor vehicles, may park at any angle to the curb or the edge of the highway, and may park abreast of another bicycle.

(4) An individual shall not park a bicycle on a highway or street in such a manner as to obstruct the movement of a legally parked motor vehicle.

(5) Except as otherwise provided in this, an individual parking a bicycle on a highway or street shall do so in compliance with this act and any local ordinance.

*The statute was amended effective March 19, 2019 to add “or an electric skateboard equipped with handlebars” (i.e. e-scooter) to each clause.

18. Is it legal to use a cell phone or text while riding a bicycle?

Only if the cell phone is in hands-free mode. *MCL 257.661* states:

“A person operating a bicycle...shall not carry any package, bundle, or article that prevents the driver from keeping both hands upon the handlebars of the vehicle.”

19. Is there a three-foot passing law in Michigan? Can a driver pass bicyclists in no-passing zones?

Yes. *MCL 257.636* states:

(2) The driver of a motor vehicle overtaking a bicycle proceeding in the same direction shall pass at a safe distance of at least 3 feet to the left of that bicycle or, if it is impracticable to pass the bicycle at a distance of 3 feet to the left, at a safe distance to the left of that bicycle at a safe speed, and when safely clear of the overtaken bicycle shall take up a position as near the right-hand edge of the main traveled portion of the highway as is practicable.

(3) Notwithstanding section 640, if it is safe to do so, the driver of a vehicle overtaking a bicycle proceeding in the same direction may overtake and pass the bicycle in a no-passing zone.

(4) A person who violates this section is responsible for a civil infraction.

At least nine communities in Michigan have enacted local five-foot passing ordinances, including Ann Arbor, Dearborn, Grand Rapids, Kalamazoo, Kalamazoo Twp, Muskegon, Norton Shores, Oshtemo Twp, and Portage. It is LMB’s interpretation of Michigan case law that the state’s three-foot passing law does not preempt local five-foot ordinances.

MCL also addresses when a bicyclist is riding in the leftmost lane of a one-way street, or moving away from the right side of road to prepare to make a left turn.

MCL 257.637 states:

(3) The driver of a vehicle overtaking a bicycle proceeding in the same direction shall, when otherwise permitted by this section, pass at a distance of 3 feet to the right of that bicycle or, if it is impracticable to pass the bicycle at a distance of 3 feet to the right, at a safe distance to the right of that bicycle at a safe speed.

(4) A person who violates this section is responsible for a civil infraction.

This law does not allow motorists to pass to the right of a bicyclist when they are riding as far to the right as practicable or taking the lane. The Michigan Vehicle Code prohibits motorists from leaving the roadway onto the shoulder to pass a vehicle, including a bicyclist.

20. What other rules must a motorist follow when overtaking or following a bicyclist?

MCL 257.627 states:

(1) A person operating a vehicle on a highway shall operate that vehicle at a careful and prudent speed not greater than nor less than is reasonable and proper, having due regard to the traffic, surface, and width of the highway and of any other condition then existing. A person shall not operate a vehicle upon a highway at a speed greater than that which will permit a stop within the assured, clear distance ahead.

Motorists must have their vehicle under control when following a bicyclist to be able to react safely if the bicyclist must make an emergency maneuver.

21. Can you be charged with a DUI while riding your bicycle?

No. Although it is dangerous to ride while intoxicated, a bicycle is not a motor vehicle according to state law. DUI applies only to motor vehicle operators. Other laws may apply however, such as disorderly conduct.

22. What are the penalties for a bicyclist violating the Michigan Vehicle Code related to bicycling?

MCL 257.656 states:

(1) A person who violates any of sections 656 to 661a is responsible for a civil infraction.

(2) The parent of a child or the guardian of a ward shall not authorize or knowingly permit the child or ward to violate this chapter.

23. If a bicyclist is cited for a violation, does it go on their driving record?

No. The violations are civil infractions and do not go on a person's driving record. There are no points associated with a bicycle violation.

24. Is it legal to carry another person on a bicycle? What about a child seat?

No, unless the seat is designed to be attached. This allows for the legal use of a child seat since it is designed to be attached to the bicycle. *MCL 257.658 states:*

(1) A person propelling a bicycle ... shall not ride other than upon and astride a permanent and regular seat attached ...

(2) A bicycle ... shall not be used to carry more persons at 1 time than the number for which it is designed and equipped.

25. Is it legal to grab onto another vehicle to "hitch a ride"?

No. *MCL 257.659 states:*

"A person riding upon a bicycle ... shall not attach the same or himself to a streetcar or vehicle upon a roadway."

26. What is the definition of a roadway?

MCL 257.55 states:

“Roadway means that portion of a highway improved, designed or ordinarily used for vehicular travel.”

Therefore, the gutter is not considered part of the roadway.

27. Does a bicyclist have to carry a driver’s license?

The law does not require you to carry a driver’s license.

If involved in a law violation, however, law enforcement may detain you long enough to ascertain and verify your identity. LMB strongly recommends that all bicyclists carry a photo ID and emergency contact information when riding. Law enforcement or safety personnel may need to identify you in case of an emergency. If you have health issues of any kind, it is critical that you carry identification that identifies you and your health issues.

28. What are the laws regarding the use of electric bicycles?

An e-bike is defined by a seat, pedals, and an electric motor of 750 watts or less.

- A class 1 e-bike can be motor-assisted up to 20 miles per hour when pedaling.
- A class 2 e-bike can also have a throttle to engage the motor without pedaling.
- A class 3 e-bike can be motor-assisted up to 28 miles per hour when pedaling.

MCL 257.13e defines an e-bike:

“Electric bicycle” means a device upon which an individual may ride that satisfies all of the following:

(a) The device is equipped with all of the following:

- (i) A seat or saddle for use by the rider.
- (ii) Fully operable pedals for human propulsion.
- (iii) An electric motor of not greater than 750 watts.”

(b) The device falls within 1 of the following categories:

(i) Class 1 electric bicycle. As used in this subparagraph, “class 1 electric bicycle” means an electric bicycle that is equipped with an electric motor that provides assistance only when the rider is pedaling and that disengages or ceases to function when the electric bicycle reaches a speed of 20 miles per hour.

(ii) Class 2 electric bicycle. As used in this subparagraph, “class 2 electric bicycle” means an electric bicycle that is equipped with a motor that propels the electric bicycle to a speed of no more than 20 miles per hour, whether the rider is pedaling or not, and that disengages or ceases to function when the brakes are applied.

(iii) Class 3 electric bicycle. As used in this subparagraph, “class 3 electric bicycle” means an electric bicycle that is equipped with a motor that provides assistance only when the rider is pedaling and that disengages or ceases to function when the electric bicycle reaches a speed of 28 miles per hour.”

MCL 324.72105(2) and MCL 257.657 indicate which types of e-bikes can be ridden on what types of facilities:

All three classes of e-bikes are allowed on roadways: *An individual may operate an electric bicycle on any part of a highway that is open to a bicycle, including, but not limited to, a lane designated for the exclusive use of bicycles and the shoulder.*

Class 1 e-bikes are also allowed to ride on a linear trail that has an asphalt, crushed limestone, or similar surface. This means that Class 1 e-bikes are allowed on a typical rail-trail or similar trail facility. Local governing bodies, however, have the final say in whether an e-bike is permitted on a local trail and may regulate or prohibit the operation of a Class 1 electric bicycle on that trail.

Class 2 and Class 3 e-bikes are more restricted in their use. They are allowed on a linear trail that has an asphalt, crushed limestone, or similar surface, or a rail-trail if authorized by the local authority or agency of this state having jurisdiction over the trail. This means a local governing body must give special permission within their jurisdiction to permit Class 2 and Class 3 e-bikes on their trails.

All three classes of e-bikes are prohibited on any trail that is designated as nonmotorized and that has a natural surface tread that is made by clearing and grading the native soil with no added surfacing materials. This means that e-bikes

are not allowed on mountain biking trails. However, again, local governing bodies have the power to permit e-bikes on their non-motorized natural surface trails.

Even though a local governing body may prohibit, authorize, or regulate the use of electric bicycles within its jurisdiction, in order for them to exercise that power they must hold a public hearing on the matter.

MCL 500.3101 excludes e-bikes from insurance requirements under the Insurance Code.

29. Can a motorist be ticketed for an obstructed license plate due to the use of a rear-mounted bicycle rack?

No. Public Act 147 of 2018 amended *MCL 227.225 (2)* to stipulate that a bicycle rack on the rear of a vehicle, including the bicycle being carried, does not constitute an *"obstructed license plate"*. PA 147 took effect on August 14, 2018. The law states:

"The attachment to the rear of a vehicle of a tow ball, bicycle rack, removable hitch, or any other device designed to carry an object on the rear of a vehicle, including the object being carried, does not violate this subsection."



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MICHIGAN VEHICLE CODE (EXCERPT)
Act 300 of 1949

257.662a Electric bicycle; rights of individual; label to be affixed by manufacturer or distributor; tampering with or modification of electric bicycle prohibited; requirements applicable to class 3 electric bicycle; compliance with federal requirements; operation on highway or within city; operation of class 1, class 2, or class 3 electric bicycle on certain trails; compliance with Americans with disabilities act of 1990 and persons with disabilities civil rights act; public hearing; inapplicability of subsections (6) to (10) to use of electric bicycles on congressionally authorized public trail system.

Sec. 662a. (1) Except as otherwise provided in this section, an individual riding an electric bicycle is subject to the same requirements under this act as an individual riding a bicycle.

(2) Beginning on January 1, 2018, a manufacturer or distributor of electric bicycles offered for sale or distribution in this state shall permanently affix in a prominent location on the electric bicycle a label that contains the classification number, top assisted speed, and motor wattage of the electric bicycle. The label required under this subsection shall be printed in Arial font and shall be at least 9-point type.

(3) A person shall not tamper with or modify an electric bicycle so as to change the manufactured motor-powered speed capability or motor engagement of the electric bicycle without replacing the label required under subsection (2) with an appropriate label printed in Arial font and in at least 9-point type. For purposes of this act, a device shall not be considered an electric bicycle if the motor is modified in a manner that no longer meets the criteria described in section 13e, or if the motor exceeds 750 watts.

(4) All of the following apply to a class 3 electric bicycle:

(a) A class 3 electric bicycle shall not be operated by an individual less than 14 years of age. An individual less than 14 years of age may ride as a passenger on a class 3 electric bicycle that is designed to accommodate passengers.

(b) An individual less than 18 years of age who operates or rides as a passenger on a class 3 electric bicycle shall wear a properly fitted and fastened bicycle helmet that meets federal standards established by the United States Consumer Product Safety Commission or the American Society for Testing and Materials.

(5) An electric bicycle shall comply with applicable equipment and manufacturing requirements for electric bicycles established under federal law, including standards adopted by the United States Consumer Product Safety Commission and compiled in 16 CFR part 1512.

(6) Except as otherwise provided in subsection (7), an individual may operate an electric bicycle on any part of a highway that is open to a bicycle, including, but not limited to, a lane designated for the exclusive use of bicycles and the shoulder.

(7) An individual shall not operate an electric bicycle within a city that prohibits the use of nonemergency motor vehicles, unless the city council of that city, by majority vote, adopts a resolution allowing the operation of electric bicycles within city limits. An individual shall not operate an electric bicycle within the Mackinac Island State Park, unless he or she has obtained the required permit from the Mackinac Island State Park Commission created in part 767 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.76701 to 324.76709, or unless the Mackinac Island State Park Commission authorizes the operation of electric bicycles within its jurisdiction. If a city described in this subsection or the Mackinac Island State Park Commission authorizes the operation of electric bicycles within its jurisdiction, the city or the Mackinac Island State Park Commission may regulate the operation of electric bicycles within its jurisdiction.

(8) An individual may operate a class 1 electric bicycle on a linear trail that has an asphalt, crushed limestone, or similar surface, or a rail trail. A local authority or agency of this state having jurisdiction over a trail described in this subsection may regulate or prohibit the operation of a class 1 electric bicycle on that trail.

(9) An individual may operate a class 2 or class 3 electric bicycle on a linear trail that has an asphalt, crushed limestone, or similar surface, or a rail trail if authorized by the local authority or agency of this state having jurisdiction over the trail.

(10) Except as otherwise provided in this subsection, an individual shall not operate an electric bicycle on a trail that is designated as nonmotorized and that has a natural surface tread that is made by clearing and grading the native soil with no added surfacing materials. A local authority or agency of this state having jurisdiction over a trail described in this subsection may allow and regulate the operation of an electric bicycle on that trail.

(11) This state or a local authority or agency of this state shall administer the provisions of this section in a manner that complies with the Americans with disabilities act of 1990, Public Law 101-336, and the persons

with disabilities civil rights act, 1976 PA 220, MCL 37.1101 to 37.1607.

(12) Before an entity described in subsections (7) to (10) may prohibit, authorize, or regulate the use of electric bicycles within its jurisdiction, that entity shall hold a public hearing on the matter.

(13) Subsections (6) to (10) do not apply to the use of electric bicycles on a congressionally authorized public trail system.

History: Add. 2017, Act 139, Eff. Jan. 28, 2018.