

LONDON GROVE TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

ORDINANCE NO. 95

AN ORDINANCE TO AMEND THE LONDON GROVE TOWNSHIP ZONING
ORDINANCE OF 1995, AS AMMENDED, TO PROVIDE FOR THE
REGULATION OF OUTDOOR LIGHTING.

Section 1706 OUTDOOR LIGHTING

A. Purpose

1. To require and set minimum standards for outdoor lighting to:
 - a. Provide for and control lighting in outdoor public places where public health, safety and welfare are issues.
 - b. Protect drivers and pedestrians from the disabling glare of non-vehicular light sources.
 - c. Protect neighbors and the night sky from nuisance glare and light trespass from poorly shielded, aimed, placed, applied or maintained light sources.
 - d. Promote energy efficient lighting design and operation.
 - e. Protect and retain the intended character of London Grove Township.

B. Applicability

1. All uses within the Township where there is outdoor lighting, including but not limited to residential, multi-family residential, commercial, industrial, public recreational/sports, institutional uses and signs, architectural and landscape lighting.
2. Criteria for agricultural uses shall be in accordance with Section E of this Ordinance.
3. Temporary decorative/seasonal lighting is exempt from all but the glare control requirements of this Ordinance.

C. Definitions

1. Footcandle – A unit of incident light quantity measurable with an illuminance meter, a.k.a. footcandle meter or light meter.
2. Full Cutoff - A term that describes a lighting fixture from which no light is emitted at or above a horizontal plane through the bottom of light-emitting aperture portion of the fixture and no more than 10% of the lamp's intensity is emitted at any angle within 10 degrees below that horizontal plane, at all lateral angles around the fixture.
3. Glare – The sensation produced by excessive direct or reflected light that causes annoyance, discomfort or loss in visual performance of the eye. Sensitivity to glare increases with the viewer's age.
4. Illuminance – The quantity of incident light measured with a light meter in footcandles.
5. Light Trespass – Light, measured in footcandles, projected beyond the boundaries of the property on which the installation is sited.
6. Lumen – In the context of this ordinance, the published light-output rating of a lamp

D. Criteria

1. Illumination Levels
 - a. Lighting, where required or permitted by this Ordinance or as otherwise required by the Township, shall have intensities and uniformity ratios in accordance with the current recommended practices of the Illuminating Engineering Society of North America (IESNA).

2. Lighting Fixture Design

- a. Fixtures shall be of a type and design appropriate to the lighting application and aesthetically acceptable to the Township.
- b. For the lighting of predominantly horizontal surfaces such as, but not limited to, roadways, areas of vehicular and pedestrian passage, merchandising and storage areas, automotive-fuel dispensing facilities, automotive sales areas, loading docks, cul-de-sacs, active and passive recreational areas, building entrances, sidewalks, paths, site entrances and parking areas, fixtures shall be aimed straight down and shall meet IESNA full-cutoff criteria. Any fixture whose aggregate wattage does not exceed the output of a standard 40-watt incandescent lamp, e.g., 500 lumens, shall be exempt from this requirement.
- c. For the lighting of predominantly non-horizontal surfaces such as, but not limited to, facades, landscaping, signs, fountains, displays, flags and statuary, where the use of fixtures meeting IESNA full-cutoff criteria is not practical or possible, fixtures shall be equipped with aiming and/or light-redirecting devices such as shields, visors, baffles, skirts or hoods when necessary to direct or redirect offending light distribution.
- d. The use of floodlighting, spotlighting, non-cutoff wall-mounted fixtures, internally illuminated decorative globes and spheres, lanterns and other fixtures not meeting IESNA full-cutoff criteria shall be permitted only with the approval of the Township, based upon acceptable justification and achievement of suitable glare control. Any fixture whose aggregate wattage does not exceed the output of a standard 40-watt incandescent lamp, e.g., 500 lumens, shall be exempt from this requirement.
- e. NEMA-head fixtures, a.k.a. “barn lights” or “dusk-to-dawn lights,” which create nuisance glare as viewed from another property or roadway, shall not be permitted unless fitted with a reflector or shield to render them full cutoff.

3. Control of Nuisance and Disabling Glare

- a. All outdoor lighting, whether or not required or permitted by this ordinance, on private, residential, commercial, industrial, municipal, recreational or institutional property; shall be aimed, located, designed, fitted and maintained so as not to present a hazard to drivers or pedestrians by impairing their ability to safely traverse and so as not to create a nuisance by projecting or reflecting objectionable light onto a neighboring use or property.
- b. The use of floodlights, spotlights and omni-directional fixtures that create glare as viewed from another property or roadway shall require approval by the Township. All such fixtures, regardless of whether for residential or non-residential applications, shall be so installed or aimed that they do not project their output into the windows of neighboring residences, adjacent uses, skyward or onto a public roadway or pedestrian way.
- c. Lighting for commercial, industrial, public recreational and institutional uses, including but not limited to lighting for parking areas, roadways, pathways, facades, signs and landscaping, shall be extinguished by automatic means within ½ hour after the close of business. Where after-hours lighting is deemed reasonably necessary for safety and/or security, the intensity of such lighting shall not exceed 33% of the intensities permitted by this ordinance during normal business hours.
- d. Only the United States and state flags, and no others shall be permitted to be illuminated from dusk till dawn and such flags shall be illuminated by sources with a beam spread no greater than necessary to illuminate the flags. Flag lighting sources shall not exceed 10,000 lumens per flagpole.
- e. Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as cutoff fixtures, shields and baffles, and appropriate application of fixture mounting height, wattage, aiming angle and placement.

- f. In no case shall the illumination cast by a source or sources onto an adjacent residential property exceed 0.1 *vertical* footcandle measured line-of-sight, from any point on the adjacent residential property.
- g. Externally illuminated signs and billboards shall be lighted by fixtures mounted at the top of the sign or billboard and aimed downward. Such lighting, when off-premises of the establishment being advertised, shall be automatically extinguished between the hours of 10 p.m. and dawn.
- h. Directional fixtures, e.g., floodlights or spotlights, for such applications as façade, fountain, feature, sign, billboard, recreational and landscape illumination, when specifically approved by the Township for use, shall be aimed so as not to project their output beyond the objects intended to be illuminated.
- i. Canopy lighting for such applications as gas/service stations, bank and fast-food drive-throughs, shall be accomplished using flat-lens full-cutoff fixtures aimed straight down and shielded in such a manner that the lowest opaque edge of the fixture shall be below the light source.

4. Installation

- a. Electrical feeds for fixtures mounted on poles shall be run underground, not overhead.
- b. Poles supporting lighting fixtures for the illumination of parking areas and located directly behind parking spaces, shall be placed a minimum of five (5) feet outside paved area, curbing or tire stops, or on concrete pedestals at least thirty (30) inches high above the pavement, or suitably protected by other approved means.
- c. Except as specifically approved for recreational lighting as permitted by the Township and listed in Subdivision and Land Development Ordinance, fixtures meeting IESNA full-cutoff criteria shall not be mounted in excess of twenty (20) feet above finished grade.
- d. Fixtures not meeting IESNA “full-cutoff” criteria, when specifically approved by the Township, shall not be mounted in excess of sixteen (16) feet above grade.

5. Maintenance

- a. Lighting fixtures and ancillary equipment shall be maintained so as always to meet the requirements of this Ordinance.

E. Agricultural Criteria

- 1. For agricultural uses, the following criteria shall apply:
 - a. No lighting shall be permitted that projects glare onto an adjacent residence
 - b. No lighting shall be permitted that creates a hazard by projecting glare onto a public right-of-way
 - c. Floodlights and other directional fixtures that create glare as viewed from an adjacent residential use or street, unless required for a seasonal harvesting operation, shall be extinguished by no later than 11 p.m. or controlled by a motion sensor

F. Plan Submission

- 1. For Variance, Special Exception, Conditional Use and Building Permit applications where site lighting is required or proposed, lighting plans shall be submitted to the Township for review and approval where requested, and shall include:
 - a. A site plan or plans of the site, complete with all structures, parking spaces, building entrances, traffic areas (both vehicular and pedestrian), vegetation that might interfere with lighting, and adjacent uses that might be adversely impacted by the lighting, and a layout of all proposed fixtures by location, mounting height and type. The submittal shall include in addition to area lighting, exterior architectural lighting, building-entrance lighting, landscape lighting, etc.

- b. 10'x10' illuminance-grid (point-by-point) plot of maintained footcandles, plotted out to 0.0 footcandles, which demonstrates compliance with the light trespass, intensity and uniformity requirements as set forth in this Ordinance or as otherwise required by the Township. The lamp lumen rating and type, maintenance (light-loss) factors and IES file names used in calculating the illuminance levels shall be documented on the plan.
 - c. Description of the proposed equipment, including fixture catalog cuts, photometrics, glare reduction devices, lamps, on/off control devices, mounting heights, pole foundation details and mounting methods.
 - d. Landscaping plans shall contain lighting fixture locations and shall demonstrate that the site lighting and landscaping have been coordinated to minimize conflict between vegetation and intended light distribution, both initially and at vegetation maturity.”
2. When requested by the Township, applicant shall also submit a visual-impact plan that demonstrates appropriate steps have been taken to mitigate on-site and off-site glare and light trespass and taken to retain the Township's intended character.

G. Compliance Monitoring

1. Safety Hazards

- a. If appropriate officers or agents of the Township judge a lighting installation creates a safety or personal-security hazard, the person(s) responsible for the lighting shall be notified in writing and required to take remedial action.
- b. If appropriate corrective action has not been effected within thirty (30) days of written notification, the Township may commence legal action.

2. Nuisance Glare and Inadequate Illumination Levels

- a. When appropriate officers or agents of the Township judge an installation produces unacceptable levels of nuisance glare, direct skyward light, excessive or insufficient illumination levels or otherwise varies from this Ordinance, the Township may cause written notification of the person(s) responsible for the lighting and require appropriate remedial action.
- b. If appropriate corrective action has not been effected within thirty (30) days of notification, the Township may commence legal action.

H. Nonconforming Lighting

1. Any lighting fixture or lighting installation existing on the effective date of this Ordinance that does not conform with the requirements of this Ordinance, shall be considered as a lawful nonconformance subject to the following:
- a. Unless minor corrective action is deemed by the Township to be an acceptable alternative, a nonconforming lighting fixture or lighting installation shall be made to conform with the applicable requirements of this Ordinance when:
 - (1) It is deemed by the Township to create nuisance glare, as defined in G.2.a. above, or a safety hazard
 - (2) It is replaced or relocated
 - (3) The use is abandoned or there is a change in use of the property on which the area being illuminated is located

Passed 10/13/04