11-2-1 Permitted Roadway Lighting System Approval

April 2024

PURPOSE

This policy describes the requirements for approval of roadway lighting facilities install and maintained by local agencies (or other entities) within the limits of the public highway rights-of-way on the State Trunk Highway System.

POLICY

All locally owned and maintained roadway lighting systems installed on the State Trunk Highway System **shall** require a permit in accordance with this document.

The provisions of this policy **shall** apply to all cities, villages, counties, and towns (i.e., local agencies) which desire to use or occupy rights-of-way on the State Trunk Highway System for locally owned and maintained roadway lighting and other types of lighting facilities. Public, private, and municipal utilities, cooperatives, and private citizens who desire to use or occupy rights-of-way on the State Trunk Highway System for roadway lighting **shall** apply to the city, village, county, or town in which the State Trunk Highway is located.

This policy does **not** apply to lighting systems proposed for installation on **local roadways or connecting highways**. These are the responsibility of the local municipalities. This document *may* be used as a reference for the design of such systems.

PROCEDURAL REQUIREMENTS

For all Projects covered under this policy, an application for approval to install roadway lighting **shall** be submitted to the WisDOT Regional Office by or on behalf of the local agency that will be paying for the maintenance and energy costs associated with the lighting system. Funding and participation limits between the local agency and WisDOT region *should* be defined prior to submitting any permit documents in accordance with the WisDOT Program Management Manual (PMM).

The application **shall** be submitted on the appropriate current forms and **shall** include all items outlined in this document. The forms are available on the WisDOT web site and are linked below in the Applicable Forms Section.

Permit applications that require State Lighting Engineer approval **shall** be submitted to the attention of the Regional Office. The WisDOT Regional office will review before forwarding it to the State Engineer for approval.

APPROVAL AUTHORITY

The State Lighting Engineer **shall** review and approve all permits involving new continuous lighting systems, as well as applications on the State Trunk Highway system that include:

- Ornamental street lighting
- Pedestrian and trail lighting
- Underdeck lighting
- Receptacles for Festoon Lighting

New permits are also required any time an agency wishes to upgrade or otherwise modify an existing continuous system, including altering or moving lighting equipment, or altering equipment associated with a lighting transition zone.

The Regional Office has the approval authority to review, and issue permits for isolated lighting on the State Trunk Highway System. This includes the installation of a luminaire and arm added to an existing or new utility pole. The Regional Office *may* review and issue a permit for continuous lighting when an agency wishes to add lighting units to an existing continuous system if the new lighting units match the existing equipment and generate equivalent lighting levels.

MODIFYING A PERMITTED SYSTEM

Any changes to an existing permitted installation that result in the following alterations, **shall not** be made until a new permit authorizing such changes is issued (note: excludes routine maintenance activities):

- Pole locations
- Pole heights and types
- Luminaire and lamp types
- Receptacles for festoon lighting
- Operating conditions such as lighting curfews/dimming
- Other items affected by this policy

ISOLATED LIGHTING PERMIT APPLICATION

The Applicant **shall** contact the Regional Office at project conception to begin the Isolated Lighting permit process. Isolated Lighting typically involves lighting of a single intersection of a non-illuminated roadway, or periodic lighting along a roadway where IES defined light level standards or average Illuminance and uniformity are not applicable. Form DT1885 shall be submitted to the WisDOT Regional Traffic Operations Section for review and approval.

CONTINUOUS LIGHTING PERMIT APPLICATION

The applicant **shall** follow the two-part process outlined below for Continuous Lighting permit applications, consisting of a preliminary and a final application form:

 Prior to the 60% submittal, the Applicant shall contact the Regional Office to coordinate the submittal of a preliminary permit application. The name and address of the project electrical and lighting designer shall appear on the form. The applicant shall provide catalog cut sheets for proposed poles and luminaires. Photometric design and pole layout *should not* be completed until the preliminary application is submitted and approved. The Regional Office *may* review the basic project information and coordinate with the State Lighting Engineer on acceptance of lighting levels, pole locations, and luminaire type.

As part of this preliminary process, the applicant **shall** describe the purpose for the proposed lighting system, such as:

- a. Roadway safety lighting in accordance with AASHTO requirements
- b. Decorative lighting for urban areas
- c. Public safety for areas with sidewalks and paths
- 2. Prior to submitting draft PS&E, the Applicant shall submit the final permit application to the Regional Office. Lighting and electrical plans, special provisions, photometric and voltage drop calculations, and pole and luminaire cut sheets shall be submitted with the final permit application. The name and address of the project electrical and lighting designer and appropriate signatures shall appear on the form. After initial review, the Regional Office shall forward the application to the State Lighting Engineer for approval.
- 3. When replacing existing light poles with new light poles to allow for the mounting of other equipment (cameras, small cell antennas) to the poles, the applicant must refer to the applicable section that covers replacing existing lighting poles <u>https://wisconsindot.gov/Documents/doing-bus/real-estate/permits/09-15-41r_0621.pdf</u>. The new light pole must be of the same type of materials to match the adjacent light poles, a WisDOT approved mast arm must be provided with an approved LED luminaire must be mounted to the new pole. The new pole **shall** be installed in the same general location (within 5 feet) as the existing light pole it replaces.

Other required information related to the Final Permit Submittal:

- Summary Tables that include both the design parameter target illumination values and calculated results
- Computer Design Computations for illumination and spacing of completed roadway sections.
- If banners, holiday decorations or festoon receptacles are to be installed or attached to the poles, the dimensions and locations shall be included and shown on a detail drawing in the plans (Festoon receptacles shall be set up on their own circuits, separate from the lighting)
- The designer **shall** include in the project plans the necessary SPV verbiage that ensures the final luminaires provided on the project will meet the design parameters of the permit.

The Project Electrical/Lighting Engineer and Applicant **shall** sign and date the final permit application.

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APPLICABLE FORMS

- DT1878 Preliminary Continuous Lighting Permit Application
- DT1879 Final Continuous Lighting Permit Application
- DT1885 Isolated Lighting Permit Application
- Signalized Intersection Illumination Form (see <u>TEOPS 11-4-2</u>)
- Roundabout Illumination Form (See <u>TEOPS 11-4-3</u>)

11-2-2 Private Light Trespass on State Right-of-Way

Privately owned lighting installations adjacent to the State Trunk System *may* require approval from WisDOT if light trespasses beyond the private property and onto State-owned rights-of-way. Locations where light trespass is identified in a significant capacity on a State-owned right-of-way *may* be subjected to evaluation, including the request for photometric measurements and documentation of system justification. Light trespass which creates significant glare on State-owned rights-of-way **shall** be evaluated with respect to the safety of roadway users. Permitting for private lighting sources trespassing on State-owned right-of-way **shall** follow the same approval process as an isolated lighting installation. Form DT1885 **shall** be submitted to the WisDOT Regional Traffic Operations Section.

11-2-3 Other Lighting Categories (Requiring Special Permits)

Flood lighting for bridges and retaining walls, work with BTO Lighting as this type of lighting is addressed on project-by-project basis. For aesthetic lighting on structures, refer to <u>TEOPS 11-3-8</u>.

When, LED Advertisement Signs are installed in WisDOT right-of-way near or on STH systems, the designer **shall** refer to policy set forth in <u>HMM 9-5-1</u> Outdoor Advertising,

- a. No sign shall contain, include or be illuminated by any moving, flashing or intermittent lights.
- b. No sign **shall** emit or reflect beams or rays of light on any portion of the traveled way or **shall** emit or reflect light of such intensity or brilliance as to cause glare or to impair or otherwise interfere with a driver's vision.
- c. No sign shall be so lighted as to obstruct or interfere with an official traffic sign, device or signal.

Refer to <u>TEOPS 11-3-9</u> for navigation lighting. Refer to <u>TEOPS 11-3-10</u> for roadway lighting equipment installed near airports. April 2024

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