3-2-1 Longline Marking March 2019

GENERAL

The purpose of this policy is to provide specific guidance for the uniform application of long line markings on State Highways under DOT jurisdiction. The WISMUTCD Section 3B contains further guidance on longline markings.

Centerline Markings

Centerline markings **shall** be a 4" wide yellow line. Dashed lines **shall** be 12.5' long with a 37.5' gap.

Centerlines markings **shall** be marked on:

- All highways under DOT jurisdiction
- Through all intersections with local roads on two-lane state highways.
- On undivided multilane highway with a double yellow line

Centerline markings **shall not** be marked through:

- Intersections where the state highway is more than two lanes
- Intersections where Interstate, US, or State Highways intersect
- Signalized intersections
- All way stop
- Intersections with opposing left turn lanes.
- Stop lines or marked crosswalks.

Further information on centerline markings are located in Section 3B.01 of the WISMUTCD.

Edge line Markings

The WISMUTCD Section 3B.06, describes edge line markings in more detail. Edge line markings **shall** be a 4" white line on the edge of the roadway except the left most edge line on a divided highway **shall** be yellow.

Edge line markings **shall:**

- Continue through all driveways (commercial or private) except major commercial driveways (big box stores, etc.) with a full width turn lane.
- Be used on freeways and expressways
- Be used on rural arterial roads with a traveling width of at least 20 feet and an ADT > 6,000 vehicles per day
- .

Edge line markings **shall not** continue through**:**

- Intersecting roadways with more than two lanes
- Intersections where Interstate, US, or State Highways intersect
- Intersections with opposing left turn lanes
- Signalized intersections
- Stop controlled intersections
- Commercial driveways meeting intersection design standards with full width paved turn lanes.

Edge lines *should* be used in urban areas or semi urban areas that do not have curb and gutter as required in WISMUTCD Section 3B.07. Edge lines *should* be used in urban areas where a single paved width is 16 ft or greater.

Edge Lines Adjacent To Urban Curb & Gutter Sections

POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 mph	No	Optional
35 mph or 40 mph	Optional	Recommended
≥ 45 mph	Recommended	Required

Lane Line Markings

Lane lines **shall** be marked to delineate traffic traveling in the same direction. Lane lines **shall** be a 4" wide white line that is 12.5' long with a 37.5' gap between lines. Lane lines **shall** be marked on all state highways under DOT

jurisdiction. Lane lines **shall** be marked through minor intersections and major T-intersections on the state highways.

Dotted Lane Lines

According to the WISMUTCD Section 3B.04, a dotted line (3' line, 9' gap) *maybe* used as a substitute lane line. This line **shall** be 4" wide and **shall** be used to separate a through lane that continues beyond an intersection or interchange from an adjacent lane under the following conditions:

- A deceleration or acceleration lane
- A through lane that becomes a mandatory turn or exit lane (SDD 15C31 sheet b)
- Auxiliary lane
- Tapered Exit Ramps (SDD 15C31 sheet a)
- Parallel Exit (Deceleration) Ramps (SDD 15C 31 sheet b)

Dotted Extension Lines

Dotted extensions **shall** be added to provide guidance past exits or *may* be added through intersections on curves where the edge of the traveled lane is unclear. A dotted extension line *may* be continued through an uncontrolled movement of a state highway intersection with another highway. If these lines are used through an intersection they **shall** be 2' lines with a 6' gap and the same width as the line that is being extended see in SDD 15C8 sheet c.

Channelizing Lines

Channelizing lines **shall** be white and 8" in width. Channelizing lines **shall** be used in the following locations:

- In advance of an exit ramps or intersections to distinguish a lane. (3 foot line with a 9 foot gap) SDD 15C8-17 sheet eb.
- In advance of freeway route splits with dedicated lanes.
- To separate a through lane that continues beyond an intersection from an adjacent auxiliary lane between two intersections SDD 15C8 sheet b
- Exit gore markings **shall** extend fifty feet past the unpaved neutral area and 300 feet to begin the gore line, as shown on SDD 15C31 sheet b.
- Entrance gore marking **shall** follow SDD 15C31 sheet 3

Channelizing markings **shall not** be marked through:

- Signalized intersections.
- Intersections at a 4 way stop.
- Stop lines or marked crosswalks.

Bike Lane

If bike lanes are marked, they are typically at least 5 ft wide, and a minimum of 4 feet from a longitudinal joint. Use a 5 foot width at 45 mph or higher. Refer to SDD 15C29-6a in the FDM. The words "BIKE LANE" or the bike symbol *maybe* used to delineate the bike lane. Signing *may* also be used to supplement the marking. The DT2500 form **shall** be completed to permit locals to install/maintain bike lanes and the DT2137 form **shall** be completed to permit the locals to install/maintain Shared Lane Markings.

The usage of green pavement marking for bike lanes or bike boxes **shall not** be allowed on state maintained roadways.

3-2-2 No-Passing Zone Standards February 2017

GENERAL

No-passing zones are marked and signed on state maintained highways to indicate where a driver cannot safely complete a passing maneuver under normal light and weather conditions. In addition to the zones required by inadequate sight distance, certain other conditions warrant short zones or no-passing zone extensions which are marked by no-passing barrier lines. Although sufficient sight distance *may* be present at these locations, the passing operation is not appropriate under state law or for safety reasons as documented in an engineering study.

Unmarked zones (where passing is allowed) allow the driver to make a decision based on rules of the road and circumstances, such as oncoming traffic, reduced visibility due to fog, low light, rain or smoke, turning traffic, or vehicles entering from side roads or driveways. **No-passing zones *should not* be marked to eliminate all possible conflicts.**

Wisconsin Statute 346.10 allows passing another vehicle in a rural (non-business regional, non-residential regional) intersection, unless the intersection is designated by signals, stop signs, yield signs, or warning signs. Routinely marking zones through minor intersections and/or driveways would significantly reduce legal passing areas available to the driver, increasing non-compliance and unsafe passing in less favorable locations where adequate sight distance *may not* be available.

NO-PASSING ZONE CRITERIA

No-passing zones **shall** be marked at all locations on the State Highway system that have insufficient sight distance for a vehicle to safely complete a passing maneuver under normal light and weather conditions. **The establishment of these zones shall be based exclusively on the sight distance required for the posted speed and the highway characteristics.**

The following criteria **shall** be used to mark no-passing zones:

SIGHT DISTANCE

Each Region has either a No-Passing Zone Sight Distance Map or spreadsheet listing the sight distance criteria on The State Trunk Highways. Either is available from your Regional Traffic Section. Typical sight distances are shown in the following table, but other criteria such as ADT or geometrics *may* change or alter those requirements.

Posted Speed Limit	No-Passing Zone Sight Distance		Minimum Distance Between Zones	
(MPH)	(mile)	(feet)	(mile)	(feet)
25-30	0.10	528	0.10	528
35-40	0.13	686	0.10	528
45-50	0.16	845	0.13	686
55	0.21*	1,110*	0.15	792

* When authorized by the designated Regional Signing/Marking Engineer, the 55 MPH No-Passing Zone, sight distance ***may* be increased from 0.21 to 0.26 miles** on certain higher volume highway segments, due to higher frequency of crashes and/or a demonstrated history of excessive speeding above the posted limit.

The specific characteristics and factors leading to the increase or decrease of the No-Passing Zone sight distance from the DOT 55 MPH standard of 0.21 mile, *should* be documented in the Region.

For 55 mph posted speed roadways, during the project design process, the designer **shall** contact the Region Signing/Marking Engineer to determine the correct No Passing Zone Sight Distance to be used. STSP 648-005 **shall** be inserted into the Special Provisions with the correct No Passing Zone Sight Distance for 55 mph posted speed roadways.

REQUIRED EQUIPMENT

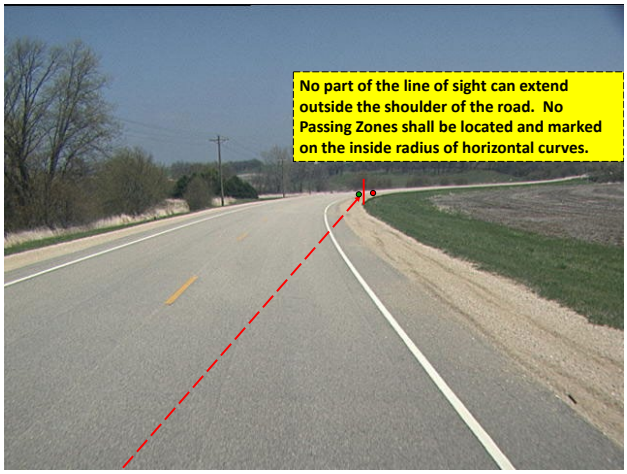
1. Use two vehicles that provide a target on the lead vehicle 42 inches above the roadway. The observer's eye in the trailing vehicle **shall** be 42 inches above the roadway. Whatever type of target is used, it **shall** have a sharp cutoff when it disappears and appears.
2. A Distance Measuring Instrument (DMI) **shall** be used and **shall** have an accuracy of at least 10 feet per mile. The DMI **shall** decrease the measured distance when the vehicle backs up.
3. Two-Way communication equipment is required for the two vehicles.
4. At a minimum, a full-width flashing yellow light bar with 360-degree visibility **shall** be used. Additional signs and flashing lights on the vehicles are recommended.

PROCEDURE FOR LOCATING AND MARKING NO PASSING ZONES

1. LOCATING NO PASSING ZONES
   - Prior to beginning work on locating no passing zones, the project engineer or Region Signing/Marking Engineer **shall** be contacted to determine if there are any special no-passing zones to mark under the contract.
   - The No Passing Zone sight distance shown in the table in part B **shall** be followed.
   - The termini of no-passing zones **shall** be established to an accuracy of +/- 50 feet (0.01 mile).

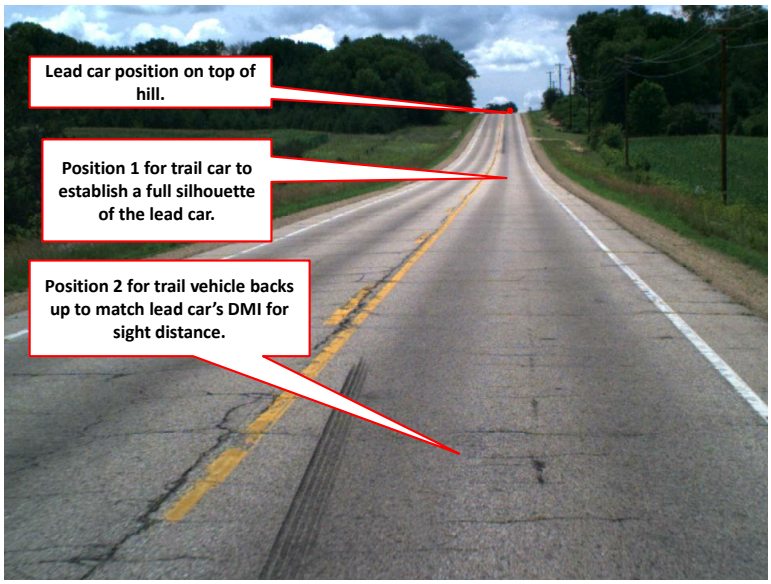
- When the distance between two successive no-passing zones is less than the minimum distance shown in the table in part B, the two zones **shall** be connected.
- For roadways with speed limit changes, the proper no-passing zone sight distance in the table in part B **shall** be maintained. For locations where the posted speed limit is increasing, when the lead vehicle reaches the increased speed sign, the trail vehicle would back up until the appropriate no-passing zone sight distance is achieved. For locations where the posted speed limit is decreasing, once the trail vehicle reaches the first decreased speed regulatory sign, the lead vehicle would back up until the appropriate no-passing zone sight distance is achieved.
- On horizontal curves, no part of the line of sight **shall** extend outside the shoulder (see Figure 1). No passing zones **shall** be located and marked on the inside radius of horizontal curves. If the horizontal curve requires a No Passing Zone, the starts and ends of the zones **shall** be recorded in the cardinal direction.

Figure 1. Horizontal Curve



- On vertical curves, whenever the target light disappears from sight, the crew **shall** check for blind spots. For a crest vertical curve, if the target light on the lead vehicle goes out of sight, the trail vehicle parks at the base of the hill. The lead vehicle **shall** back up to reveal a full silhouette of the rear of the car (from the bottom of the bumper up). Once the trail vehicle sees the full silhouette of the lead vehicle, the trail vehicle **shall** back up to establish the sight distance between the 2 vehicles before marking the roadway (see Figure 2).

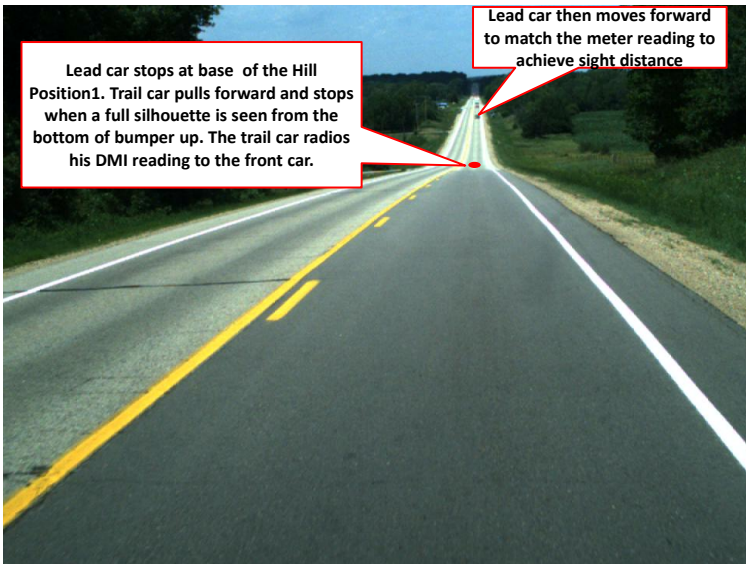
Figure 2. Crest Vertical Curve



- For sag vertical curves, if the target on the lead vehicle goes out, the lead vehicle **shall** stop at the base of the hill or in the sag. The trail vehicle **shall** pull forward until they see a full silhouette of the lead vehicle. Once the trail vehicle sees the full silhouette of the lead vehicle, the lead vehicle **shall** pull

forward to establish the sight distance between the 2 vehicles before marking the roadway (see Figure 3).

Figure 3. Sag Vertical Curve



- If the no passing zone is less than 500 feet in length, the zone **shall** be extended to 500 feet by lengthening the zone at its beginning in each traffic direction.
- The correctness of no-passing zones leading into and out of the project limits **shall** be checked. Ensure that the minimum distance between zones and the sight distance are checked.

MARKING MATERIAL

- The beginning and end of all no-passing zones **shall** be marked on the roadway by the marking of T's and dots with white spray paint (for asphalt) and black spray paint (for concrete).
- T's **shall** be 12" X 12" and 2" stroke. Dots **shall** be 3" - 4" in diameter.
- The paint material used to mark the road **shall** be durable enough to be readily visible for one year after application.

RECORDING OF NO PASSING ZONES

The WisDOT Standard No Passing Zone Log (form DT2124) **shall** be used to record the No Passing Zones (see Figure 4). Include the following data on the No Passing Zone Log Sheets:

- Date of survey on each sheet.
- County and Route on each sheet.
- The cardinal direction of travel (for east west roads, record in the easterly direction, for north south roads, record in the northerly direction).
- All starts and ends are logged in miles to the nearest 1/100th of a mile.
- The beginning and ending of each no-passing zone line in both directions.
- The sight distance and speed criteria for each zone.
- The location of landmarks (intersecting U.S., State and County trunk highways, bypass lanes, truck climbing lanes, passing lanes, county boundary lines, railroad crossings, starts and ends of bridges and regional boundaries).

NO-PASSING BARRIER LINE CRITERIA

1. No-passing barrier lines, 500 feet in length, **shall** be marked on an undivided STH approach in the following intersection situations:
   - The STH traffic is controlled by a stop sign.
   - The intersection with the STH is controlled by a signal.
   - The intersection with the STH is controlled by a roundabout.
   - At a T-intersection with a standard bypass lane that allows vehicles proceeding straight to pass to the right of a left turning vehicle without leaving the paved portion of the highway as per SDD 15C8-b, a 500-foot barrier line **shall** be installed prior to the start of the bypass taper.
2. A no-passing barrier line **shall** be marked in the following non-intersection situations:

- In advance of a divided highway. The marking configuration **shall** extend a barrier line 500 feet in advance of the island or median nose so passing is prohibited entering into the divided highway. This is illustrated on the Standard Detail Drawing titled "Signing and Marking For Two Lane to Four Lane Divided Transitions", located in the Facilities Development Manual. (SDD 15C21)
- In advance of a painted median island. The marking configuration **shall** extend a barrier line 500 feet in advance of the separation of the double yellow center line. This is illustrated on the Standard Detail Drawing titled "Median Island Marking", located in the Facilities Development Manual. (SDD 15C18)
- Bridges having a width less than 24 feet. The marking **shall** include a 500 foot barrier in advance of the actual structure as shown on the Standard Detail Drawing titled “Traffic Control Devices for Two-Lane Bridges”, located in the Facilities Development Manual. (SDD 15C6)
- Railroad grade crossings. The barrier line **shall** be placed 500 feet prior to each approach (unless markings are not required, as provided in the WISMUTCD). The configuration of the marking is shown on the Standard Detail Drawing titled “Pavement Marking Details for Railroad-Highway Grade Crossings” and located in the Facilities Development Manual. (SDD 15C9)
- Passing Lanes. The pavement marking configuration **shall** extend a barrier line 500 feet in advance of the beginning of the taper. This is illustrated on the SDD 15C8-c and SDD 15C8-d, “Pavement Marking (Climbing Lane & Passing Lane)”, located in the Facilities Development Manual. A bypass lane for an intersection is **not** considered a passing lane under this guideline.
- Truck Climbing Lanes. The pavement marking configuration **shall** extend a barrier line 500 feet in advance of the beginning of the taper. This is illustrated on the SDD 15C8-c and SDD 15C8-d, “Pavement Marking (Climbing Lane & Passing Lane)”, located in the Facilities Development Manual.
- Undivided 4 lane roadways. Any stretch of roadway with this configuration **shall** have the opposing lanes designated by a barrier line for its entire length and **shall** have barrier lines of 500 feet in length on the approaches to this section.

SPECIAL NO PASSING BARRIER LINES

No-passing barrier lines **shall** be marked with the approval of the designated Regional Signing/Marking Engineer in the following situations. When marked, they *should* be documented in the Region.

- At any intersection when justified by an engineering study. Appropriate reasons include a crash history related to passing maneuvers or demonstrated operational problems. The 500-foot barrier line would end at the near edge line of intersecting road and *may* be placed in only one direction based on operational need. This is illustrated on the SDD 15C8-13b, “Pavement Marking (Intersections)”, located in the Facilities Development Manual.
- In low speed urban areas, double yellow barrier lines *may* be placed when justified by an engineering study. Criteria for the engineering study include curb and gutter, reduced speed, parking allowed, poor stopping sight distance, closely spaced driveways or intersections, and high pedestrian volumes. The double yellow lines *should* be installed from the start of the curb and gutter to the end of curb and gutter through the urban area. When urban double yellow lines are used, 500-foot barrier lines **shall** be placed on the approaches to this special layout, unless a longer no-passing zone takes precedence.
- At a T-intersection with roadway pavement that allows vehicles proceeding ahead to legally pass to the right of a left turning vehicle without leaving the paved portion of the roadway, a 500-foot barrier line prior to the start of the bypass taper will be optional based on engineering judgment.

MARKING NO-PASSING BARRIER LINES

Barrier lines, as designated above, **shall** have a minimum length of 500 feet.

On State Trunk Highway approaches with stop or signal control, the barrier line would end at the stop line, theoretical stopping point or marked crosswalk. Each approach on the State Trunk Highway *should* be considered separately.

Barrier lines **shall** be connected into adjacent no-passing zones when there is less than minimum distance between zones, as described in the NO-PASSING ZONE CRITERIA section of this policy.

Where allowable barrier lines are justified, the traffic engineer **shall** give the crew locating no-passing zones specific directions as to where barrier lines are to be placed.

SIGNING

A No-Passing Zone pennant sign (W14-3) **shall** be installed as required in TEOpS 2-3-38, supplementing zones established under this guideline. This sign **shall** be placed no more than 50 feet from the start of the no-passing barrier line unless it's impossible due to location on a bridge deck or other exception.

Sign quantities for moving the existing W14-3 sign **shall** be paid for separately and listed in the Permanent Signing Miscellaneous Quantities Sheet in the plan. If moved, the sign location **shall** be based on placement of the beginning of the revised no passing zone.

3-2-3 Special Marking — March 2019

GENERAL

Special pavement markings consist of arrows, symbols, words, stop lines, crosswalks, diagonals, and aerial/vascar enforcement markings. These markings *may* be used to supplement signing. When used, they **shall** conform to the requirements in Section 3B of the WISMUTCD and the following guidelines.

POLICY

All special markings **shall** be white and reflective.

Arrows

In general, arrows are used to supplement signing. There are 3 main types of arrows that WisDOT uses:

1. *Lane Control Arrows*
   - To supplement signing for complicated lane assignments and turn lanes. For mandatory turn lanes, the installation of arrows are required, per SDD 15C8 sheetb
2. *Wrong Way Arrows (Type 4)*
   - On any freeway off-ramp with high crash rates or unusual or poor geometrics.
   - Intersections or ramps with demonstrated problems of wrong way driving.
3. Lane Drop Arrows (Type 5)
   - On any lane drop with high crash rates.

Use SDD 15C7 sheet c and d for the size and shapes of these markings.

Words

Words currently allowed by WisDOT can be found on SDD 15C7 sheets a and b All words *should* be used at a site with a documented safety problem and discussed with the regional traffic engineer.

- The word, "ONLY", *may* only be used with singular Type 1 or Type 2 lane use arrows. The word, "ONLY", **shall not** be used in a two-way left turn lane.
- The word, "SCHOOL", either single or dual lane marking, **shall** only be used when one of the following criteria applies:
  - In advance of a marked crosswalk, which is typically monitored by a school crossing guard.
  - At a mid-block or uncontrolled intersection. The requestor **shall** be responsible for maintenance of the "SCHOOL" marking in combination with the crosswalk marking. This **shall** be documented on the application/permit form, DT2136 and the crosswalks policy under the "Type of Crosswalk Marking, Other". The required detail **shall** comply with SDD 15C7.
  - Should not be installed in a parking lane.
- "BIKE LANE" **shall** only be used with a signed bike lane.
- "YIELD" **shall** only be used at roundabouts.
- The word, "OK", **shall not** be used on any state maintained highways.

Symbols

Symbols **shall** conform to the SDD15C7 sheet a and **shall** only be used when the following criteria applies:

- At a site with a documented safety problem.
- Supplement to regulatory signage.
- At the discretion of the regional traffic engineer.

Chevron/Diagonal Markings

Chevron/Diagonal markings provide added emphasis to the neutral area of the gore. Chevron markings *may* be applied at gores. Refer to the FDM SDD 15C 31 sheet a and b

Stop Lines

Stop lines indicate where vehicles are required to stop at intersections. Stop lines are not required at all intersections, but *may* be desired if:

- An approach to a signalized intersection where detection is installed and stopping at a certain point *may* enhance the operation.
- Intersection approaches with unusual geometrics such as large skew angles or non-symmetric approaches.
- Complex multilane approaches.
- An approach to an intersection with the STOP sign installed well in advance of the desired stopping point because of curb radii.
- In advance of a marked or unmarked crosswalk with significant pedestrian volumes.

For placement of stop lines refer to SDD 15C33. If the stop lines are required by the department, the Department will maintain the markings. All other stop lines and crosswalks *may* be marked by contract at the request of the municipality with the understanding that the local agency assumes responsibility for the maintenance.

Crosswalks

Crosswalks mark the path at which pedestrians *should* cross the roadway by delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops. As a secondary purpose, crosswalk markings *may* also serve to alert drivers of a pedestrian crossing point without signal or stop control. At non-intersection locations, crosswalk markings legally establish the crosswalk.

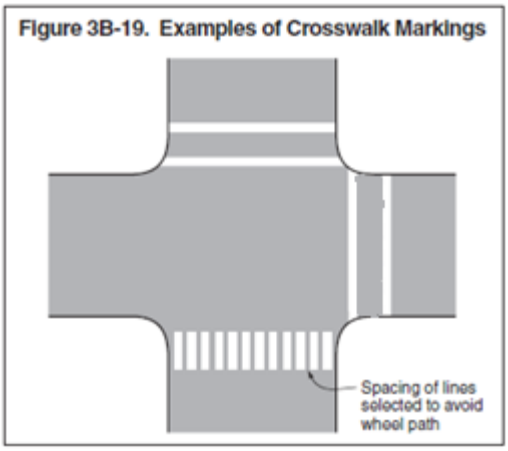
The Department policy for installation of crosswalks is as follows:

- Crosswalk markings *should* be installed at signalized intersections where pedestrian signal indications are present and at locations where there is a signed school crossing.
- Crosswalk markings *should not* be installed at non-intersection, mid-block locations or urban locations where posted speed limits are 45 MPH or more, unless traffic controls (all-way stop, signal, roundabout) or crossing enhancements (curb bump outs, median divider island, etc.) are present.
- Non-intersection crosswalk markings **shall not** be permitted at rural locations with a posted speed limit of 45 MPH or more. Exceptions *may* include trail crossings where advance warning signs are present.
- A permit for crosswalk markings *should not* be approved if a sidewalk or trail approach and/or ADA-compliant curb ramps (where there is curb) do not currently exist or are planned outside the roadway limits on both sides of the crosswalk approach. Per approval of the Region Traffic Engineer, the local government *may* be permitted to maintain existing crosswalk markings without sidewalk and/or ADA-compliant curb ramps as long as the local unit of government agrees to become compliant with the next highway project (regardless of sidewalk or curb work) or local sidewalk project.
- A permit for crosswalk markings **shall not** be approved unless parking is prohibited within 15 feet of the near limits of the crosswalk, as referenced in Wisconsin State Statute 346.53(5).

Crosswalk Type Selection

There are 2 types of crosswalks that WisDOT allows as shown in Figure 3B-19 of the WISMUTCD

- Two 6" Transverse Lines at all intersections
    - Preferred method due to:
        - Reduced maintenance cost
        - Less marking area to become slippery and cause problems
        - Reserve ladder bar for the areas with safety issues
- 24" Ladder Pattern
    - Midblock crossings
    - Multi-lane roundabouts where there is a high presence of pedestrians during peak hours or a demonstrated operational or safety issue. Consult the Region Traffic Engineer and Bike/Ped Coordinator for concurrence.



Crosswalk markings *should* be placed as nearly perpendicular as possible to the direction of travel on the roadway. The following form needs to be completed to permit a municipality to install and maintain a crosswalk DT2136. A signed copy of the permit **shall** be sent to the local unit of government and a copy **shall** be filed in the Region office.

Special Marking Treatments for Crosswalks

FHWA has published an official WISMUTCD Ruling, dated August 15, 2013 that allows subdued-colored aesthetic pavement treatments between legally marked transverse crosswalk lines. However, the following criteria **shall** apply:

- The colored pavement treatment **shall not** be made of retroreflective material.
- Transverse crosswalk lines **shall** delineate the edges of the crosswalk and **shal**l be 2-6" white transverse lines.
- Examples of acceptable aesthetic pavement treatments include brick lattice patterns, paving bricks, paving stones, cobbles or other types of paving. All treatments cannot impede wheelchair pedestrians.
- Examples of acceptable colors for aesthetic pavement treatments are red, rust, brown, burgundy, clay, tan or similar earth tone equivalents.

Aerial Enforcement and Vascar Enforcement Bars

Aerial and Vascar Enforcement Bars are transverse markings placed on the roadway to assist law enforcement agencies in the enforcement of speed regulations. These markings are a series of two to five bars with a center-to-center spacing of 660 ft. and **shall** conform to the SDD15C14.

- Aerial –These lines are utilized by airplane to determine vehicle speeds from the air.
- VASCAR (Visual Average Speed Computer and Recorder) – These lines are utilized at ground locations for speed monitoring and verification of distance traveled.

Wisconsin State Patrol is the authority on these markings in cooperation with the Division of Transportation System Development to determine the quantity and locations of these markings for the use on state trunk system. Wisconsin State Patrol will notify the Regional traffic office for new locations that are needed or those that need to be remarked. Actual marking of the lines will be done by the Special Marking Contractor

as the work schedule permits. A representative of State Patrol **shall** mark the locations of the lines with a small paint stripe prior to placing markings. A car can be provided by State Patrol for Traffic Control during the marking process, if the project engineer deems it necessary.

Parking Restrictions

Yellow curb markings *may* be installed on state highways to restrict parking. Yellow curb markings **shall** be accompanied by No Parking Signs or covered in State Statute 346. WisDOT will not pay for or maintain these markings.

3-2-4 Island Marking — March 2019

PURPOSE

This policy explains the concept of how islands **shall** be marked consistent with WISMUTCD Section 3B.23

POLICY

Channelizing lines **shall** be placed upstream and adjacent to islands. The color of the pavement marking adjacent to the island **shall** be indicative of the function of the island.

- If an island separates traffic flowing in the same direction, such as a right or left turn island, the pavement markings along the island **shall** be white.
- If an island separates opposing traffic, such as a median island, the pavement markings **shall** be yellow.

Channelizing lines *may* be extended to address a demonstrated problem.

Refer to SDD 15C18 and 15C27 for details on how to mark a Turn Lane Island, Median, and Corrugated Median

3-2-11 Raised Pavement Markers — March 2017

PURPOSE

Raised pavement markers are used to either supplement or substitute longitudinal pavement markings. These retroreflective units are either placed on top of or embedded into the pavement. Section 3B.11 to 3B.14 of the WISMUTCD covers the installation of raised pavement markers, and Section 6F.79 covers temporary raised pavement markers. This policy will clarify application of raised pavement markers on WisDOT maintained roadways.

POLICY

The color of the raised pavement markers **shall** match the color of the line that they supplement or substitute.

Plowable raised pavement markers **shall not** be used on state-maintained roadways. Existing plowable raised pavement markers **shall not** be covered over during a resurface project and **shall** be removed, prior to resurfacing the roadway.

Temporary Raised Pavement Markers, Type I (Pucks)

Temporary Raised Pavement Markers Type I *may* be used in construction zones to supplement pavement marking through shifting tapers. If used in shifting tapers within construction zones, temporary raised pavement markers **shall** remain in place until the traffic staging changes. They **shall** be placed every 50 feet.

Temporary Raised Pavement Markers, Type II (Tabs)

Temporary Raised Pavement Markers Type II **shall** be used to substitute pavement markings which are completely covered. Permanent markings **shall** be installed within 14 days of the marking being obliterated.

On undivided roadways, W8-12 “NO CENTER LINE” signs **shall** be used to warn motorists of a roadway without any centerline until temporary or permanent markings are installed. These signs **shall** be placed at the beginning of the project, at two-mile intervals throughout the project, and at locations where traffic enters the project area from intersections with state trunk and county trunk highways.

On undivided roadways, prior to the existing marking being obliterated, the locations of the existing pavement markings, including no passing zones, **shall** be documented. In addition, prior to the existing marking being obliterated, the R4-1 DO NOT PASS sign **shall** be installed at the beginning of the no passing zones. Additional R4-1 DO NOT PASS signs **shall** be installed within any no-passing zone that continues beyond an intersection

with a state or county trunk highway or that exceeds one mile in length. The R4-2 PASS WITH CARE sign **shall** be installed at the downstream end of the no passing zones. Once the permanent pavement marking has been re-established, the R4-1 and R4-2 signs **shall** be removed.

If the above signs are in place for less than seven continuous days and nights, rollup signs and stands *may* be used in lieu of post mounted signs.

Same-day pavement marking *may* be used in lieu of using Temporary Raised Pavement Markers, Type II.

The standard application of Temporary Raised Pavement Markers, Type II **shall** be installed as shown on Standard Detail Drawing 15C34.