

Article 4: Development Standards
Division 5: Lighting

City of Munising Zoning Ordinance

Section 450 Purpose

The purpose of this Article is to protect the health, safety, and welfare of the public by recognizing that buildings and sites need to be illuminated for safety, security and visibility for pedestrians and motorists. To do so, this Article provides standards for various forms of lighting that will: minimize light pollution; maintain safe nighttime driver performance on public roadways; preserve the restful quality of nighttime by eliminating intrusive artificial light and lighting that unnecessarily contributes to “sky glow”; reduce light pollution and light trespass from light sources onto adjacent properties; conservation of electrical energy; minimize the impact on nocturnal and migratory birds; and curtail the degradation of the nighttime visual environment.

Section 451 Applicability

The standards in this Article shall apply to any light source that is visible from any property line, or beyond, for the site from which the light is emanating. These standards are not intended to limit or prohibit any visible lighting source or fixture inside a residential unit. The Zoning Administrator (or his designee) may review any building or site to determine compliance with the requirements under this Article. Whenever a person is required to obtain a building permit, electrical permit for outdoor lighting or signage, a special land use approval, subdivision approval or site plan approval from the City, the applicant shall submit sufficient information to enable the Zoning Administrator to determine whether the proposed lighting will comply with this Article.

Section 452 Lighting Definitions

The following words, terms, and phrases, when used in this Article, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning:

Canopy Structure: Any overhead protective structure which is constructed in such a manner as to allow pedestrians/vehicles to pass under.

Flood or Spotlight: Any light fixture or lamp that incorporates a reflector or refractor to concentrate the light output into a directed beam in a particular direction.

Glare: Direct light emitted by a lamp, luminous tube lighting or other light source.

Lamp: The component of the luminaire that produces the actual light including luminous tube lighting.

City of Munising Zoning Ordinance

Light Fixture: The assembly that holds a lamp and may include an assembly housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and a refractor or lens. A light fixture also includes the assembly for luminous tube and fluorescent lighting.

Light Pollution: Artificial light which causes a detrimental effect on the environment, enjoyment of the night sky or causes undesirable glare or unnecessary illumination of adjacent properties.

Light Trespass: The shining of light produced by a luminaire beyond the boundaries of the property on which it is located.

Luminaire: The complete lighting system including the lamp and light fixture.

Luminous Tube Lighting: Gas filled tubing which, when subjected to high voltage, becomes luminescent in a color characteristic of the particular gas used, e.g., neon, argon, etc.

Outdoor Light Fixtures: Outdoor artificial illuminating devices, outdoor fixtures, lamps, and other similar devices, permanently installed or portable, used for flood lighting, general illumination, or advertisement.

Shielded Fixture: Outdoor light fixtures shielded or constructed so that light rays emitted by the fixture are projected below the horizontal plane passing through the lowest point on the fixture from which light is emitted, e.g., "shoebox-type" fixtures. A luminaire mounted in a recessed fashion under a canopy or other structure such that the surrounding structure effectively shields the light in the same manner is also considered fully shielded for the purposes of this Article.

Wall Pack: An unshielded fixture that is typically wall-mounted and used to illuminate a large area.

Section 453 Submittal Requirements

- a. The following information must be included for all site plan submissions and where full site plan approval is not required, some or all of the items may be required by the Zoning Administrator:
 1. Location of all freestanding, building-mounted and canopy light fixtures on the site plan and building elevations.
 2. Photometric grid overlaid on the proposed site plan indicating the overall light intensity throughout the site (in footcandles).

City of Munising Zoning Ordinance

3. Specifications and details for the type of fixture being proposed including the total lumen output, type of lamp and method of shielding.
 4. Use of the fixture proposed.
- b. Any other information deemed necessary by the Zoning Administrator to determine compliance with provisions of this Article.

Section 454 Lighting Standards

- a. Unless exempted under Section 455, all lighting must comply with the following standards:
1. Freestanding Pole Lighting
 - a) Exterior lighting shall be fully shielded and directed downward to prevent off-site glare. Fixed (not adjustable), downward directed, metal halide or LED, shoebox fixtures shall be used in an effort to maintain a unified lighting standard throughout the City and prevent "sky glow. LED lighting shall not cast a halo and must be shielded if the light casts onto prevent light trespass onto neighboring developments.
 - b) All lighting except, (municipal street lighting) or as otherwise exempted elsewhere in this Article, shall meet the requirements for shielding, placement, and aiming to minimize light trespass and glare such that:
 - i. No more than .10 foot-candles are measured on a vertical plane located at the property line of the adjacent property.
 - ii. The glare measurements from a zero-setback property line that is adjacent to a public street, private road, or an out lot not reserved for future development shall be no more than 1.0 foot-candles measured in a vertical plane located at the property line.
 - iii. Light trespass from a non-residential use abutting, or across the alley from, a residential district shall not exceed 0.5 foot-candle at the residential property line measured on a horizontal plane.
 - iv. LED light temperature shall be "warm-white" or filtered to minimize blue light emission. No LED lamps shall have a color corrected temperature (CCT) that exceeds 3,000 Kelvin.
 - c) The intensity of light within a site shall not exceed ten (10) footcandles within any site or one (1) footcandle at any property line, except where it abuts a service drive or other public right-of-way. The only exception is for automobile dealership lighting, where a maximum of twenty (20) footcandles is permitted in display areas within the site but the above standards shall apply to intensity at the property line. Footcandles abutting a residential district or use can be a maximum of 0.5 footcandles at the property line.
 - d) The Planning Commission may approve decorative light fixtures as an alternative to shielded fixtures when it can be proven that there will be no

City of Munising Zoning Ordinance

off-site glare and the proposed fixtures are necessary to preserve the intended character of the site.

- e) The maximum height of parking lot light fixtures shall be twenty (20) feet, except that the Planning Commission may permit a maximum height of thirty (30) feet within commercial, industrial, and office zoning districts and for institutional uses in residential districts when the poles are no closer than one hundred fifty (150) feet to a residential district or use.
 - f) Parking lot poles shall be located in parking lot islands or in the periphery parking lot area. Light poles shall be prohibited in parking spaces.
 - g) Except where used for security purposes, all outdoor lighting fixtures, existing or hereafter installed and maintained upon private property within non-residential zoning districts shall be turned off between 11:00 p.m. and sunrise, except where such use continues after 11:00 p.m. but only for so long as such use continues.
2. Building-Mounted Lighting
- a) Building-mounted lighting shall be fully shielded and directed downward to prevent off-site glare. Fixed (not adjustable), downward directed, metal halide fixtures shall be used in an effort to maintain a unified lighting standard throughout the City and prevent "sky glow."
 - b) The intensity of light within a site shall not exceed ten (10) footcandles within any site or one (1) footcandle at any property line, except where it abuts a service drive or other public right-of-way. Footcandles abutting a residential district or use can be a maximum of 0.5 footcandles at the property line.
 - c) The Planning Commission may approve decorative light fixtures as an alternative to shielded fixtures when it can be proven that there will be no off-site glare and the proposed fixtures will improve the appearance of the site or is necessary for security purposes.
 - d) The intensity of lighting under roof eaves, awnings, porticos, or other structural projections shall not exceed ten (10) footcandles. The internal illumination of building-mounted awnings is prohibited.
 - e) Luminous tube, LED, and exposed bulb lighting is prohibited as an architectural detail on all buildings, e.g., along the roof line and eaves, around windows, etc. unless approved by the Planning Commission upon showing that the treatment will enhance the appearance of the building.
3. Window Lighting
- a) Any light fixtures visible through a window must be shielded to prevent glare at the property line.
 - b) Luminous tube, LED, and exposed bulb lighting (visible from the property line) is prohibited in the windows of a building unless it is part of a sign that meets the requirements of this Article.
4. Gas Station Canopy Lighting.
- a) The intensity of lighting under gas station canopies shall not exceed 32 footcandles or have an average intensity greater than 22 footcandles for LED

City of Munising Zoning Ordinance

- fixtures. Any other fixtures shall not have an intensity greater than 20 footcandles.
- b) All fixtures must be recessed into the canopy and the lens shall not extend below the lowest part of the fixture.
5. Other Lighting
- a) The internal illumination of building-mounted canopies is prohibited.
 - b) Indirect illumination of signs and buildings is permitted provided there is no off-site glare.
 - c) The use of laser light source, search lights or any similar high intensity light for outdoor advertisement or entertainment is prohibited.
 - d) Lighting shall not be of a flashing, moving, or intermittent type.
 - e) Luminous tube, LED, and exposed bulb fluorescent lighting is permitted as part of a sign meeting the requirements of this Article

Section 455 Exemptions

The following are exempt from the lighting requirements of this Article, except that the Zoning Administrator may take steps to eliminate the impact of the exempted items when deemed necessary to protect the health, safety, and welfare of the public:

- a. Sports field lighting, provided they are located at least 1000 feet away from any existing residential zone or use. Other sports field lighting may be approved by the Planning Commission after a determination that compliance with the standards in this Article have been met to the greatest extent possible, and that all efforts possible were made to minimize any negative impacts to surrounding uses. New activities or games (requiring sports field lighting) may not begin after 10:00 p.m.
- b. Swimming pools.
- c. Holiday decorations when removed within 15 days of said holiday.
- d. Window displays without glare.
- e. Shielded pedestrian walkway lighting.
- f. Residential lighting with no off-site glare.
- g. Streetlights.
- h. American Flag lighting
- i. Search lights may be approved by the Zoning Administrator, under the following conditions:
 - 1. Such lighting must be associated with a public or private special event or annual sale.
 - 2. Search lights for private events may be approved for a maximum of two (2) such events per business, person, or organization, per calendar year. The Zoning Administrator may grant exceptions to this maximum for community-wide events or for those that serve a general public purpose or that benefit the public.

City of Munising Zoning Ordinance

3. Search lights may not be used for a duration exceeding seven (7) consecutive calendar days.
4. Location of all search lights must be in a non-residential district and must be placed in such a way as to minimize any nuisance or glare onto any nearby residential property.
5. Search lights may not be run by any power supply that creates noise or vibration that can be heard or felt by nearby residences at a level that is greater than 75 decibels, or roughly equivalent to the noise generated by City traffic.
6. If it is determined necessary by the Zoning Administrator, a limit to the hours of search light usage may be imposed to prevent night glare.

Section 456 Lamp or Fixture Substitution

Should any light fixture regulated under this Article, or the type of light source therein, be changed after the permit has been issued, a change request must be submitted to the Zoning Administrator for approval, together with adequate information to assure compliance with this Ordinance, which must be received prior to substitution.