

MONTANA TEEN DRIVER EDUCATION & TRAINING

Module 2.3.2 – Traffic Control and Laws *Signs & Signals* LESSON PLAN & TEACHER COMMENTARY

Module 2.3.2 - Long-term Learning Goals

The student is expected to:

- describe the need and purpose for traffic control devices for signs, signals, and markings;
- list and describe the color and function of traffic signal lights, and signal/sign combinations;
- list and explain meanings of colors and shapes of roadway signs, signals, and markings;
- categorize roadway signs, signals, and markings into meaningful applications;
- describe appropriate driver responses to roadway signs, signals, and markings; and
- apply the traffic laws for operating a motor vehicle on public streets and highways and operate the vehicle within those laws.

Materials Needed:

1. Module 2.3.2 PowerPoint Presentation
2. Module 2.3.2 Fact and Work Sheets (printed for each student)
3. Module 2.3.2 Teacher Commentary (printed out)
4. Paper for activities, if needed

Module 2.3.1 – Cover slide

There are two presentations and a quiz in Module 2.3. This one covers Traffic Control and Laws – Signs & Signals.



TEACHER COMMENTARY

This teacher commentary can be used with the accompanying PowerPoint presentation, and includes questions and comments related to Traffic Control & Laws - Roadway Markings.

Representation of the module slides are provided to allow you to connect the materials, data, and questions with the presentation.

Slide 3 – Pavement Markings

- Regulate traffic, movement or parking
- Warn of potential dangers or road conditions
- Provide information and guidance

Traffic signs have three purposes:

Slides 4-5 – Regulatory Signs

Regulatory Signs

Slide 6-7 – Warning Signs

Warning Signs

Warning Signs

Slide 8 – Guide Signs

Guide Signs

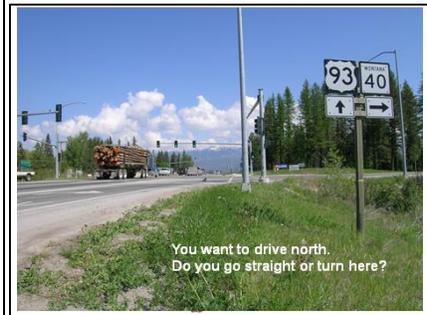
Slide 9 – Interstate Highway Numbers

- Even numbers go east-west (I-90, I-94)
- Odd numbers go north-south (I-15)
- Numbers begin in the west and get larger as they move east
- Alternate routes are usually three-digit



Slide 10 – Which way north?

What do the signs tell you?



Slide 11 – Unless otherwise posted ...

- In 2015, the Legislature approved an 80 mph speed limit on Interstate highways 15, 90 and 94 in areas other than through cities with a 55,000 population or more where traffic must slow to 65 mph.
- 55 mph – all other roads and highways not meeting other definitions.
- Montana Speed Limits history – From December 8, 1995 to May 28, 1999 Montana’s day time automobile speed limits were “reasonable and prudent,” under Basic Rule MCA 61-8-303(1).
- In 1995 Congress repealed the 1974 National Maximum Speed Law, fully returning speed limit setting authority to the states.

Unless otherwise posted...



- Residential Street? 25 mph
- State Highways? 50 - 70 mph
- Interstate (Freeway)? Varies
- 65 - 80 mph

Slide 12 – Regulatory or Guide signs?

Regulatory, Warning or Guide?

	Red		Green
	Blue		Yellow
	Black		White
	Orange		Brown
	Fluorescent		

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Slide 13 – Shapes have meaning

What colors go with the sign shapes?

Use work sheet or flip charts on wall as graphic organizer.

Shapes Have Meaning

	Octagon		Rectangle
	Triangle		Pennant
	Diamond		Rectangle
	Pentagon		Circle
	Crossbuck		

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Slide 14 – Railroad Crossing Warnings

Every driver must **YIELD** the right of way to a train. Trains have the right of way 100% of the time over emergency vehicles, cars, the police and pedestrians.

Cross-buck sign should be considered the same as a **YIELD**.

Railroad Crossing Warnings



RR sign or RR painted on the pavement are advanced **warning** signs.

Crossbucks are **regulatory** signs. **Drivers must yield!**

Flashing red lights
Bells
Gates
If you hear or see a train 

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Slide 15 – Railroad Crossings

Identify the active and passive signals at this crossing.

Ask student to take photos of local RR crossings.

Freight trains don't travel at fixed times, and schedules for passenger trains change. Always expect a train at each highway-rail intersection. All train tracks are private property. Never walk on tracks; it's illegal trespass and highly dangerous. By the time a locomotive engineer sees a trespasser or vehicle on the tracks it's too late. It takes the average freight train traveling at 55 mph more than a mile—the length of 18 football fields—to stop. Trains cannot stop quickly enough to avoid a collision.



The average locomotive weighs about 400,000 pounds or 200 tons; it can weigh up to 6,000 tons. This makes the weight ratio of a car to a train proportional to that of a soda can to a car. We all know what happens to a soda can hit by a car. <http://oli.org/education-resources/safety-tips/safety-tips-and-facts/>

Slide 16 – Line-of-Sight, Path-of-Travel Clues
Clues: open, closed or unstable?

- Detour= Closed Zone – Path is blocked cannot occupy that space
- Limited Sight Distance = Closed zone – LOS is blocked
- Yield = Closed Zone – Path temporarily blocked
- Green Arrow Lane Open = Open Zone path is not blocked
- Do Not Enter = Closed Zone – path is permanently blocked
- Railroad Crossing = Closed or Unstable Zone – Danger, may be a train. Tracks on raised grade can be treated as closed / slow
- Pavement Marking Arrow and Stop = Closed Zone – path temp blocked
- Right Lane Ends = Closed Zone – path is permanently blocked
- Pedestrian Crossing = Unstable Zone – Danger, may be pedestrians
- Tractors ahead = Unstable Zone – Danger, may be slow moving tractor



Slide 17-18 – Work Zone Areas

Barrel Bob Missouri Work Zone - MoDOT

- Orange signs signal work zone areas
- Proceed with extreme caution
- Drive at the posted speed
- Watch out for workers



- Stay in your lane
- Report unsafe conditions

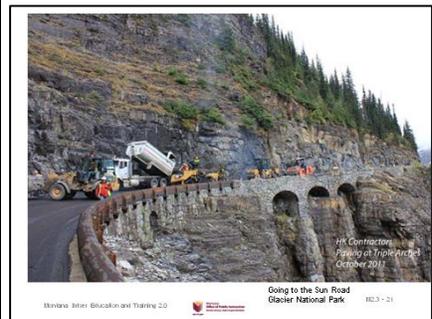
Slide 19 – Road construction



Slide 20 - Flaggers



Slide 21 – Repairing the Going-to-the-Sun Road in Glacier National Park



Slide 22 – Work Zone Areas – closed road



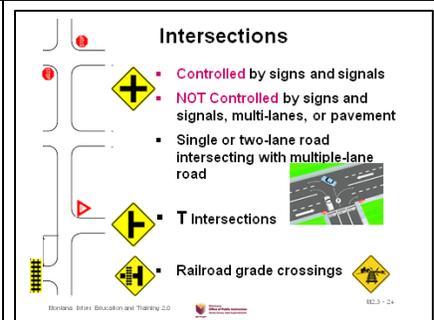
Slide 23 – Beartooth Highway mudslide

On May 20, 2005, mudslides from heavy rain and snow runoff damaged the Beartooth Highway at 13 sites along approximately 12 miles of roadway.

The Beartooth Highway, which is part of US Highway 2012, opened in 1936. It begins at Red Lodge and winds 68 miles through the rugged and scenic Beartooth Mountains ending at the Northeast Entrance to Yellowstone National Park. At its highest point the road reaches 10,947 feet.



Slide 24 – Signs at Intersections



Slide 25 – Stop signs

STOP sign – indicates What
STOP line – indicates Where



Slide 26 – Red Traffic Signals

Red Traffic Signals

Solid Red

Stop is required



Flashing Red

Stop, proceed only when clear



Red Arrow

Stop is required

Slide 27 – Yellow Traffic Signals

A flashing yellow left-turn arrow allows left turns and is used at an intersection with a dedicated left turn lane.

Yellow Traffic Signals

Steady Yellow

Warns a red will follow



Flashing Yellow

Caution



Flashing Yellow Arrow

Unprotected turn!
Yield to oncoming traffic and pedestrians. Proceed only when clear.

Slide 28 – Green Traffic Signals

Green Traffic Signals

Green Ball

Proceed (look LFR first)
Unprotected turn:
Yield to oncoming traffic and pedestrians before turning left



Green Arrows

Proceed without yielding
Protected turn:
(look LFR first)



Slide 29 – Yield to Pedestrians

MCA 61-8-504. Operators to exercise due care.

MCA 61-8-351. Meeting or passing school bus

- 1) Upon overtaking from either direction a school bus that has stopped on the highway or street to receive or discharge school children, a driver of a motor vehicle:

(a) shall stop the motor vehicle not less than approximately 15 feet before reaching the school bus when there is in operation on the bus a visual flashing red signal as specified in 61-9-402; and

(b) may not proceed until the children have entered the school bus or have alighted and reached the side of the highway or street and until the school bus ceases operation of its

Yield to Pedestrians



visual flashing red signal.
 (6) The driver of a motor vehicle upon a highway with separate roadways need not stop upon meeting or passing a school bus that is on a different roadway or when upon a controlled-access highway and the school bus is stopped in a loading zone that is a part of or adjacent to the highway and where pedestrians are not permitted to cross the roadway.

Slide 30 – Pedestrian Countdown Signals



Slides 31-33 – Questions/Answers

Slide 31

Why did the Subaru miss the red light?
 Where is the legal stop?
 What is the danger here?



Slide 32

Open and closed zones
 Crosswalk
 Don't change lanes in the intersection
 What is your following distance?



Slide 33

Who has the right of way?
 Find the signs and signals that guide drivers.



<p>Slide 34 – Traffic Light Tree</p> <p>Traffic Light Tree in London with 75 sets of lights at a roundabout.</p> <p>Created by French sculptor Pierre Vivant in 1998</p>	 <p>Montana State Education and Training 2.0  825 / 24</p>
<p>Slides 35-36 – Standards & Benchmarks</p> <p>Standards and Benchmarks 1-8: This is for your reference and not to be read to the class verbatim. Please review prior to the lesson so you are aware of what the student will be required to know at the end of the module.</p>	<p>Standards and Benchmarks</p> <ol style="list-style-type: none"> 1. Know and Follow Traffic <ol style="list-style-type: none"> 1.1. Know the law related to the Montana Driver's License. 1.2. Understand the law related to the Montana Driver's License and 1.3. understand, demonstrate, demonstrate and know the law related to the Montana Driver's License. 2. Recognize <ol style="list-style-type: none"> 2.1. recognize the importance of making safe and responsible decisions for making safe driving decisions. 2.2. demonstrate the ability to make appropriate decisions while operating a motor vehicle. 2.3. understand the importance of the safety of the highway transportation system and 2.4. identify possible causes and effects of unsafe driving. 3. Obey Traffic <ol style="list-style-type: none"> 3.1. know proper correct rules for operating a motor vehicle. 3.2. understand the importance of proper use of the operating a motor vehicle. 3.3. understand the law related to the operating a motor vehicle and 3.4. identify rules and regulations with respect to proper use of the. 4. Control Vehicle <ol style="list-style-type: none"> 4.1. understand, control, use and correct operation of a motor vehicle, and 4.2. identify possible causes and effects of unsafe driving. <p>Montana State Education and Training 2.0  825 / 24</p>

Updated 10/28/2015