

TITLE 9
CHAPTER 3
OUTDOOR LIGHTING

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9-3-1: PURPOSE AND INTENT

- A. Outdoor lighting is provided for a variety of purposes to the benefit of modern society. For work or recreation, it enables people to see essential detail in order that they may undertake their activities at night. It facilitates the safety or security of persons or property, for example, through lighting on roads and pathways. It may be used to emphasize features of architectural or historical significance, and to light parks and gardens. It is used for advertising or display to promote products or services, or to call attention to commercial premises by means of area lighting or signs.
- B. It is the intent of this chapter to preserve, protect and enhance the lawful nighttime use and enjoyment of any and all property through the use of appropriate lighting practices and systems. Such individual fixtures and lighting systems are designed, constructed and installed to control glare and light trespass, minimize obtrusive light, conserve energy and resources while maintaining safety, security and productivity, and curtail the degradation of the nighttime visual environment. (Ord. 01-03-27, 3-27-2001)

9-3-2: DEFINITIONS

The following words and phrases used in this chapter shall have the following meaning unless a different meaning clearly appears from the context:

CUTOFF ANGLE (OF A LUMINAIRE):	The angle, measured up from the nadir, between the vertical axis and the first line of sight at which the bare source is not visible.
FOOT-CANDLE:	A unit of illuminance amounting to one lumen per square foot.
FULLY SHIELDED:	Outdoor light fixtures shielded or constructed so that no light rays are emitted by the installed fixtures at angles above the horizontal plane. This means that the shield is not flush or parallel with the light source or bulb. This is referred to in this document as a cutoff fixture.
GLARE:	The sensation produced by luminance within the visual field that is sufficiently greater than the luminance to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance and visibility.
ILLUMINANCE:	The quantity of light, or luminous flux, arriving at a surface divided by the area of the illuminated surface, measured in lux or foot-candles.
INSTALLED:	The initial installation of "outdoor light fixtures", as defined in this section, following the effective date hereof, but shall not apply to those outdoor light fixtures installed prior to such date.
LIGHT TRESPASS:	Light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited (also called spill light).
LUMEN:	A unit of light measurement.
LUMINAIRE:	A complete lighting unit consisting of a lamp or lamps, together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.
LUMINANCE:	The physical quantity corresponding to the brightness of a surface (e.g., a lamp, luminaries, sky or reflecting material) in a specified direction. It is the luminous intensity of an area of the surface divided by that area.
LUX (lx):	The SI unit of illuminance. One lux is one lumen per square meter.
OBTRUSIVE LIGHT:	Spill light which, because of quantitative, directional or spectral context, gives rise to annoyance, discomfort, distraction or a reduction in the ability to see essential information.
OUTDOOR LIGHT FIXTURES:	Outdoor artificial illuminating devices, outdoor fixtures, lamps and other devices, permanent or portable, used for illumination or advertisement. Such devices shall include, but are not limited to, search, spot or floodlights for:

- A. Buildings and structures, including canopies and overhangs;
- B. Recreational areas;
- C. Parking lot lighting;
- D. Landscape lighting;
- E. Billboards and signs;
- F. Street lighting;
- G. Display and service areas.

SPILL LIGHT: Light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited (also called light trespass). (Ord. 01-03-27, 3-27-2001)

9-3-3: CONFORMANCE WITH APPLICABLE CODES AND ORDINANCES:

All outdoor artificial illuminating devices shall be installed in conformance with the provisions of this chapter and applicable provisions of other city ordinances. Where there is conflict between the provisions of this chapter and other city ordinances, the most restrictive shall govern. (Ord. 01-03-27, 3-27-2001)

9-3-4: APPROVED MATERIALS AND METHODS OF INSTALLATION

- A. Required; Alteration: The provisions of this chapter are not intended to prevent the use of any material or method of installation not specifically prescribed by this chapter, provided any such alternate has been approved. The planning commission may approve any such alternate; provided, that the proposed design, material or method:
 - 1. Provides approximate equivalence to the specific requirements of this chapter; or
 - 2. Is otherwise satisfactory and complies with the intent of this chapter.
- B. Shielding: All outdoor light fixtures, except those exempted by section 9-3-7 of this chapter, and those regulated by subsection C of this section, shall be fully shielded as required in subsection C of this section.
- C. Requirements for Shielding: The requirements for shielding light emissions from outdoor light fixtures shall be as set forth in table 1. Shielding of sign, landscape or building facade lighting shall be set forth in subsections 9-3-5A and 9-3-6F of this chapter. Vegetation shall not be considered as a shield. (Ord. 01-03-27, 3-27-2001)

(see following page)

Table 1: Requirement For Shielding

<u>Fixture Lamp Type</u>	<u>Shielded</u>
Low pressure sodium ¹	Fully
High pressure sodium	Fully
Metal halide ²	Fully
Fluorescent ³	Fully
Quartz ⁴	Fully
Incandescent greater than 100W	Fully
Mercury vapor	Not permitted
Fossil fuel	None
Glass tubes filled with neon, argon, krypton ⁵	None

9-3-5: ON SITE LIGHTING

- A. Building/Wall Mounted and Freestanding: Building/wall mounted and freestanding exterior area lighting shall be directed down and fully screened away from adjacent properties. Sign, landscape and building facade luminaire that are noncutoff shall be equipped with glare shields, visors, barn doors, or similar shielding accessories that restrict direct illumination to within the perimeter of the object being illuminated.
 - 1. Building mounted lighting, plaza lighting, open space lighting, parking lot lighting and landscape lighting; the top of such fixtures shall not exceed thirty feet (30') in height from grade (including the pole base).
 - 2. Recreational field lighting shall be exempt from the height requirement.
- B. Commercial Installations: Details of all commercial exterior lighting installations require approval by the planning commission prior to installation.
- C. Other Alternatives: Other lighting alternatives which meet the intent of items above may be used with prior written approval from the planning commission. (Ord. 01-03-27, 3-27-2001)

Notes from Table 1:

¹ This light source is monochromatic and is the most energy efficient of all. It is a possible choice when used with a quality fixture that controls the light output. LPS lighting should be mixed with another light source for color rendering.

² Metal halide lamps shall be in enclosed luminaires.

³ Warm white natural lamps are preferred to minimize detrimental effects.

⁴ For the purposes of this chapter, quartz lamps shall not be considered an incandescent light source.

⁵ Outdoor advertising signs of the type constructed of translucent materials and wholly illuminated from within do not require shielding.

9-3-6: PROHIBITIONS

- A. **Recreational Facility:** No public outdoor recreational facility shall be illuminated after eleven o'clock (11:00) P.M., except to conclude any recreational or sporting event or other activity conducted at a ballpark, outdoor amphitheater, arena, or similar facility in progress prior to ten thirty o'clock (10:30) P.M. No private outdoor recreation facility shall be illuminated after ten o'clock (10:00) P.M.
- B. **Outdoor Building, Landscaping And Signs:** The unshielded (per subsection F of this section) outdoor illumination of any building or landscaping is prohibited except with incandescent fixtures with lamps of 100 watts or less. Freestanding advertisement signs with internal lighting are permitted. All illuminated outdoor advertising signs shall be equipped with an automatic time controller that prevents the operation of the lighting fixtures between the hours of eleven o'clock (11:00) P.M. and sunrise. Businesses open twenty four (24) hours a day are exempt from this curfew.
- C. **Mercury Vapor:** The installation of mercury vapor fixtures is prohibited.
- D. **Searchlights:** Searchlights used for advertising or entertainment purposes are prohibited past ten o'clock (10:00) P.M.
- E. **Light Trespass Deemed Nuisance:** Outside lighting such as lamps, bulbs, lights and all other devices for producing artificial light which shine or reflect light onto or into a neighboring residence or property so as to annoy or disturb the persons inhabiting or using such property is hereby declared to be a nuisance and is unlawful and prohibited. Investigation and enforcement by the city of violations of this chapter shall be only upon written complaint signed and submitted by the aggrieved complaining party. The maximum maintained illuminance levels permitted at property lines is set forth in table 2 as follows:

Table 2: Maximum Foot-Candles At Property Lines

<u>Application</u>	<u>Horizontal Foot-Candles Measured At Grade</u>
Property line adjoins a public roadway or public right of way	0.5 foot-candles
Property line adjoins a nonresidential property	0.3 foot-candles
Property line adjoins a residential property	0.1 foot-candles

- F. **Upward Directional Light:** All upward directed sign, building or landscaping lighting is prohibited, unless equipped with glare shields, visors, barn doors, or similar shielding accessories that restrict direct illumination to within the perimeter of the object being illuminated.

- G. Degree of Floodlight or Spotlight: Any unshielded (per subsection F of this section) floodlight or spotlight, must be aimed no higher than forty five degrees (45°) above straight down.
- H. Noncutoff Wall Packs: Noncutoff wall packs are prohibited.
- I. Drop Lenses: Drop lenses that change a luminaire from cutoff to noncutoff are prohibited.
- J. Change to Noncutoff: Tilting of existing or new fixtures that change a cutoff fixture to noncutoff is prohibited. (Ord. 01-03-27, 3-27-2001)

9-3-7: EXEMPTIONS

- A. Nonconforming Fixtures: Outdoor light fixtures installed prior to the effective date hereof are exempt from the provisions of this chapter; provided, however, that no change in use, replacement, structural alteration, or restoration of outdoor light fixtures shall be made unless it thereafter conforms to the provisions of this chapter. Routine maintenance activities shall be allowed and include the following: replacement of lamps, replacement/repair of damaged or inoperative luminaire components such as ballasts, igniters, lenses, reflectors, refractors, sockets, or photo cell controls.
- B. Fossil Fuel Light: Fossil fuel light produced directly or indirectly by the combustion of natural gas or other utility type fossil fuels is exempt from the provisions of this chapter.
- C. Special Conditions: For street lighting in a right of way or to address security concerns on public property, the River Heights City Council may grant a special exemption to the requirements of this lighting ordinance. (1-2013, 1-8-13)
- D. Construction Lighting: Lighting necessary for construction is exempt from the provisions of this chapter, provided said lighting is temporary and is discontinued immediately upon completion of the construction work.
- E. Emergency Lighting: Emergency lighting by police, fire and rescue authorities is exempt from this chapter.
- F. Holiday Lighting: Holiday lighting is exempt from this chapter. (Ord. 01-03-27, 3-27-2001)

9-3-8: APPLICATIONS (COMMERCIAL ONLY)

- A. Evidence of Compliance: Any person applying for a building, electrical or sign permit to install outdoor lighting fixtures shall, as a part of said application, submit evidence that the proposed work will comply with this chapter.
- B. Content of Application: The application shall contain, but shall not be limited to, the following:

1. Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamps, supports, or other devices.
2. Description of the illuminating devices, fixtures, lamps, supports and other devices. This description shall include, but is not limited to, manufacturer's catalog cuts, foot-candle plots (in tenths, example: 0.3), and drawings, including sections where required. Foot-candle plots shall include listings of average, maximum, minimum, maximum/minimum, average/minimum values, as well as plots.
3. The above required plans and descriptions shall be sufficiently complete to enable the city engineer to readily determine whether compliance with the requirements of this chapter will be secured. If such plans and descriptions cannot enable this ready determination, by reason of the nature or configuration of the devices, fixtures or lamps proposed, the applicant shall submit evidence of compliance by certified test reports as performed by a recognized testing lab. (Ord. 01-03-27, 3-27-2001)

9-3-9: ISSUANCE OF PERMIT FOR LIGHTING ON PRIVATE PROPERTY

- A. Commercial: Prior to issuance of a building, electrical or sign permit, the planning commission shall determine that the submitted plans and details for said permit are in conformance with this chapter. The stamping of the plans and the signature of the city engineer and the date of the signature shall indicate that the plans are in conformance. Should the applicant desire to substitute outdoor light fixtures or lamps to be installed on private property after a permit has been issued, the applicant shall submit all changes to the: planning commission for approval, with adequate information to assure compliance with this chapter.
- B. Residential: A permit is not required. All residential installations, however, shall comply fully with this chapter. (Ord. 01-03-27, 3-27-2001)

9-3-10: MAXIMUM LIGHTING LEVELS

All installations are allowed to meet the Illumination Engineering Society of North America minimum standards, plus thirty percent (30%), maximum. (Ord. 01-03-27, 3-27-2001)

9-3-11: APPEALS

Except for street lighting within the right of way as provided in section 9-3-7 of this chapter, the appeal procedures of the city zoning ordinance shall apply. (Ord. 01-03-27, 3-27-2001)

9-3-12: CONFLICTS

Whenever regulations in this chapter require higher standards than are required in other ordinances or laws, the provisions of this chapter shall govern. Whenever regulations of other ordinances or laws require higher standards than the provisions of this chapter, then said other ordinances shall govern. All ordinances or parts of ordinances in conflict with any of the provisions of this chapter are hereby repealed. (Ord. 01-03-27, 3-27-2001)

9-3-13: RESPONSIBILITY; ENFORCEMENT; PENALTY

- A. Responsibility for Violations: It shall be the duty of all architects, contractors, subcontractors, builders and other persons having to do with the establishment of any use of land or the erection, altering, changing or remodeling of any building or structure to see that a proper permit has been granted before such work is begun. Any such architect, builder, contractor or other person doing or performing any such work without a permit having been issued is in conflict with the requirements of this chapter and shall be deemed guilty of violation of this chapter in the same manner and to the same extent that the owner of the premises or the persons for whom the use is established, or for whom such buildings are erected or altered, and shall be subject to the penalties herein prescribed for violation.
- B. Mandatory and Prohibiting Nature of Provisions:
1. It is unlawful for any person, firm or corporation to perform any act prohibited or refuse to perform any act required by this chapter, or to fail to comply with any valid order issued by the building inspector or his or her designate pursuant to the provisions of this chapter.
 2. Any person, firm or corporation violating any of the provisions of this chapter shall be guilty of a class B misdemeanor and shall be punished as provided in section 1-4-1 of this code. (Ord. 01-03-27, 3-27-2001)
- C. Start of Work Without Permit; Penalty; Emergencies:
1. Fee Increase: Whenever any construction or work for which a permit is required by this chapter is started or commenced without obtaining the prescribed permit, the fees specified for the permit may be increased by the zoning administrator up to a double fee, but the payment of such increased fees shall not relieve any persons from fully complying with the requirements of this chapter in the execution of the work nor from any other penalties prescribed herein. (Ord. 01-03-27, 3-27-2001; amd. 2005 Code)
 2. Exception; Emergency Work: This provision shall not apply to emergency work when it shall be proved to the satisfaction of the building inspector that such work was urgently necessary and that it was not practical to obtain a permit therefor before the commencement of the work. In all such cases, a permit must be obtained as soon as it is practical to do so, and if there be an unreasonable delay in obtaining a permit, a double fee, as herein provided, shall be charged. (Ord. 01-03-27, 3-27-2001)