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Section 1600 Lighting

A. Purpose and Intent

The purpose and intent of this Regulation is to establish outdoor lighting standards that reduce the impacts of glare, light trespass and overlighting; promote safety and security; encourage energy conservation; and to protect the public's ability to view the night sky.

This Regulation is intended to reduce the problems created by improperly designed and installed outdoor lighting. It is intended to eliminate problems of glare, minimize light trespass by establishing regulations which limit the area of certain kinds of outdoor light fixtures can illuminate and by limiting the total allowable illumination of lots in Shelbyville, Simpsonville and unincorporated areas of Shelby County, Kentucky.

These lighting standards are designed to ensure personal safety and prevent motor vehicle and pedestrian conflicts by reducing the negative effects of glare, light pollution and light trespass.

B. Applicability

The outdoor lighting regulations contained herein shall apply in all zoning districts to all exterior lighting and to interior lighting to the extent that it impacts the outdoor environment, including lighted signs, but excluding public roadway lighting.

All new public and private outdoor lighting installed or the replacement of existing outdoor fixtures in Shelbyville, Simpsonville and unincorporated areas of Shelby County shall be in conformance with the requirements established in this Regulation and approved by the Administrative Official and/or the Planning Commission.

Replacement of a fixture shall mean a change of fixture type or change to the mounting height or location of the fixture. Routine lighting fixture maintenance, such as changing lamps or light bulbs, ballast, starter, photo control, housing, lenses and other similar components, shall not constitute replacement and shall be permitted provided such changes do not result in a higher lumen output.

Outdoor lighting fixtures lawfully existing prior to adoption of this Regulation, that do not conform to the provisions of this Regulation shall be deemed to be a lawful nonconforming use and may remain. A nonconforming lighting fixture that is changed to or replaced by a conforming lighting fixture shall no longer be deemed nonconforming, and thereafter such lighting fixture shall be in accordance with the provisions of this Regulation.

C. Exceptions

1. Lighting required by the FAA for air traffic control and warning purposes.
2. Lighting in the public right-of-way installed or approved by the appropriate jurisdiction.
3. Lighting required temporarily for emergency purposes or repairs in the right-of-

- way, which must comply with applicable Federal, State and Local regulations.
4. Holiday lighting fixtures.
5. Agricultural Use lighting, except as prohibited herein.
6. Lighting installed by a governmental entity for the benefit of public health, safety, and welfare.

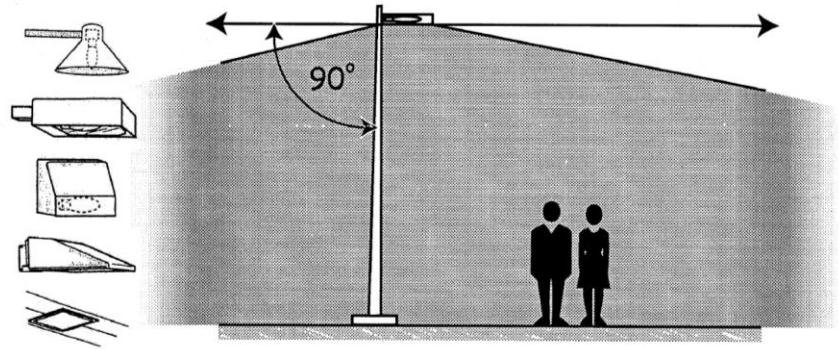
D. Prohibited Lighting

1. Blinking, flashing or changing intensity lights including those proposed for signage.
2. Lighting that could be confused with a traffic control device.
3. Lighting of a type, style or intensity determined to interfere with the safe flow of traffic.
4. Strobe lights, searchlights, beacons and laser light, or similar upward or outward oriented lighting.
5. Exposed neon, exposed LED, or similar exposed lighting.
6. Lighting creating a public hazard, including lighting that creates disability glare particularly where such disability glare has a detrimental effect on motor vehicle traffic.
7. Lights mounted on poles for the purpose of illuminating the building façade.
8. High-intensity floodlighting except as approved for sports facility lighting.
9. Wall pack light fixtures that are not classified as full cutoff light fixtures.

E. General Requirements

Outdoor lighting shall meet the following standards:

1. Lighting Plans – All lighting plans shall be approved by the Administrative Official and/or the Planning Commission according to a submitted Lighting Plan as regulated by these Regulations and the requirements of Article XIII – Development Plans, Sections 1330(h) and 1340(g).
 - a. Lighting Plan Requirements – The following outdoor lighting information must be included with all lighting plan submissions:
 - The location and height of all parking lot and walkway light poles, canopy lighting, building and ground mounted lighting fixtures;
 - Illustrations and cut sheets of each style of lighting fixtures proposed and that they will comply with full cutoff requirements;
 - A photometric diagram showing predicted maintained lighting levels of the proposed lighting fixtures; and
 - Certification statement signed by the owner/developer certifying that all required outdoor lighting provisions will be met and maintained.
2. Full Cut-Off Lighting Fixtures – Light fixtures, except as otherwise permitted herein, are required to be full cutoff as defined by the Illuminating Engineers Society of North America (IESNA). Full cutoff light fixtures result in a light distribution pattern where no light is permitted at or above a horizontal plane at the bottom of the fixture.

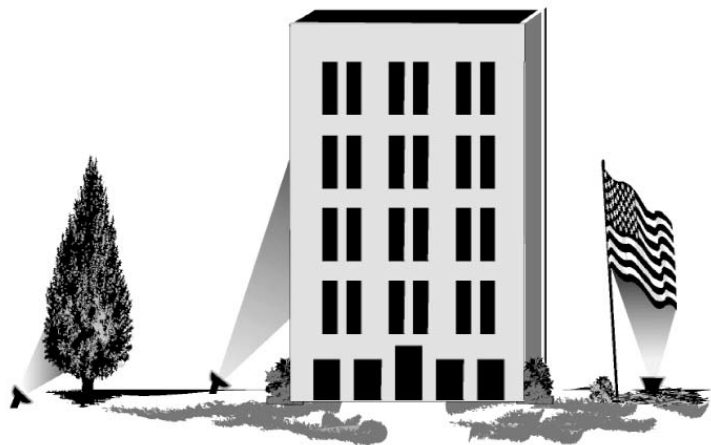


3. Light Intensity at Property Line – The maximum light level shall be 0.5 maintained footcandle at any property line in a residential district, or on a lot, tract or parcel occupied by a dwelling, and 1.0 maintained footcandles at any public street right-of-way or property line in a non-residential district.
4. Disability Glare – All outdoor light fixtures must be aimed, located and maintained to prevent disability glare, which is a form of glare that causes reduced visibility and visual performance. Light fixtures shall be installed and maintained in a manner consistent with the intended application and as approved in the Lighting Plan. Full cutoff fixtures shall not be tilted or aimed in a manner that results in light distribution above the horizontal plane.
5. Canopy and Drive-Thru Lighting – Light fixtures, associated with canopies and drive-thru facilities, including but not limited to fuel islands, hotels, and bank, fast food restaurants and pharmacy drive-thru facilities shall be full cutoff or mounted so that the bottom of the lens is recessed or flush with the bottom surface of the canopy. All light emitted from the canopy shall be substantially confined to the ground directly beneath the perimeter of the canopy. No lighting of any kind, except as permitted by sign regulations, shall be allowed on the top or sides of a canopy. The design of the canopy in terms of height above grade, and the spacing between the fixtures within the canopy, shall be such that the lighting level under the canopy does not exceed 24 footcandles when measured horizontally at grade.
6. Outdoor Display Area Lighting – Outdoor display areas shall have a maximum point of illuminance of 24 footcandles. All light fixtures shall be full cutoff fixtures. Forward throw fixtures are required within 25' of any public street right-of-way.
7. Roof and Canopy Lighting – Outdoor lighting fixtures that are enclosed in clear, white, off-white or yellow casing are not allowed on the roofs of buildings or on the sides of canopies. Internally illuminated signs are an exception to this rule and are discussed below.
8. Internally Illuminated Signs – Internally illuminated signs, except those which bear a state or federal registered trademark, must have an opaque background and translucent text and symbols, or must have a translucent background that is not white, off-white or yellow in color. An opaque background is a background through which light cannot penetrate, and a translucent background or text is a background or text through which light can penetrate.
9. Pole Lighting – Poles supporting light fixtures designed to illuminate parking areas and drive entrances shall be round unless an alternative is shown to be architecturally superior. Pole supports/raised foundations may not exceed a

height of 30" from grade. Maximum parking lot pole height shall be 25'.

10. Landscape and Walkway Lighting – Bollards or similar light fixtures that do not exceed 4 feet in height, intended to illuminate landscape features or walkways, may be permitted as part of the overall lighting plan. Lamps shall not exceed 900 lumens for any single lamp. A maximum of 2 fixtures per bollard and 1 lamp per fixture is recommended.
11. Parking Lot Lighting Curfews – On all non-residential developed lots which contain a minimum of 10 parking lot light poles, parking lot lighting levels for ground surface parking lots shall be reduced by at least 50% of full operational levels within one hour after the close of business. Lighting levels may be reduced by turning off 50% of the parking lot lights or by dimming parking lot lighting levels to no more than 50% of the levels used during business or activity hours within 30 minutes of the close of business, or by some combination thereof. Given that certain minimum lighting level is recommended for safety and security purposes, this provision does not require parking lot lighting levels to be reduced to less than 0.2 foot-candles as measured horizontally at the surface on which the light pole is mounted.
12. Outdoor Recreation/Sports Facility Lighting – All exterior sports facility lights used for the purpose of illuminating the playing area shall be turned off following the conclusion of the final event of the night. The remainder of the facility lighting, except for reasons of security, shall be turned off within one hour after the event, and remain extinguished until one hour prior to the commencement of the next event.
13. Lamp Types – All outdoor light fixtures should utilize one of the following lamp types: metal halide, induction lamp, compact fluorescent, incandescent (including tungsten-halogen), or high-pressure sodium. Alternatives are permitted provided they are demonstrated to be more effective for the proposed use based on IESNA recommendations.
14. Single-family Residential and Agricultural – Lighting in single-family residential areas and agricultural areas should be limited to 2400 lumens per fixture unless shielded. Lighting used for security purposes should be placed on motion sensors. All lighting in single-family residential areas and agricultural areas shall not produce light trespass off the properties, including, but not limited to, glare, uplighting and backlighting.

15. Architectural and Landscape Lighting – Outdoor lighting used to illuminate flags, statues, signs or other objects mounted on a pole, pedestal or platform, spotlighting or floodlighting used for architectural or landscape purposes, shall use full cut-off or directionally shielded lighting fixtures that are aimed and controlled so that the directed light is substantially confined to the object intended to be



Lighting used for architectural/landscaping lighting shall be aimed and controlled so that light is confined, as much as possible, to the objects that are intended to be lit.

so that the directed light is substantially confined to the object intended to be

illuminated. Building facades may be illuminated to a maximum of 20 foot-candles as measured on the façade. Lights mounted on poles for the purpose of illuminating the building façade are not permitted.

16. Construction Lighting – Lighting for temporary construction projects shall consist of lighting sufficient to safely illuminate the site without producing glare onto adjacent properties and shall cease at 10:00 PM EST/EDT except in an emergency situation.
17. Signage Lighting – All electronic or digital display unit message boards shall have installed ambient light monitor, and shall at all times allow such monitors to automatically adjust the brightness level of the electronic board based on ambient light conditions. Maximum brightness levels for electronic or digital display boards shall not exceed 5,000 nits when measured from the board's face at its maximum brightness, during daylight hours and 500 nits when measured from board face at its maximum brightness between dusk and dawn, i.e., the time of day between sunset and sunrise.

The Planning Commission reserves the right to direct the developer and/or owner to conduct studies by a professional engineer using state of the art engineering methods to determine findings of fact as to objectionable lighting emanating from any existing or potential land use.

Section 1601 Noise

A. Purpose and Intent

Noise produced by any land use, excluding Agricultural and Residential zones, shall conform to the following regulations for the purpose of minimizing friction between land uses of lesser or equal intensity and protecting the environment of Shelby County.

B. General

1. All proposed or expanding developments except in Residential and Agricultural zones shall include a decibel analysis as regulated and required by the following:
 - a. A vicinity site plan depicting current land uses and zoning districts within 1000 feet of the property boundary of the site;
 - b. A noise contour overlay map depicting the anticipated noise as measured in decibels (dB) using a sound level meter that conforms to specifications published by the American National Standards Institute (specifications for Sound Level Meters S1.4 - 1971, or the latest edition of such noise standards, shall be used) of the proposed development;
 - c. When the noise contour overlay map depicts projected outdoor noise exceeding 55 dB or indoor noise exceeding 40 dB within 1000 feet of the property boundary should it overlap a land use of lesser intensity, effective noise abatement measures shall be incorporated with the Final Development Plan in text format. The Final Development Plan Map shall depict outdoor noise contours not to exceed 55 dB and indoor noise not to exceed 40 dB within the 1000 foot perimeter of the development property boundary.
2. The Planning Commission reserves the right to direct the Developer and/or owner to conduct studies by a professional engineer using state of the art engineering methods to determine findings of fact as to objectionable noise emanating from any existing or potential land use.

Section 1602 Odor/Odororous Matter

A. Purpose and Intent

Potential objectionable odors emitted by industrial, commercial and other land uses which rise to the level of intensity so as to be construed as commercial or industrial-like shall be regulated by Kentucky Administrative Regulations (KAR) Title 401, Chapters 50-65; Sections 1(a)(b)(c)(d) and Section 2 as follows to protect the general health, safety and welfare of the citizens of Shelby County.

B. General

1. Objectionable odors and odororous matter shall be kept to a minimum through technology and site planning strategies to the best degree possible as regulated by the requirements of this Article and Article XIII, Development Plans, and shall include the following as a minimum:
 - a. The PRELIMINARY DEVELOPMENT PLAN shall detail, in text format and on a vicinity map, where odors that could be objectionable, are likely to originate, and include the reasonable distance that odors can be detected. The PRELIMINARY DEVELOPMENT PLAN shall include the prevailing winds, the types of odors expected to be emitted, and shall comply with all State and Federal regulations which shall be cited in the text submitted with the PRELIMINARY DEVELOPMENT PLAN;
 - b. The vicinity map shall include all land uses (existing and proposed) and zoning districts within 2000 feet of the property line of the site. Should objectionable odors/odororous matter be expected to travel farther than 2000 feet, the Enforcement Officer shall determine the distance to be depicted on the Vicinity Map;
 - c. All reasonable mitigation measures shall be taken by the developer/owner to minimize anticipated objectionable odors/odororous matter and shall be submitted in text and Vicinity Map format with the FINAL DEVELOPMENT PLAN as required by ARTICLE XIII, DEVELOPMENT PLANS.
2. The Planning Commission reserves the right to direct the developer and/or owner to conduct studies by a professional engineer using state of the art engineering methods to determine findings of fact as to objectionable odor/odororous matter emanating from any existing or potential land use.