

CHAPTER 32
EXTERIOR LIGHTING

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CHAPTER 32
EXTERIOR LIGHTING
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14-3200. PURPOSE

All exterior lighting shall be designed and installed to maintain adequate, safe illumination levels in public areas and on private lands, utilizing durable light fixtures and minimal mounting heights that minimize objectionable off-site glare.

14-3201. APPLICABILITY

1. General

Unless exempted, the provisions of this section shall apply to residential, nonresidential and mixed-use development.

2. Public and Private Lighting Distinguished

For the purposes of this section, public light poles and fixtures shall refer to lighting intended to illuminate rights of way or streets and private lighting fixtures shall refer to lighting intended to illuminate private parking areas and access drives.

14-3202. DEFINITIONS

Architectural Lighting - Exterior lighting that is designed to highlight structures, plantings or significant architectural features in a direct or indirect fashion.

Awning - A structure made of wood, cloth, vinyl or other flexible material affixed to a building for decoration or protection from the elements.

Canopy - A permanent, but not completely enclosed structure, that may be attached or adjacent to a building for the purpose of providing shelter to people or automobiles or a decorative feature on a building wall.

Façade - The exterior wall on the front, side or rear elevation of the building regardless of whether the building side faces a street.

Foot-candle - A unit of measurement referring to illumination incident to a single point at finished grade. One foot-candle is equal to one lumen uniformly distributed over an area of one square foot.

Glare - The reflection or harsh, bright light and the physical effect resulting from high luminance's or insufficiently shielded light sources to cause annoyance, discomfort or loss in visual performance and visibility.

Hue - The visible color emitted from an artificial source of exterior lighting.

Lighting, Private - Exterior lights and lighting fixtures intended to illuminate private on-site parking areas, access drives and other on-site areas.

Lighting, Public - Exterior lights and lighting fixtures intended to illuminate public street and other rights of way.

Lumen - A unit of luminous flux. One foot-candle is one lumen per square foot and is roughly equivalent to the light emitted by a 60 watt light bulb. Lumen output values shall be the initial lumen output ratings of a lamp.

Morristown Utility Systems (MUS) – The governing agency of the Morristown Power Systems, Morristown Water Systems and FiberNet.

Pedestrian-scale Lighting - Devices intended to provide exterior lighting that are lower in height than typical street lighting and located proximate to pedestrian areas such as sidewalks, open space areas or plazas.

Uniformity Ratio - A measurement of the relative difference in illumination values, at ground level, between differing exterior lighting sources on a single parcel of land.

14-3203. GENERAL STANDARDS FOR EXTERIOR LIGHTING

1. Lighting Plan Required

A Lighting Plan shall be submitted with an application for review of high-density residential, commercial and industrial developments.

2. Hours of Illumination

It is recommended that nonresidential development on lots adjacent to existing residential development use a minimum amount of exterior lighting after 11:00 P.M. or during non-operating hours, except lighting that is necessary for security or emergency purposes. Such lighting may be activated by motion sensor devices, photocells or time-clocks. For the purposes of this sub-section, lighting “necessary for security or emergency purposes” shall be construed to mean the minimum amount of exterior lighting necessary to illuminate possible points of entry or exit into a structure, to illuminate exterior walkways or to illuminate outdoor storage areas.

3. Illumination Direction

With the exception of street and security lighting provided by Morristown Utility Systems, all lighting shall:

- a. Be arranged to minimize glare and reflection upon adjacent lands;
- b. Be aimed or directed to preclude light projection beyond immediate objects intended to be illuminated;
- c. Not distribute light onto surrounding lands beyond an angle of 35 degrees from a vertical plane; and
- d. Use low-wattage architectural lighting for upwardly-directed lighting intended to illuminate structures or landscape elements.

4. Equipment and Location

- a. Public lighting poles or light standards shall be of a type approved by Morristown Utilities System. The final installation location and quantity of all street lights shall be determined by Morristown Utility Systems.
- b. Private lighting poles may be located within landscaped areas of planting islands, but in no such instance shall poles be located in a manner that conflicts with required landscape such as canopy trees.
- c. Ground-oriented, pedestrian-scale lighting shall be considered as an alternative to pole-mounted fixtures along pedestrian walkways.
- d. No exterior lighting shall have any blinking, flashing or fluttering lights or other illuminating device that has a changing light intensity, brightness or color.

5. Maximum Lighting Height

a. Public Lighting Fixtures in Residential and Nonresidential Areas

The height and style of public lighting fixtures serving residential and nonresidential uses shall be exempt from the standards in this subsection.

b. Private Lighting Fixtures in Nonresidential Areas

- i. For nonresidential developments with structures three stories or less in height, private fixtures shall not exceed twenty (20) feet in height, measured from finished grade to highest part of fixture or pole assembly. Light fixtures shall not exceed sixteen (16) feet in height within fifty (50) feet of residential dwelling units or vacant single-family residentially-zoned land that is either platted, has a Preliminary Plat or Site Plan approval that has not expired. Security lighting provided by Morristown Utility Systems is exempt from this requirement.
- ii. For nonresidential developments with structures greater than three stories, private fixtures shall not exceed thirty (30) feet in height, measured from finished grade to highest part of fixture or pole assembly. Light fixtures shall not exceed sixteen (16) feet in height within fifty (50) feet of residential dwelling units or vacant single-family residentially-zoned land that is either platted, has a Preliminary Plat or Site Plan approval that has not expired. Security lighting provided by Morristown Utility Systems is exempt from this requirement.

6. Shielding

a. Interior

No interior light source shall be positioned, aimed or configured so as to result in the light source being visible from land occupied by existing residential development.

b. Canopies

Within a canopy structure, lenses of light sources shall be flush with the canopy or recessed.

c. Awnings

Awnings or canopies used for building accents over doors, windows or similar features shall not be internally illuminated (i.e., from underneath or behind the awning).

7. Light levels

All lighting shall have minimum intensities and uniformity ratio consistent with recommendations in the *Lighting Handbook* of the illuminations Engineering Society of North America (ESNA) or such higher intensities as approved by Morristown Utility Systems, and shall be designed and located so that the illumination measured in foot-candles at the finished grade shall take reasonable measures to achieve the recommended illumination levels in Table 7a, Minimum and Maximum Illumination Values. The illumination shall take into account changes in finished grade, walls, building, pavement composition, traffic levels, visibility, economics, and other existing or proposed site conditions.

Table 7a: Minimum and Maximum Illumination Values (in foot-candles)

Use	Minimum Light Levels in Parking Lots	Maximum Average Illumination in Parking Lots	Maximum Illumination at Property Line (excluding rights of way)	Maximum Illumination at Right of Way
Agricultural	None	2.5	1.0	2.0
Residential	0.2	1.0	1.0	1.0
Commercial, Retail, Office, Industrial, Mixed-uses and Institutional (including athletic fields)	0.2	2.5	1.0	2.0

8. Uniformity Ratios

In order to maintain uniformity in light levels across a development and prevent or minimize dark areas, the ratio of maximum to minimum lighting levels on a given site or parcel of land as measured in foot-candles at ground level shall not exceed fifteen-to-one (15:1) in residential developments or ten-to-one (10:1) in the nonresidential and mixed-use developments. Parking lots shall maintain the same uniformity ratios as the principal use they serve.

9. Hue

Metal halide, color corrected mercury-vapor, color corrected high-pressure sodium and low-pressure sodium are allowable forms of exterior lighting; however, for private fixtures, different types of light color shall not be mixed within a development site.

14-3204. WALL-MOUNTED LIGHTS

Wall-mounted lights shall be screened by the building's architectural features or contain a 45 degree cutoff shield to prevent the light source from being visible from any adjacent residential property or public street right of way. Nothing in this subsection shall prevent the use of sconces or other decorative lighting fixtures provided that the source of illumination is not visible from adjacent lands used or zoned for residential purposes and provided that the maximum illumination values comply with the standards in Table 7a, Minimum and Maximum Illumination Values.

14-3205. FLOODLIGHTS AND SPOTLIGHTS

Floodlights and spotlights shall be selected, located, aimed and shielded so that direct illumination is focused exclusively on a portion of the building façade or other intended site feature and away from adjoining lands or the right of way. On-site lighting may be used to accent architectural elements of buildings. Such lighting shall be installed in a fixture that is shielded so that no portion of the light bulb extends below the bottom edge or above the top edge of the shield and the main beam from the light source is not visible from adjacent lands or adjacent right of way. Floodlights or other type of lighting attached to light poles that illuminate a nonresidential site or building(s) are prohibited.

14-3206. EXEMPTIONS FOR A SECURITY PLAN

Government facilities, parks and open areas, public safety and other uses where sensitive or dangerous materials are stored may submit to the Planning Department a Site Security Plan requesting exterior lighting that deviates from the standards in this subsection. The Planning Department shall approve the Site Security Plan, or approve it with conditions, upon a finding:

1. Necessary for Public Safety

The deviation from the standards in this subsection is necessary for the adequate protection of the public;

2. Site or Area Conditions

The condition, location or use of the land, or the history of activity in the area, indicates the land or any materials stored or used on it are in significantly greater danger of theft or damage, or members of the public are at greater risk for harm than on surrounding land; and

3. No Significant Adverse Effect

The deviation from the standards in this subsection indicated in the Site Security Plan is the minimum required and will not have a significant adverse effect on neighboring lands.

14-3207. ILLUMINATION OF OUTDOOR SPORTS FIELDS, COURTS AND PERFORMANCE AREAS

In addition to the requirements of Table 7a, Minimum and Maximum Illumination Values, lighting of outdoor sports fields, courts and performance areas shall comply with the following standards:

1. All lighting fixtures shall be equipped with a glare control package (e.g., louvers, shields or similar devices) and the fixtures shall be aimed so that their beams are directed and fall within the primary playing or performance area; and
2. The hours of operation for the lighting system for any game or event shall not continue more than one hour after the end of the game or event.

14-3208. SIGN LIGHTING

Lighting fixtures illuminating signs shall comply with the standards of this subsection and Chapter 29, Sign Ordinance. Such fixtures shall be aimed and shielded so that direct illumination is focused exclusively on the sign face.

14-3209. SEASONAL LIGHTING

Seasonal lighting displays are permitted on a temporary basis not to exceed ninety (90) days.