

OUTDOOR LIGHTING ORDINANCE



With very helpful, expert guidance from IDA Program Manager Dr. John Barentine, the Town staff and Fountain Hills Dark Sky Association worked to update the community's Outdoor Lighting Ordinance. While the existing ordinance already had excellent shielding requirements, the updates focused on correlated color temperature and lumen density guidelines.

At the same time, updates to the Sign Regulations were also proposed to set a maximum of 100 nits for the nighttime brightness of electronic message boards.

The updated lighting and sign ordinances were unanimously approved by the Town Council on November 3, 2016.

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OUTDOOR LIGHTING CONTROL

Sections:

- 8.01 Administration.**
- 8.02 General Requirements.**
- 8.03 Prohibitions.**
- 8.04 Permanent and Temporary Exemptions.**
- 8.05 Procedures for Compliance.**

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Section 8.01 Administration

- A. Purpose:** It is the intent of this chapter to require lighting practices and systems that minimize light pollution, glare, and light trespass, and conserve energy while maintaining adequate light for nighttime safety, utility, security and productivity. Good modern lighting practices can achieve these goals and at the same time preserve the scenic view of the night sky, minimize lighting that would have a detrimental effect on astronomical observations, and prevent lighting that would be offensive to neighboring and near-by properties.
- B. Conformance with Applicable Code and Zoning Ordinance Provisions:** All outdoor artificial illuminating devices shall be installed in conformance with the provisions of this chapter, any other applicable provisions of the Zoning Ordinance and Building Codes of the Town of Fountain Hills, which may hereafter be enacted, as applicable.
- C. Approved Material and Methods of Installation:** 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 in writing by the Town of Fountain Hills Zoning Administrator upon consultation with the Chief Building Official and finding that the proposed design, material or method:
1. Provides approximate equivalence to the applicable requirements of this chapter and applicable building codes; or
 2. Is otherwise satisfactory and complies with the intent of this chapter.

Section 8.02 General Requirements

- A. Shielding:**
1. All outdoor light fixtures with light output greater than 2250 initial lumens shall be fully shielded. fixtures with light output ranges from 1125 to 2250 initial lumens shall be at least partially shielded.

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2. Outdoor advertising signs constructed of translucent materials and wholly illuminated from within do not require shielding. It is recommended that existing mercury vapor fixtures either be replaced or be quipped with a filter whose transmission is less than ten (10) percent total emergent flux at wavelengths less than forty-four hundred (4400) angstroms. "Total emergent flux" is defined as that between three thousand (3000) and seven thousand (7000)-angstrom units.
- B. **Correlated Color Temperature (CCT):** In order to minimize the detrimental effects of blue light, the correlated color temperature (CCT) of any outdoor lighting fixture shall not exceed 3000K.
 - C. **Light Trespass:** Outdoor lighting fixtures shall be sufficiently shielded and aimed such that spillage of light onto adjacent properties is minimized and glare from the light emitting and/or reflecting parts of a luminaire is not visible from any adjacent property.
 - D. **Holiday Lighting Decorations:** Temporary outdoor holiday lighting decorations are permitted for a reasonable period before a holiday and are not subject to the requirements in this section 8.02. Holiday lighting in residential neighborhoods shall be minimized after 11:00 p.m. and shall be removed within two weeks after the holiday.

Section 8.03 Prohibitions

- A. **Searchlights:** The operation of searchlights is prohibited.
- B. **Recreational Facilities:** No outdoor recreational facility, public or private, shall be illuminated after 11:00 P.M. except to conclude a specific recreational, sporting or other activity that began prior to 10:00 P.M. Recreational facility lighting shall make appropriate use of adaptive controls when possible.
- C. **Outdoor Building or Landscaping Illumination:** The unshielded outdoor illumination of any building, landscaping, signage or other purpose, is prohibited except with light fixtures of less than 1125 lumens. The combined outdoor unshielded lighting shall not exceed 1125 lumens within a 25-foot radius. All illumination shall be so arranged as not to shine upon or reflect onto adjoining properties.
- D. **Exterior Lighting:** All lighting for off-street parking or loading areas or for the external illumination of buildings or signs shall be directed away

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from and shielded from any adjacent residential property and shall not detract from driver visibility on adjacent streets.

- E. Mercury Vapor:** All mercury vapor fixtures are prohibited.
- F. Signage:** All outdoor signage lighting shall conform to Section 8.02 and shall be of such size and color as not to interfere with traffic or limit visibility of adjoining property. Lighting on any sign not wholly illuminated from within shall conform to Section 8.02 and be directed towards the ground. Regulations relating to signs with intermittent, scrolling or flashing illumination are in Chapter 6, Section 6.08.CC.

Section 8.04 Permanent and Temporary Exemptions

- A. Nonconforming Fixtures:** All outdoor light fixtures existing and fully installed prior to the effective date of this chapter are nonconforming indefinitely; provided, however, that no change in use, replacement, structural alteration, or restoration (after abandonment of outdoor light fixtures) shall be made unless it thereafter conforms to the provisions of this chapter.
- B. Governmental Facilities:** Those facilities and lands owned, operated or protected by the U.S. federal government, the State of Arizona, or Maricopa County, are exempted from all requirements of this chapter. Voluntary compliance with the intent of this chapter at those facilities is urged. Town outdoor lighting facilities shall adhere to the following requirements:
 - 1. When new town-owned buildings and other facilities are constructed, or new town rights-of-way are established, the installation of new outdoor lighting fixtures shall be allowed only when (a) a specific need related to a hazardous nighttime situation is identified by the town or (b) lighting is deemed necessary as a matter of ensuring public health, safety and welfare, and is in the best interest of the town and the community.
 - 2. When existing town-owned buildings, other facilities and town rights-of-way are modified by physical alterations and/or by a change of use, the installation of new outdoor lighting fixtures beyond existing installations shall be allowed only when (a) a specific need related to a hazardous nighttime situation is identified by the town or (b) lighting is deemed necessary as a

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matter of ensuring public health, safety and welfare, and is in the best interest of the town and the community.

- 3.** Except as set forth in this section, with the establishment of any new residential subdivision where street rights-of-way will be dedicated to the town, the town shall not allow the installation of streetlights. However, in cases where it is determined that street lighting is deemed necessary in public rights-of-way for the health, safety or welfare of pedestrians, bicyclists and/or motorists, the installation of street lighting shall be permitted. All lighting so installed shall: (a) be fully shielded; (b) meet correlated color temperature requirements; (c) make use of appropriate adaptive controls; and (d) be subject to curfews as directed by the town council.
- C. Special Exemption:** The Zoning Administrator may grant a special exemption from the requirements of Section 8.03 only upon a written finding that there are extreme geographic or geometric conditions warranting the exemption and that there are no conforming fixtures that would suffice.
- D. Utility Exemption:** Utility companies entering into a duly approved contract with the Town of Fountain Hills in which they agree to comply with the provisions of these regulations, shall be exempt from applying for and obtaining a permit for the installation of outdoor light fixtures.
- E. Temporary Exemptions:**

 - 1.** Request: Any individual may submit a written request (on a form approved by the Zoning Administrator) for a temporary exemption to the requirements of this chapter, such exemption to be valid for days, renewable at the discretion of the Zoning Administrator.
 - 2.** The request for temporary exemption(s) shall provide:

 - a.** Specific exemptions(s) requested.
 - b.** Type and use of outdoor light fixture for which exemption is sought.
 - c.** Duration of the requested exemption.
 - d.** Type of lamp(s) and calculated lumens.

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- e. Total wattage of lamp(s).
- f. Proposed location.
- g. Previous temporary exemptions, if any.
- h. Physical size of outdoor light fixture and type of shielding to be provided.

- 3. In addition to the above data, the Zoning Administrator may request any additional information, which would assist in evaluating the request.
- 4. The Zoning Administrator shall make a decision on the application and shall notify the applicant of the decision within 10 days of receipt of a complete application. The exemption shall be granted upon a determination that the type and use of the outdoor light fixture is the for the shortest period of time and the minimum lumens needed for the intended purpose and shall not be detrimental to persons residing or businesses operating within a reasonable distance from the use location.

F. Special Events: Events that are approved through the special event permit, special use permit, temporary use permit, or administrative use permit processes may include specified exemptions from this chapter for the duration of the event, but only if they satisfy the criteria set forth above in subsection (E)(4).

Section 8.05 Procedures for Compliance

A. Application:

- 1. Any individual applying for a building permit or use permit who intend to install outdoor light fixtures shall, as a part of the permit application, submit evidence that the proposed light fixtures will comply with this chapter.
- 2. All other individuals intending to install outdoor landscape lighting or decorative lighting consisting of light fixtures under 375 lumens are exempt from the requirements of this section.

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B. Contents of Application: The application for building permit or use permit shall contain, but shall not necessarily be limited to the following, all or a portion of which may be part of or in addition to the information required elsewhere in this Zoning Ordinance.

1. Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamps, supports, etc.
2. Description of the illuminating devices, fixtures, lamps, supports, etc. shall include at least the initial lumen output, shielding planned, and manufacturer's catalog cuts, and drawings (including Sections where required). Additional information may be required, as deemed necessary by the Zoning Administrator.
3. If an applicant desires to use an outdoor light fixture that is different from what is in the application, the applicant shall submit the requested change to the Zoning Administrator with adequate information to allow a determination in compliance with this chapter.

The above required plans and descriptions shall be sufficiently complete to enable the reviewing department to readily determine compliance with the requirements of this chapter. If such plans and descriptions do not readily enable this determination, the applicant shall submit evidence of compliance by certified test reports as performed by a recognized testing lab.

C. Additional Requirements For Site Plan Application: for all site plans filed on or after December 5, 2016, the following lumen density caps shall apply:

1. In commercial, industrial, lodging, and multi-family zoning districts, unshielded lighting on a property shall not exceed:
 - A. 50,000 lumens per net acre in commercial, industrial, and lodging zoning districts.
 - B. 20,000 lumens per net acre in multi-family zoning districts.
2. To prevent over-lighting in commercial, industrial, lodging, and multi-family zoning districts, the total amount of lighting on a property, both shielded and unshielded, shall not exceed:

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- A. 100,000 lumens per net acre in commercial, industrial, and lodging zoning districts.
 - B. 50,000 lumens per net acre in multi-family zoning districts.
3. In single-family residential zoning districts and for single-family residential uses, outdoor lighting is not subject to a lumen density cap, but is subject to shielding requirements as set forth in section 8.02(A).

NOTE: The final two pages of the Fountain Hills Sign Regulations were modified to address the proposed updates for electronic message boards. Those two pages follow.

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SIGN REGULATIONS

CC. Electronic Message Center: Signs with intermittent, scrolling or flashing illumination, including electronic message center signs, are permitted in Commercial and Industrial zoning districts only; provided, however, that churches and schools may display such signs in residential districts. All electronic message center signs are subject to the following:

1. There shall be no moving or flashing green or red features that could be mistaken as traffic control devices.
2. Intermittent Changes:
 - a. Any changes to the face or copy of the sign must have a minimum of eight (8) second interval between changes.
 - b. Between the hours of 10:00 p.m. – 6:00 a.m., except for time and temperature.
 - (1) There shall be no changes to the face or copy of the sign; and
 - (2) The background must be darker than the text.
3. Led signs / electronic message displays are subject to all of the following:
 - a. Between the hours of 10:00 p.m. And 6:00 a.m.:
 - (1) Led signs shall not exceed the maximum lumination level of 100 nits; and
 - (2) Signs located adjacent to residential zoning districts shall be turned off.
 - b. Signs shall be equipped with photo cell sensors that are factory locked to:
 - (1) Adjust the sign to an appropriate light level during daylight hours; and
 - (2) DIM the sign at night to the required nit level as stated in this section.
 - c. An affidavit from the manufacturer or other evidence of compliance satisfactory to the town, attesting to the photo cell sensor equipment lock as required above shall be submitted with the sign permit application.
 - d. The electronic message center portion of the sign shall not have a white background and shall be turned off when the business is closed.
 - e. Signs shall include timers that automatically turn off the digital display.