The 2011 MMUTCD

December 3, 2012
MMUTCD Adoption Date

- For Michigan a new manual has to be in place by January 15, 2012
- Manual addresses:
  - Unique items in MVC
  - Unique items in Michigan
- Effective December 1, 2011
Old Compliance Dates

• Compliance dates are for those “Big Ticket” items

• 67 Phase-in Target Compliance Dates for Devices, includes:
  – Dates established by previous final rules (3)
  – Dates established in 2005 MMUTCD (52)
  – New compliance items in 2011 MMUTCD (12)
Items with No Specific Compliance Date

- New or reconstructed devices installed shall be in compliance with State MUTCD
- Federal-aid projects require devices to be in conformance to MUTCD
- Upgrade non-compliant devices as part of systematic upgrade
Compliance Option

Replacement of damaged, missing, or no longer serviceable non-compliant device:

Option for agencies to establish policies:

- replace with compliant device;

or

- replace in kind under some conditions.
New Compliance Dates

- Compliance dates are for those “Big Ticket” items

- 12 Phase-in Target Compliance Dates for Devices, includes:
  - Dates established by previous final rules (3)
  - Dates established in 2005 MMUTCD (1)
  - New compliance items in 2011 MMUTCD (8)
Overall
Paragraphs are numbered!

Guidance statements are italicized.
Metric values have been removed from the text, figures, and tables.

- Only English units are used in the text, tables, and figures of the MMUTCD.

New Appendix A2 includes the equivalent metric values for all English units used in the MMUTCD.
MMUTCD applies to private roads that are “open to public travel.

Toll roads and roads within shopping centers, airports, sports arenas, theme parks, and similar business or recreation facilities that are privately owned, but the public is allowed to travel without access restrictions.
Parking areas and their driving aisles are not subject to the MMUTCD, however.....
Part 1

General
Certain signs and other devices are not considered to be traffic control devices.
New purple color for lanes restricted to only vehicles with registered “electronic toll collection accounts”
Part 2

Signs
New Chapters and Revisions for Part 2

- Relocation of gates and barricades to Chapter 2B
- Relocation of object markers from Part 3 to Chapter 2C
- New Chapter 2F – Toll Road Signs
- New Chapter 2G – Preferential and Managed Lanes
- New Chapter 2H – General Information Signs
- New Chapter 2I – General Service Signs
- New Chapter 2L – Changeable Message Signs
New Sign Retroreflectivity
Compliance Dates

| June 13, 2014 | Identify and begin using method(s) for regulatory and warning signs |

Other signs are to be added to agency’s method as resources allow.
Maintaining Minimum Retroreflectivity

“Standard:
Public agencies or officials having jurisdiction shall use an assessment or management method that is designed to maintain sign retroreflectivity at or above the minimum levels in Table 2A-3”
Maintaining Minimum Retroreflectivity

All signs identified by an agency’s method as being below minimum values need to be replaced.

Replacement should be based on agency’s resources and relative priorities.
## MUTCD Table 2A-3

<table>
<thead>
<tr>
<th>Sign Color</th>
<th>Criteria</th>
<th>Sheeting Type (ASTM D4956)</th>
<th>Beaded</th>
<th>Prismatic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>White on Red</td>
<td>CR ≥3</td>
<td></td>
<td></td>
<td>35 / 7</td>
</tr>
<tr>
<td>Black on Orange or Yellow</td>
<td>Bold or Text ≥48”</td>
<td>x</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Fine or Text &lt;48”</td>
<td>x</td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>Black on White</td>
<td>—</td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>White on Green</td>
<td>Overhead</td>
<td>x / 7</td>
<td>x / 15</td>
<td>x / 25</td>
</tr>
<tr>
<td></td>
<td>Shoulder</td>
<td>x / 7</td>
<td></td>
<td>120 / 15</td>
</tr>
</tbody>
</table>
Sign Maintenance Methods

- Visual nighttime inspection
- Measured sign retroreflectivity
- Expected sign life
- Blanket replacement
- Control signs
- Any combination of above
- Other methods based on engineering studies
Lateral Offset

• Sign supports within the clear zone for roads with posted speed limit of 50 mph or higher shall be crashworthy (NCHRP Report 350) unless shielded with a longitudinal barrier or crash cushion

• Compliance date of August 15, 2015
Many New Symbols
Lettering for Place Names and Destinations

• Mixed-case lettering required for names of places, streets, and highways for guide signs
• Mixed-case lettering consists of an initial upper-case letter followed by lower-case letters
• Letter height is specified as the height of the initial upper-case letter
New Options for Sign Conspicuity Enhancement
Larger Sizes for STOP signs

- 36 inches for any STOP sign facing a multi-lane approach
- 36 inches for any multi-lane side road approach to a multi-lane road
- 36 inches for any side road approach to a multi-lane road with a speed limit of 45 mph or higher
The use of 2-WAY, 3-WAY, and 4-WAY plaques is prohibited.

ALL-WAY plaque remains as a “shall” if STOP signs are used on all approaches.
Signs mounted back-to-back with STOP or YIELD signs should stay within the edges.
New optional fish-hook arrows for use on lane-use control signs at roundabouts.
Divided Highways with Median Widths of 30 feet or More

One-Way signs on near right and far left corners are **required** rather than **recommended**

Far right One-Way signs are **optional**

Compliance date of December 31, 2019 for this and next 4 slides
Divided Highways with Median Widths of 30 feet or More

One-Way signs on near right and far left corners are required rather than recommended.

Far right One-Way signs are optional.
Divided Highways with Median Widths of Less than 30 feet

Either:
One-Way signs on near right and far left corners (far right One-Way signs are optional)
or
Keep Right signs in median noses.
Divided Highways with Median Widths of Less than 30 feet and Separated Left-turn Lanes

Either:
One-Way signs on near right and far left corners (far right One-Way signs are optional)

or
Keep Right signs in Median noses

Notes:
See Figure 2B-12 for examples of placing DO NOT ENTER and WRONG WAY signing.
See Figure 2B-15 if median is 30 feet or more in width.

Legend
- Direction of travel
* One Way signs are optional if Keep Right signs are installed
** Keep Right signs are optional if One Way signs are installed

Typical Mounting
Near Side and Far Side One-Way Signs Required on the Minor-Street Approaches at 4-way and T-intersections
Option for lower mounting height for Do Not Enter and Wrong Way signs on ramps

Minimum of 3 feet
New Regulatory Signs for Use at Roundabouts

Roundabout Directional Arrow signs (on central island)

Roundabout Circulation sign (with YIELD sign at mini-roundabouts)
New Pay for Parking and Parking Pay Station signs
New Symbolic Design for the R10-15 sign
Barricades and Gates

- Barricades Standards and Guidance relocated from Part 3
- Colors of barricades for non-TTC use shall be retroreflective white and red
- New section on Gates for all traffic uses
- Red/white stripes on gates shall be vertical rather than diagonal
Some word message signs are deleted

Also – STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD
36” x 36” Minimum Size for Multi-lane Conventional Roads
Fluorescent Yellow-Green Color

**Required** for school and school bus signs

**Optional** for pedestrian, bike, and playground signs
### Horizontal Alignment Warning Signs

#### Table 2C-5. Horizontal Alignment Sign Selection

<table>
<thead>
<tr>
<th>Type of Horizontal Alignment Sign</th>
<th>Difference Between Speed Limit and Advisory Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5 mph</td>
</tr>
<tr>
<td>Turn (W1-1), Curve (W1-2), Reverse Turn (W1-3), Reverse Curve (W1-4), Winding Road (W1-5), and</td>
<td>Recommended</td>
</tr>
<tr>
<td>Combination Horizontal Alignment/Intersection (W10-1) (see Section 2C.07 to determine which sign</td>
<td></td>
</tr>
<tr>
<td>to use)</td>
<td></td>
</tr>
<tr>
<td>Advisory Speed Plaque (W13-1P)</td>
<td>Recommended</td>
</tr>
<tr>
<td>Chevrons (W1-8) and/or One Direction Large Arrow (W1-6)</td>
<td>Optional</td>
</tr>
<tr>
<td>Exit Speed (W13-2) and Ramp Speed (W13-3) on exit ramp</td>
<td>Optional</td>
</tr>
</tbody>
</table>

Freeways, expressways, and functionally classified arterials and collectors over 1,000 AADT
New Criteria for the Determination of Advisory Speeds

Support: Among the established engineering practices that are appropriate for the determination of the recommended advisory speed for a horizontal curve are the following:

A. An accelerometer that provides a direct determination of side friction factors
B. A design speed equation
C. A traditional ball-bank indicator using the following criteria:
   
   16 degrees of ball-bank for speeds of 20 mph or less
   14 degrees of ball-bank for speeds of 25 to 30 mph
   12 degrees of ball-bank for speeds of 35 mph and higher
## Chevron Signs Spacing Table

<table>
<thead>
<tr>
<th>Advisory Speed (mph)</th>
<th>Curve Radius (feet)</th>
<th>Sign Spacing (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 or less</td>
<td>Less than 200</td>
<td>40</td>
</tr>
<tr>
<td>20 to 30</td>
<td>200 to 400</td>
<td>80</td>
</tr>
<tr>
<td>35 to 45</td>
<td>401 to 700</td>
<td>120</td>
</tr>
<tr>
<td>50 to 60</td>
<td>701 to 1,250</td>
<td>160</td>
</tr>
<tr>
<td>More than 60</td>
<td>More than 1,250</td>
<td>200</td>
</tr>
</tbody>
</table>
Speed Limit Reductions of more than 10 mph

Reduced Speed Limit Ahead sign recommended
New Pedestrian/Bicycle Crossing Sign
New Symbol Signs to Warn of Possible Presence of Large Animals
Plaques for use when STOP signs control all but one approach to the intersection
Share the Road plaque cannot be used alone; can ONLY be used to supplement another sign.
Object Markers for Approach Ends of Guardrails

- Where Type 3 object markers are applied to the approach ends of guardrail and other roadside appurtenances, sheeting without a substrate shall be directly affixed to the approach end of the guardrail in a rectangular shape conforming to the size of the approach end of the guardrail, with alternating black and retroreflective yellow stripes sloping downward at an angle of 45 degrees toward the side of the obstruction on which traffic is to pass.
Option to use all upper-case letters for place names and street names is deleted
Guide Signs should have no more than 3 lines of Destination Info
Provisions for use of Pictographs on Guide Signs

Exceeds maximum size, not official seal
New Guide Signs for Circular Intersections

- Amity
- Twin Falls
- Century Dr
- 14th St
- NEXT ROUNDBOUT
- Front Ave
- NORTH 301
- WEST 220 Forsberg
- EAST 220 Burke
Only alternatives to green Street Name sign background color are blue, brown, or white*

* White background with black legend only
LEFT plaques required for numbered and non-numbered exits to the left

Compliance date of December 31, 2014

Plaques for Left-Hand Exits

LEFT
EXIT 17

NORTH
Frederick
2 MILES

EXIT ONLY

LEFT

Olden Ave
Community Wayfinding Guide Signs

- Use on freeways, expressways, ramps not allowed
- Not for primary destinations
- Position of arrows, order and number of destinations
- Guidance on location of ped wayfinding

Enhancement Markers

Color Coding

Great Falls Historic District
Overlook Park Visitor Center
Rogers Locomotive
City Hall

Renwick Districts

- Collegetown
- South Hill
- Lakefront

South Hill
Lakefront
Overhead Arrow-per-Lane Guide Signs

- Required at new or reconstructed option lane locations (major interchanges, splits)
- Provision for conversion from diagrammatic (interim gore sign location)
Provisions for Changeable Message Signs

- Legend height
- Color
- Phases per cycle
- Display time
Memorial or Dedication Signing

- John D Basilone
  MEMORIAL BRIDGE

- DEDICATED TO
  Gov Alfred E Driscoll

- One sign per direction
- No extraneous information or decorative elements
Part 3

Markings
Colors

- **Purple Markings** – only as optional supplement to lane lines or edge lines of toll plaza approach lanes that are restricted to vehicles with registered ETC accounts

- **Blue RPMs** – Not a TCD
  - Removed from MUTCD, except for new Section 3B.11 Support statement describing their use by emergency personnel in locating fire hydrants
Centerlines

A single yellow center line marking on a two-way roadway is specifically prohibited
White Lane Line Markings

Dotted (not broken) lane lines shall be used for non-continuing lanes:

- Lane drops (wide dotted)
- Auxiliary lanes (wide dotted)
- Acceleration lanes (normal width dotted)
- Deceleration lanes (normal width dotted)

Applies on freeways, expressways, and conventional roads
Lane Drops on Conventional Roads
Auxiliary Lanes between Intersections

Now to be wide dotted lane line
Revised Guidance for Provision of Marked Crosswalks

New marked crosswalks alone, without other substantial measures to reduce speeds, shorten crossing distance, enhance driver awareness of crossing, and/or provide active warning of ped presence should not be installed across uncontrolled roadways with:

- > 4 travel lanes,
- Speed limit > 40 mph, and
- ADT > 12,000 without raised median or ped refuge, or > 15,000 with raised median or ped refuge
Speed Reduction Markings added as an Option
Pavement Markings at Roundabouts

Includes optional fish-hook lane-use arrows for approaches to roundabouts

Legend

* Optional

- Splitter island mountable or painted yellow
- Central island might also be mountable or painted yellow

Splitter island formed by two sets of double yellow lines

Match arrow(s) with desired lane use configuration

Optional for left-most lane
Delineators should be used with guardrails and other barriers
Delineators on the left-hand side of a two-way roadway shall be white.

Shall match color of edge line.
Rumble Stripes

An edge line shall not be used in addition to a rumble stripe that is located along a shoulder.

Figure 3J-1. Examples of Longitudinal Rumble Strip Markings

A - Edge line not on rumble strip

B - Edge line on rumble strip

C - Center line on rumble strip

Note: Edge line may be located alongside the rumble strip (Option A) or on the rumble strip (Option B). Center line markings may also be located on a center line rumble strip (Option C).

Legend

→ Direction of travel

Rumble strip
Part 4

Highway Traffic Signals
New Guidance in Warrant 3 (Peak Hour)

• Signals installed under Warrant 3 (peak hour):
  – should be traffic-actuated, and
  – may be operated in flashing mode during off-peak hours
Revisions to Warrant 4 (Pedestrian Volume)

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume

TOTAL OF ALL PEDESTRIANS CROSSING MAJOR STREET—PEDESTRIANS PER HOUR (PPH)

MAJOR STREET—TOTAL OF BOTH APPROACHES—VEHICLES PER HOUR (VPH)

*Note: 107 pph applies as the lower threshold volume.
New Warrant 9 for Intersections near Grade Crossings

Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)

* 25 vph applies as the lower threshold volume
** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate
Flashing Yellow Arrow for Permissive Turns
Recommended number, location, and design of signal faces for approaches with speeds $\geq 45$ mph:

- Face per thru lane, overhead, far side, with backplates

1 or more supplemental faces
Recommended minimum number of thru signal faces on approaches with speeds $\geq 45$ mph:

<table>
<thead>
<tr>
<th>Number of Through Lanes on Approach</th>
<th>Total Number of Primary Through Signal Faces for Approach*</th>
<th>Minimum Number of Overhead-Mounted Primary Through Signal Faces for Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>2**</td>
</tr>
<tr>
<td>4 or more</td>
<td>4 or more</td>
<td>3**</td>
</tr>
</tbody>
</table>

**NOTES:**

* A minimum of two through signal faces is always required (See Section 4D.11). These recommended numbers of through signal faces may be exceeded. Also, see cone of vision requirements otherwise indicated in Section 4D.13.

** If practical, all of the recommended number of primary through signal faces should be located overhead.
Same provisions should also be considered for speeds of less than 45 mph.
Protected-only mode left-turn faces must use red arrow, not circular red

• Applies to left-turn signals but not to right-turn signals
Yellow Change Intervals and Red Clearance Intervals

- Durations shall be determined using engineering practices
- Use of red clearance – changed from option to guidance, when indicated by application of engineering practices

Compliance date of December 31, 2014 when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first
Back-up power should be provided for signals with RR preemption.
Pedestrian Clearance Time

Ped Change Interval (flashing DW):
- shall not extend into the red clearance interval - shall be followed by **min. 3 sec. buffer interval**

Compliance date of December 31, 2014 when timing adjustments are made to the individual intersection and/or corridor, whichever occurs first
Slower walking speed for calculating pedestrian clearance time ( Guidance)

- Ped. Clearance Time based on 3.5 feet / sec

[Exception allows 4.0 ft / sec if extended button press or passive ped detection allows slower peds to request additional crossing time]

Sum of Walk time + Ped. Clearance Time based on 3.0 feet per second for distance from ped detector to far side
Countdown Pedestrian Displays

Required for all ped signals unless ped change interval is 7 seconds or less.

No specific compliance date for retrofitting existing ped signals (can remain w/o countdown until ped heads replaced).
New guidance and figures for locations of pedestrian pushbuttons for a variety of conditions
Positioning of pedestrian pushbuttons and legends on pushbutton signs shall clearly indicate which crosswalk signal is activated by which pushbutton.
HAWK

High-intensity Activated crossWalk

- Mid-block crossing
- Protected pedestrian crossing
- When not in use will go dark
Signal Operations

Drivers
see this:
Proceed through Intersection

Pedestrians
see this:
Push the Button to Cross
<table>
<thead>
<tr>
<th>Drivers</th>
<th>Pedestrians</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>see this:</strong></td>
<td><strong>see this:</strong></td>
</tr>
<tr>
<td><img src="image" alt="Signal Image" /></td>
<td><img src="image" alt="Hand Image" /></td>
</tr>
<tr>
<td><strong>Slow Down</strong></td>
<td><strong>Wait</strong></td>
</tr>
<tr>
<td>(Pedestrian has activated the push button)</td>
<td></td>
</tr>
</tbody>
</table>
Signal Operations

Drivers
- See this:
- Prepare to Stop

Pedestrians
- See this:
- Continue to Wait
Signal Operations

**Drivers**
- **see this:**
  - STOP!
  - (Pedestrian in Crosswalk)

**Pedestrians**
- **see this:**
  - Start Crossing
Signal Operations

Drivers

See this:

Proceed if Clear

Pedestrians

See this:

Countdown Signal
(Continue Crossing)
Signal Operations

Drivers

see this:

Continue Driving

Pedestrians

see this:

STOP!
Push the Button to Cross
Intersection Control Beacons using Two Red Lenses

Horizontally aligned – flash simultaneously

Vertically aligned – flash alternately
Part 5
Low-Volume Roads
Part 5 is not Applicable on Neighborhood Residential Streets

Part 5 applies only outside of built-up areas of cities, towns, and communities
Typical sizes for signs and plaques on low-volume roads are the same sizes as for conventional roads.

Table 5A-1. Sign and Plaque Sizes on Low-Volume Roads (Sheet 1 of 2)

<table>
<thead>
<tr>
<th>Sign or Plaque</th>
<th>Sign Designation</th>
<th>Section</th>
<th>Sign Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Typical</td>
</tr>
<tr>
<td>Stop</td>
<td>R1-1</td>
<td>5B.02</td>
<td>30 x 30</td>
</tr>
<tr>
<td>Yield</td>
<td>R1-2</td>
<td>5B.02</td>
<td>30 x 30 x 30</td>
</tr>
<tr>
<td>Speed Limit (English)</td>
<td>R2-1</td>
<td>5B.03</td>
<td>24 x 30</td>
</tr>
<tr>
<td>Do Not Pass</td>
<td>R4-1</td>
<td>5B.04</td>
<td>24 x 30</td>
</tr>
<tr>
<td>Pass With Care</td>
<td>R4-2</td>
<td>5B.04</td>
<td>24 x 30</td>
</tr>
<tr>
<td>Keep Right</td>
<td>R4-7</td>
<td>5B.04</td>
<td>24 x 30</td>
</tr>
</tbody>
</table>

Minimum | Oversized
---      | ---
---      | 36 x 36
---      | 36 x 36 x 36
---      | 36 x 48
---      | 36 x 48
---      | 36 x 48
---      | 36 x 48
Part 6
Temporary Traffic Control
Minimum length for one-lane, two-way traffic taper added to Table 6C-3

<table>
<thead>
<tr>
<th>Type of Taper</th>
<th>Taper Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merging Taper</td>
<td>at least L</td>
</tr>
<tr>
<td>Shifting Taper</td>
<td>at least 0.5 L</td>
</tr>
<tr>
<td>Shoulder Taper</td>
<td>at least 0.33 L</td>
</tr>
<tr>
<td>One-Lane, Two-Way Traffic Taper</td>
<td>50 feet minimum</td>
</tr>
<tr>
<td></td>
<td>100 feet maximum</td>
</tr>
<tr>
<td>Downstream Taper</td>
<td>100 feet per lane</td>
</tr>
</tbody>
</table>
High-Visibility Safety Apparel

Required for all workers within the public right of way

Applies to all roads, not just those on the Federal-aid system

Option for law enforcement and first responders to use new ANSI “public safety vests”

Firefighters and law enforcement are exempted from the requirement under certain conditions

Compliance date of December 31, 2011
Automated Flagger Assistance Device (AFAD)

Type 1: STOP/SLOW paddle AFAD
Type 2: Red/yellow lens AFAD
Clarified OPTION for self-regulating traffic movement through a one-lane, 2-way constriction

- If work space is short (adequate sight distance)
- If on a low-volume street
Center Lane Closed Ahead symbol sign has been removed from the MUTCD
New Alternating Diamond Display to indicate Caution on an Arrow Board
Temporary Markings

- Delineate path through the TTC zone when the permanent markings are either removed or obliterated during the work activities.
- Should not be left in place longer than 14 days
- Some allowable exceptions to normal longitudinal markings requirements
Preemption of Temporary Signals in TTC Zones
Black and orange are acceptable colors for transverse rumble strips in TTC zones.
New Plaques for School Area Signing

Existing school area signs

New plaque designs
New Symbol Sign to replace the S3-1 word message sign
END SCHOOL SPEED LIMIT or END SCHOOL ZONE Sign
School Crossing Guard Apparel

Adult guards and law enforcement shall use ANSI Class 2 safety apparel

Compliance date of December 31, 2011
Part 8
Railroad Grade Crossings
Stripes on gate arms shall be vertical.
Grade crossings within or in close proximity to circular intersections

• Engineering study required to evaluate potential queuing

• If queues impact crossing, provisions shall be made to clear highway traffic from the crossing before train arrivals
Highway-Rail Grade Crossing Sign

- Retroreflective white material on crossbuck post and sign:
  - within 2 ft above the edge of roadway on the front and back.
  - back of each blade for the full length.

Compliance date of December 31, 2019
YIELD or STOP Signs Required at Passive Highway-Rail Grade Crossings

Compliance date of December 31, 2019
Part 9

Bicycle Facilities
New Bicycle Destination Guide Signs

- Library 3
- Beach 15
- Kingston 10
- TO Downtown

D1-3c  D11-1c
New Bicycle Route sign that provides a place for a pictograph

M1-8

13

M1-8a

44

Unique pictograph and/or words for any jurisdiction
Revised Design of the U.S. Bicycle Route Sign

M1-9
New Shared Lane Pavement Marking
2005 vs 2011
Michigan Differences

• Updated MVC references
• History of MMUTCD added
• May Be Icy sign replaced with Bridge Ices Before Road sign
• Advance Street Name sign shall provide advance information
2005 vs 2011
Michigan Differences

- Traffic Regulator sign sequence – Be Prepared to Stop sign optional
- Worker Symbol sign back
- School Crossing sign now permitted as signalized locations
- School Bus Stop Ahead sign back
- Railroad pavement markings match federal MUTCD
Please take note!

• The Effective date of the MMUTCD is December 1, 2011.

• The Michigan Manual on Uniform Traffic Control Devices is the document for all Michigan road agencies to follow.
Where to Find the MMUTCD

• Download the 2011 MMUTCD

• Order the 2011 MMUTCD
  – 1-517-322-1676
  – #60 MMUTCD - $143.99
  – #61 Part 6 - free