### ARTICLE 3.15 OUTDOOR LIGHTING

Sec. 3.15.001 Definitions

In this article:

Camp Bullis. U.S. Military training base in north Bexar County.

Camp Bullis Buffer Zone. An area that extends three (3) miles in all directions from the Camp Bullis boundaries including all of the City and its extraterritorial jurisdiction (Exhibit 1).

Direct light. Light emitted directly from the lamp, off of the reflector diffuser, or through the refractor or diffuser lens, of a luminary.

Exempted luminaries. Luminaries that were existing, in place, and operational prior to the effective date of this article.

Footcandle (FC). A unit of light measurement equal to one lumen per square foot.

Full cutoff (FCO). Describes a luminaire light distribution where 100 candela per 1,000 lamp lumens (ten percent) may emit at all vertical angles beginning at 80 degrees up from nadir to less than 90 degrees, and zero candela per 1,000 lamp lumens (zero percent) is allowed at 90 degrees (horizontal plane) and all angles above. This applies to all horizontal angles around the luminaire. A full cutoff luminaire is also fully shielded.

Fully shielded. A lighting fixture constructed in such a manner that all light emitted by the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane as determined by photometric test or certified by the manufacturer. A fully shielded fixture is not necessarily full cutoff.

Glare. A luminance produced by bright sources in the field-of-view superimposed on the image in the eye reducing contrast and hence visibility.

IESNA (or IES). An acronym for the Illuminating Engineering Society of North America. The IESNA makes recommendations for outdoor lighting, but does not set outdoor lighting community standards, which are set through local ordinances.

Illuminance. The quantity of light arriving at a surface measured in lux or footcandles.

Intermittent lighting. Luminaries that do not remain on for an extended period of time.

Lumen. A unit of luminous flux. One footcandle is one lumen per square foot. For the purpose of this regulation, the lumen-output values shall be the initial lumen output ratings of a lamp. The lumen rating associated with a given lamp is generally indicated on its packaging or may be obtained from the manufacturer.

Luminary. 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.

Nadir. The direction pointing vertically down from the lowest light emitting part of the luminaire:



Outdoor lighting. Nighttime illumination of an outside area or object by any manmade device that is located outdoors and produces light.

Temporary outdoor lighting. Lighting for a specific unusual purpose of an outside area or object by any manmade device that produces light for a period of less than seven (7) days, with at least 30 days passing before being used again.

Trespass lighting. Light emitted by a luminary which falls outside the boundaries of the property on which the luminary is sited.

Sec. 3.15.002 Lighting Requirements

(a) Generally. All public and private outdoor lighting installed after the effective date of this article in the Camp Bullis buffer zone shall be in conformance with the requirements established by this section.

(b) Control of glare. Any luminary that is aimed, directed, or focused so as to cause direct light from the luminary to be directed toward residential buildings on adjacent or nearby land, or to create glare perceptible to persons operating motor vehicles on public ways is prohibited. Such luminary must be redirected or its light output controlled as necessary to eliminate such conditions.



(c) Residential lighting.

(1) No residential trespass lighting may exceed one and one-half footcandles at the property line, with the exception of intermittent lighting.

(2) Intermittent lighting must be of the motion sensor type that stays on for a period of time not to exceed five (5) minutes and has a sensitivity setting that allows the luminary to be activated only when motion is detected on the site.

(3) It is highly recommended that all residential lighting also comply with subsections (d)(1)(A)-(C), (G) and (H) below.

(d) Commercial lighting.

(1) Generally.

(A) No lighting installed on any commercial property may fit the unacceptable fixture designation.

(B) For lighting horizontal tasks such as roadways, sidewalks, entrances and parking area, fixtures must meet full cutoff criteria (no light output emitted above 90 degrees at any lateral angle around the fixture).

(C) NEMA-head fixtures, a.k.a. barn lights or dusk-to-dawn lights, shall not be permitted on any commercial property unless fitted with a reflector to render them full cutoff.

(D) Park style or period style fixtures shall not be permitted on any commercial property unless fitted with a reflector to render them full cutoff.

(E) Wallpack fixtures shall not be permitted on any commercial property unless fitted with a reflector to render them full cutoff.

(F) All trespass lighting shall not exceed two and one-half footcandles measured at the property line.

(G) Floodlight fixtures must be aimed so as to prevent direct radiation of light into the open sky at any angle above the horizontal plane as shown and verified:



(H) All outdoor lighting on commercial property shall be full cutoff.

(2) Service stations and other outdoor facilities:

(A) Outdoor sales and service stations canopies must utilize canopy lights that are fully recessed into the canopy or are fully shielded by the canopy.

(B) The following average maintained illuminance levels for service stations must not be exceeded:

|  |  |
| --- | --- |
| Service Station Component  | Lighting Level  |
|  |  |
| Approach  | 2.0 fc  |
| Driveway  | 2.0 fc  |
| Pump island  | 10.0 fc  |
| Building facade  | 3.0 fc  |
| Service areas  | 3.0 fc  |
| Landscape highlights  | 2.0 fc  |

(e) Parking lot lighting. All parking lot lighting must be full cutoff shielding and minimum illuminance levels. The recommended construction material for parking lots within the Camp Bullis buffer zone is bituminous concrete, better known as asphalt, to minimize reflected light from the lot surface.

(f) Outdoor advertising signs.

(1) Lighting fixtures used to illuminate an outdoor advertising sign must conform to the requirements specified in this section.

(2) Outdoor advertising signs constructed of translucent materials and wholly illuminated from within do not require shielding. Dark backgrounds with light lettering or symbols are preferred.

(3) Internally illuminated panel signs with translucent letters and symbols on an opaque background have no operational time restrictions, but should be strongly considered as unnecessary lighting. Internally illuminated panel signs with dark letters and symbols on a white background fall under the category of unnecessary lighting.

(4) Examples of necessary outdoor lighting include lighting associated with flag display, safety, and security.

(5) After closing hours, businesses must reduce outdoor lighting between the hours of 11:00 p.m. and sunrise by turning off any unnecessary lights. Any business that is open 24 hours a day must comply with the lighting levels set out in this article at all times when it is open for business.

(g) Local street lighting.

(1) Local streetlight illumination must follow the guidelines in subsection (3) below unless a licensed professional engineer trained and experienced in the science of illumination engineering deems other illumination levels more appropriate for existing conditions.

(2) All standard streetlights must utilize full cutoff optics (FCO) type luminaires that are installed level to the ground in two (2) intersecting perpendicular planes, and should be horizontally level in all directions.

(3) New ornamental streetlights must be classified as either IES full cutoff or IES cutoff as determined by a valid photometric report. This report must be generated for the specified model by a qualified testing lab (testing to IES standards) and must include a full vertical evaluation up through 180 degrees, otherwise that fixture will be unacceptable.

(h) Public roadway illumination. To the extent allowed by federal and state law, this section limits luminaries used for public-roadway illumination to a maximum height of 25 feet, the location of which may be positioned at that height up to the edge of any bordering property.

(i) Tower and structure lighting. Unless otherwise required by the Federal Communications Commission (FCC) or Federal Aviation Administration (FAA), towers or other structures requiring obstruction lighting at night must be of the minimum luminous intensity oscillating red in color.

(j) Other prohibited lighting. Unless authorized by City Council for a special event:

(1) The use of laser source light or any similar high intensity light, such as used for outdoor advertising or entertainment, when projected above the horizontal is prohibited; and

(2) The operation of searchlights for advertising purposes is prohibited.

Sec. 3.15.003 Exemptions

(a) The following types of outdoor lighting are exempt from the requirements of section 3.15.002:

(1) All outdoor lighting in place prior to the effective date of this article;

(2) Temporary lighting as needed by police, emergency medical technicians, and fire personnel, or for meteorological data gathering purposes; and

(3) Outdoor lighting that is owned or maintained for the purpose of illuminating:

(A) A tract of land that is maintained as a single-family residence and that is located outside the boundaries of a platted subdivision;

(B) A tract of land maintained for agricultural use;

(C) An activity that takes place on a tract of land maintained for agricultural use; or

(D) Structures or related improvements located on a tract of land maintained for agricultural use.

(b) Usage of luminaires that do not conform with section 3.15.002.

(1) Outdoor recreational facilities. No outdoor recreational facility shall be illuminated by nonconforming means from 11:00 p.m. local time to sunrise except to conclude a specific recreational activity already in progress.

(2) Outdoor display lighting. Display lighting using nonconforming outdoor luminaires with metal halide bulbs must not be used for security lighting after 11:00 p.m. local time to sunrise (or after closing hours if before 11:00 p.m. local time to sunrise).

(c) Maintenance and repair of luminaires that do not conform with section 3.15.002. Voluntary compliance with the following maintenance, repair, modified an/or upgrade provisions of this article are expected of the citizens of the City in an effort to enhance the military operations at Camp Bullis:

(1) Except for lamp replacement, no luminaire should be repaired and/or modified to perpetuate its existence unless the repair and/or modification maintains conformance or makes the luminaire conforming to this article.

(2) If a lamp is available that makes a luminaire conform, or progress towards conformance with this article's required illuminance level, then such a lamp should be utilized when the lamp is replaced.

(3) Spotlights and floodlights, with a total luminous flux greater than 1800 lumens, elevated above the ground on poles or buildings and used for area lighting should be adjusted so that their axis of illumination is at an angle not greater than 20 degrees measured from the vertical line between the fixture and the ground. This subsection applies only to spotlights and floodlights with adjustable mounts and does not apply to outdoor recreational facilities.

(Ordinance 180 adopted 1/15/09)

Sec. 3.15.004 Administration

(a) Enforcement.

(1) The City Manager or his designee shall administer the regulations adopted in this article. (Ordinance 180 adopted 1/15/09; Ordinance 2019-09, Exhibit A(F), adopted 8/1/19)

(2) The officer shall give written notice to the owner of the property on which an outdoor lighting violation as defined in this article exists.

(A) The notice shall state:

(i) The specific condition that constitutes a violation; and

(ii) That the person receiving notice must correct the violation no later than the 30th day after the date on which the notice is served.

(B) Failure to correct the violation will result in a class C misdemeanor being filed.

(C) Written notice/violation shall be served on the owner or his agent:

(i) In person or by registered or certified mail, return receipt requested;

(ii) If personal service cannot be obtained or the address of the owner or his agent is unknown, by posting a copy of the notice on the premises on which the nuisance exists and by publishing the notice in a newspaper with general circulation in the City two (2) times within 10 consecutive days;

(iii) If the occupier of the premises is not the owner or his agent, the occupier shall also be served with notice:

a. In person or by registered or certified mail; or

b. If personal service cannot be obtained, by posting a copy of the notice on the premises.

(3) The City may not approve any further plat, permit or plan for any subdivision that installs new street lighting that does not meet the street lighting standards of this article.

(b) Violations defined. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve or convert any illumination device of any type, or cause the same to be done, contrary to or in violation of any provision of this article. Any person, firm or corporation shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any provision of this article is committed, continued, or permitted.

(c) Penalties. Any person, firm, corporation, or association violating the provisions of this article shall be cited for a misdemeanor violation, and, upon conviction, shall be fined in any sum not more than five hundred dollars ($500.00), and each day of continued violation shall be a separate offense.

Sec. 3.15.005 Variances and Temporary Exemptions

(a) Variances. City Council may grant a variance to the requirements of this article where a literal enforcement of the provisions will result in unnecessary hardship. A variance request must be submitted to the City Council in writing that sets out the basis for the request. No variance can be granted unless:

(1) It will not be contrary to public interest;

(2) It will be in harmony with the spirit and purposes of this article;

(3) The plight of the owner of the property for which the variance is sought is due to unique circumstances existing on the property, and the unique circumstances were not created by the owner of the property and are not merely financial; and

(4) The variance will not substantially weaken the general purposes of this article.

(b) Temporary exemption. Any individual may submit a written request to the City Council for a temporary exemption from the requirements of this article. The request for the exemption must contain the following information:

(1) Proposed use and location of the outdoor light requested.

(2) Type of lamp or lamps to be used, including manufacturer's part number and initial lumens.

(3) Type of light fixture used, including manufacturer's model number and specification (cut) sheets indicating photometric distribution data stated in isofootcandle diagrams.

(4) Starting and ending dates for temporary exemption.

(5) Contact information including name of requester, address and telephone number.

(Ordinance 180 adopted 1/15/09)