On December 21, 2007, The Department of Transportation, Federal Highway Administration (FHWA) issued Final Regulations governing the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD); Maintaining Traffic Sign Retroreflectivity. This Final Rule is far reaching in effect and applies to most regulatory, warning, street name, and both ground-mounted and overhead guide signs - whether permanent, temporary or portable - on all public roads and private property where the public is invited to travel.

This rule is a result of a Congressional directive in Section 406 of the Department of Transportation and related Agencies Appropriations Act, 1993 (Public Law 102-388; Oct. 6, 1992). That act directed the Secretary of Transportation to revise the MUTCD to include a standard for minimum levels of retroreflectivity that must be maintained for traffic signs and pavement markings. This rule applies only to traffic signs. The FHWA is expected to promulgate a rule for pavement markings at a later date.

**Frequently Asked Questions**

**Q. What does the new rule require?**

A. The new federal standard as published in the Manual on Uniform Traffic Control Devices (MUTCD) requires all agencies or officials having jurisdiction over a road to implement a method to keep their traffic signs above an established minimum level of retroreflectivity.

**Q. What is the Manual on Uniform Traffic Control Devices?**

A. The Manual on Uniform Traffic Control Devices (MUTCD) is recognized as the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). It is incorporated by reference in 23 Code of Federal Regulations (CFR), Part 655, Subpart F.

**Q. What does the word “retroreflective” mean?**

A. “Retroreflective” means the ability of a material to return light to its source. In order to appear bright to drivers at night, signs need to be either directly illuminated or have “retroreflective” surfaces so that the light striking them from vehicle headlights is reflected back to the driver's eyes.

**Q. How is a sign made retroreflective?**

A. To make a sign retroreflective, special material called “reflective sheeting” is used. This sheeting consists of a white or colored material having a smooth, sealed outer surface incorporating miniature glass beads or uniform microprismatic lenses over its entire surface.

**Q. What signs are affected?**

A. The regulation applies to most regulatory, warning, street name and guide signs. These signs are also referred to as white, red, yellow, green, or orange series signs. The following signs are excluded: Parking, standing, walking, hitchhiking, crossing, adopt-a-highway, all signs with blue or brown backgrounds, and bikeway signs that are intended for exclusive use by bicyclists or pedestrians.

**Q. How does a local jurisdiction comply with this requirement?**

A. The FHWA was careful to provide substantial flexibility in its final rule so that state and local jurisdictions have a choice of methods to meet the retroreflectivity requirements. There are five options developed by the FHWA, called “Assessment or Management Methods.”

**Q. Is there a compliance timetable for this new regulation?**

A. Compliance required as signs are being replaced or refurbished because they are damaged, missing, or no longer serviceable for any reason.

**Q. What are the specific “minimum levels” of retroreflectivity?**

A. These levels are included in a table that is part of the Final Rule. The table can be found on page 4.
Visual Nighttime Inspection Method
In the visual nighttime inspection method, the inspector assesses the visibility and retroreflectivity of the traffic signs as he or she approaches the signs. Signs need to be replaced if they do not meet the comparison defined in the appropriate procedure.

Measured Retroreflectivity Method
In this method, the retroreflectivity of a sign is measured and directly compared to the minimum level appropriate to that sign. A sign needs to be replaced if the average retroreflectivity value is less than the appropriate minimum level.

Expected Sign Life Method
In this method, individual signs are replaced before they reach the end of their expected service life. To do this, an agency will need to know the expected service life required for the retroreflective material to degrade to the minimum retroreflective levels, and will need a method of identifying the age of individual signs.

Blanket Replacement Method
In this method, an agency replaces all the signs in an area/corridor, or of a given type, at specified intervals. An agency that uses this method does not need to track the age or assess the retroreflectivity of individual signs.

Control Sign Method
In this method, a control sample of signs is used to represent the total population of an agency’s signs. The retroreflectivity of the control sign is monitored at appropriate intervals and sign replacement is based on the performance of the control signs.

It’s Time for Action.
3 ways to implement the Expected Sign Life or the Blanket Replacement Method of maintaining traffic sign retro-reflectivity.

**SIGNDATE02CPC**

Do you have an Assessment Method in place to maintain Minimum Retroreflectivity?

**3 ways to implement the Expected Sign Life or the Blanket Replacement Method of maintaining traffic sign retro-reflectivity.**

**GENERIC DATING STICKER**

2 1/4" WIDE x 1 1/8" HIGH

The Generic dating sticker provides the year and you simply punch out the month that applies to either the date of installation or replacement date.

Sign Installation Date Style

<table>
<thead>
<tr>
<th>#DGID(X)15</th>
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<tbody>
<tr>
<td>REPLACE THIS</td>
</tr>
<tr>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>7 8 9 10 11 12</td>
</tr>
</tbody>
</table>

Expected Sign Life Style

<table>
<thead>
<tr>
<th>#DGES(X)25</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 1 2 3 4 5 6</td>
</tr>
<tr>
<td>2025</td>
</tr>
<tr>
<td>7 8 9 10 11 12</td>
</tr>
</tbody>
</table>

**WARNING MESSAGE DATING STICKER**

4" WIDE x 2 1/4" HIGH

The Warning Message dating sticker provides a deterrent to vandalism and theft while still maintaining the date of installation or replacement date.

Sign Installation Date Style

<table>
<thead>
<tr>
<th>#DWID(X)15</th>
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<tbody>
<tr>
<td>WARNING MESSAGE</td>
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<tr>
<td>1 2 3 4 5 6</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>7 8 9 10 11 12</td>
</tr>
</tbody>
</table>

Expected Sign Life Style

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<tr>
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</tr>
</tbody>
</table>

**UNIQUE DATING STICKER**

4" WIDE x 2 1/4" HIGH

The Unique dating sticker serves both purposes listed above while also allowing you to use logos and text of your choosing.

Sign Installation Date Style

<table>
<thead>
<tr>
<th>#DUID(X)15</th>
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</thead>
<tbody>
<tr>
<td>WARNING MESSAGE</td>
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Expected Sign Life Style

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<tr>
<td>7 8 9 10 11 12</td>
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</tbody>
</table>

**Blanket Replacement METHOD:**

The agency will replace all the signs in an area or of a specific series at given intervals. The agency can use stickers that specify installation dates to help them know when to replace all signs in the area or series.

**Expected Sign Life METHOD:**

Signs must be replaced before they reach the end of their expected sign life. An agency must have documentation of expected replacement for individual signs.

**VOICE:** 1-800-367-1492 • **FAX:** 1-800-206-3444

sales@cpcsigns.com • www.cpcsigns.com
<table>
<thead>
<tr>
<th>SIGN COLOR</th>
<th>SHEETING TYPE (ASTM D4956-04)</th>
<th>ADDITIONAL CRITERIA</th>
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<tr>
<td></td>
<td>Beaded Sheeting</td>
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<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>White on Green</td>
<td>W*; G≥7</td>
<td>W*; G≥15</td>
</tr>
<tr>
<td></td>
<td>W*; G≥7</td>
<td>W≥120; G≥15</td>
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<tr>
<td>Black on Yellow or Black on Orange</td>
<td>Y*; O*</td>
<td>Y≥50; O≥50</td>
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<tr>
<td></td>
<td>Y*; O*</td>
<td>Y≥75; O≥75</td>
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<tr>
<td>White on Red</td>
<td>W≥35; R≥7</td>
<td></td>
</tr>
<tr>
<td>Black on White</td>
<td>W≥50</td>
<td></td>
</tr>
</tbody>
</table>

1. The minimum maintained retroreflectivity levels shown in this table are in units of cd/lx/m² measured at an observation angle of 0.2° and an entrance angle of -4.0°

2. For text and fine symbol signs measuring at least 1200mm (48 in) and for all sizes of bold symbol signs.

3. For text and fine symbol signs measuring less than 1200mm (48 in) and for all sizes of bold symbol signs.

4. Minimum sign contrast ratio ≥3:1 (white retroreflectivity ÷ red reflectivity). * This sheeting type should not be used for this color for this application.

**BOLD SYMBOL SIGNS**

- W1-1, -2 - Turn and Curve
- W1-3, -4 - Reverse Turn and Curve
- W1-5, - Winding Road
- W1-1, -2 - Turn and Curve
- W1-3, -4 - Reverse Turn and Curve
- W1-5 - Winding Road
- W1-6, -7 - Large Arrow
- W1-8 - Chevron
- W1-10 - Intersection in Curve
- W1-15 - 270 Degree Loop
- W2-1 - Cross Road
- W2-2, -3 - Side Road
- W2-4, -5 - T and Y Intersection
- W2-6 - Circular Intersection
- W3-1 - Stop Ahead
- W3-2 - Yield Ahead
- W3-3 - Signal Ahead
- W4-1- Merge - W4-2 - Lane Ends
- W 4-3 - Added Lane
- W4-6 - Entering Roadway Added Lane
- W6-1, -2 - Divided Highway
- W6-3 - Two-Way Traffic
- W6-7 - Highway-Railroad Advance Warning
- W11- 2 - Pedestrian Crossing
- W11-3 - Deer Crossing
- W11-4 - Cattle Crossing
- W11-5 - Farm Equipment
- W11-6 - Snowmobile Crossing
- W11-7 - Equestrian Crossing
- W11-8 - Fire Station
- W11-I0 - Truck Crossing
- W12-1 - Double Arrow
- W16-5p, -6p, -7p - Pointing Arrow Plaques
- W20-7a - Flagger
- W21-1a - Worker

**SPECIAL CASES**

- W3-1 - Stop Ahead: Red retroreflectivity ≥7
- W3-2 - Yield Ahead: Red retroreflectivity ≥7; White retroreflectivity ≥35
- W3-3 - Signal Ahead: Red retroreflectivity ≥7; Green retroreflectivity ≥7
- W3-5 - Speed Reduction: White retroreflectivity ≥50
- For non-diamond shaped signs such as W14-3 (No Passing Zone), W4-4P (Cross Traffic Does Not Stop) or
- W13- 1, -2, -3, -5 (Speed Advisory Plaques), Use largest sign dimension to determine proper minimum retroreflectivity level

**REFER TO WEBSITES BELOW**

- [www.cpcsns.com](http://www.cpcsns.com) (CPC) Custom Products Corporation
  We manufacture traffic signs and can provide you with most of your traffic safety and community development needs. Go to our web site for product and contact information. Our current catalog can also be downloaded from our web site.

- [www.3m.com/tss](http://www.3m.com/tss) 3M Company
  This web site will provide you with product and service information, safety solutions, other industry links, and much more.

  This site will provide current federal regulations and compliance dates. A copy of the MUTCD manual can also be downloaded from this site.

  The key mission of the FHWA office of safety is to make roadways safer. This web site shows statistics, safety research, tools, and technology.

  The mission of the American Traffic Safety Service Association is to promote and enhance the traffic safety industry through educational giving programs. You will find safety programs, funding programs, and an online store where you can purchase things such as the newest edition of the MUTCD manual.

- [www.retroreflectivity.net](http://www.retroreflectivity.net) ATSSA Retroreflectivity