



To: Chairperson and PS&T Committee
From: Matthew Lew, PE, Civil Engineer *ML*
Through: Carl Goldsmith, Director of Public Works *CG*
Date: October 21, 2021
Subject: Stop Sign Highlighting Policy

At the September 1, 2021 PS&T Committee meeting, the Committee requested staff to review the potential use of flashing LED stop signs. No signage of this type is currently installed on roadways under Village jurisdiction. Staff has reviewed the Committee's request and has formulated a proposed Village Board policy for their potential use. Below are highlights of the policy:

- Allowed as an optional use under the MUTCD
- Reviewed at existing locations with related crash documentation
- Considered after other countermeasures are reviewed
- Installed after policy point criteria is exceeded

The proposed Village Board policy is attached and is modeled after existing municipal policies. The Public Works and Police Departments support the proposed policy. With Committee approval, the policy would be placed on the November 18, 2021 Village Board Agenda for consideration.

Staff recommends approval of the Sign Highlighting Policy.



VILLAGE OF LOMBARD

VILLAGE BOARD POLICY MEMORANDUM

Subject: Sign Highlighting Policy

Section: 6.K.

Dept.: PW

Date: November 18, 2021

I. Purpose

This policy summarizes Village policy on sign highlighting and visibility. This policy is governed by the Manual of Uniform Traffic Control Devices.

II. Procedures/Guidelines

The current edition of the Manual on Uniform Traffic Control Devices (MUTCD), Section 2A.07, provides standards and options for the usage of Light Emitting Diode (LED) units within the face of a sign and in the border of a sign to improve visibility and increase the legibility of sign legends and borders. These flashing LED signs may be used on stop signs, other Regulatory signs such as speed limit signs, and Warning signs. Per the MUTCD, agencies may adopt additional policies on the appropriate use of LED signs. This policy provides guidance on identifying locations where flashing LED signs may be beneficial and outlines the requirements that must be met for a flashing LED sign to be considered on Village of Lombard maintained roadways. The following policy provides a process through which to identify the appropriate conditions and determine whether a flashing LED stop sign may be installed.

1. If used, the LEDs shall have a maximum diameter of 1/4 inch and shall be the following colors based on the type of sign:
 - a. Red - if used with STOP or YIELD signs.
 - b. White - if used with other Regulatory signs.
 - c. Yellow - if used with Warning signs.
2. If flashed, all LED units shall flash simultaneously at a rate of more than 50 and less than 60 times per minute.
3. The uniformity of the sign design shall be maintained without any decrease in visibility, legibility, or driver comprehension during either daytime or nighttime conditions.
4. A module of multiple LED units used as a closely-spaced, single light source shall only be used within the sign face for legends or symbols.

The usage of any illumination methods for traffic signs, including LEDs, is strictly limited to intersections with documented collision history. However, it is at the sole discretion of the Director of Public Works or designee to approve the installation of a flashing LED sign. The following minimum requirements are established by the Village of Lombard for the installation of flashing LED signs:

1. Flashing LED signs shall only be considered at existing locations. New locations shall not be considered until a minimum of three years of crash data with current signage is available for a traffic investigation and evaluation study using the criteria outlined in this policy.

2. The following countermeasures shall be considered prior to installation of any flashing LED sign:
 - a. Improve signage visibility
 - b. Remove obstructions
 - c. Add advance warning signage
 - d. Add additional striping
 - e. Add supplemental signage
 - f. Add flags or spinning reflective markers (spinners)
 - g. Increase signage size
 - h. Selective enforcement
 - i. Implementation of other traffic calming techniques designed to improve roadway safety and slow vehicle travel speed.

Note: Flashing LED signs shall only be considered after all other countermeasures have been considered.
3. To avoid a proliferation of flashing LED signs, they shall only be considered for STOP and STOP AHEAD signs. These signs are considered the more important of the Regulatory Sign and Warning Sign series. There is the longstanding concern that overuse of the flashing LED signs will diminish their effectiveness.
4. Prior to installation of flashing LED STOP and STOP AHEAD signs at intersections, the following criteria must be met:
 - a. The intersection must be all-way stop controlled or two-way stop controlled with cross traffic warning signage.
 - b. Evidence of crashes due to failure to stop (i.e., running the stop sign) shall exist at the studied location.
5. LED STOP signs and STOP AHEAD signs shall not be installed on the same approach. Where there is a curve or hill approaching a STOP sign, the flashing LED sign shall be STOP AHEAD sign rather than STOP sign.
6. Beacons and flashing LED signs with STOP and/or STOP AHEAD signs shall not be installed on the same approach.

Installation of a flashing LED STOP or STOP AHEAD sign shall be considered by the Director of Public Works or designee at locations that obtain a minimum of 40 points using the warrant criteria listed below.

1. Crash Experience (Maximum 40 Points): The number of correctible crashes that have occurred during any rolling 24-month period within four years prior to investigation. These crashes must be the direct cause of a vehicle failing to stop at the intersection involving personal injury or property damage exceeding the applicable requirements for a reportable crash. In addition, for any location to be considered for the installation of a flashing LED sign, a minimum of two incidents within three years prior to the investigation and/or four incidents within five years prior to the investigation shall have occurred. See Table 1 for point values.

Table 1 - Crash Experience

Crashes (24 months)	Points
2	10

3-4	20
5-6	30
7+	40

2. Proximity to School (Maximum 15 Points): Points shall be assigned for the intersection being adjacent to or within a three (3) block radius from school property. Multiple schools will generate additional points using the same point distribution. See Table 2 for point values.

Table 2 – School Proximity

Intersection Location	School 1	School 2	School 3
Adjacent	5 points	5 points	5 points
One Block	3 points	3 points	3 points
Two to Three Blocks	1 point	1 point	1 point

3. Intersection Spacing (Maximum 5 Points): This is the distance between the intersection being investigated and the preceding intersection. See Table 3 for point values.

Table 3 – Intersection Spacing

Distance (blocks)	Points
1	0
2	1
3	3
4+	5

4. Unusual Conditions (Maximum 10 Points): Points may be assigned at the discretion of the Director of Public Works or designee considering the following:
- High pedestrian and bicycle activity because of proximity to recreational facilities including school facilities, parks, senior centers, high-density housing, neighborhood library, transit stops, and other facilities that generate high pedestrian and bicycle activity;
 - Crashes related to excessive speed;
 - Visual signs of emergency maneuvers, such as skid marks and crash debris;
 - Conditions not readily apparent to drivers.

III. Legislation/Documentation

- Public Safety and Transportation Committee Minutes of November 3, 2021
- Board of Trustee Minutes of November 18, 2021