

DATE: February xx, 2022

SUBJECT: LED Border Lit Signs

TO: District Executives

FROM: T Jay Cunningham, P.E., Acting Director
Bureau of Maintenance and Operations

This time and resource neutral Strike-off Letter (SOL) establishes policy for LED Border Lit Signs in Pennsylvania. This policy will be be incorporated into Publication 149, *Traffic Signal Design Handbook*, as part of a future change to the publication.

LED Border Lit Signs are considered a type of Flashing Warning Device, and Flashing Warning Devices are a type of traffic signal. Therefore, approval authority, installation, maintenance, and operation are subject to the requirements for traffic signals in Title 67 Pa. Code Chapter 212. Applications for LED Border Lit Signs shall be submitted using Form TE-160.

Prior to installing a permanent LED Border Lit Sign, the following countermeasures should be considered, as applicable:

- Clearing vegetation
- Double placement of signs
- Conspicuity plaques (W16-102P) placed on signs
- Rumble strips
- Increasing sign size
- Placing and installing a retroreflective material to the sign support in compliance with the provisions of Section 2A.21 of the Manual on Uniform Traffic Control Devices (MUTCD)

Installation of a LED Border Sign shall only occur when warranted with an engineering and traffic study using sound engineering judgment based upon a combination of all data sources substantiates the need for the LED Border Lit Sign. The following guidelines should be considered as part of an engineering and traffic study:

- Documented safety concerns – a minimum of one year of crash data, volume data, or other traffic data for a traffic safety evaluation
- Demonstrated and documented crash problem
 - For STOP and STOP AHEAD signs, consider installing a LED Border Lit Sign only if there were at least two documented crashes from failure to stop (running the stop sign) during a 12 month period
- Visibility Restrictions
- Unusual Geometrics
- Poor conspicuity (i.e. sign blending in with the environment)
- Engineering judgment

Although no quantitative warrants are established for use of LED Border Lit Signs, the use of LED Border Lit Signs should be considered an alternative to a flashing wig-wag supplementing

the sign, and the use of the LED Border Lit Signs should be limited to locations where a flashing wig-wag would also be appropriate.

All LED Border Lit Signs shall comply with the specifications in Publication 408 and use a product listed on Bulletin 15. All LED Border Lit Signs shall also comply with all standards in the MUTCD. The sign size and layout shall be consistent with requirements in Publication 236, Handbook of Approved Signs.

Should you have any questions, please contact Stephen Gault, P.E., PTOE, Chief, TSMO Arterials and Planning Section at (717) 787-6988 or sgault@pa.gov.

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