

Plan Board and Staff

Recommended Modifications to the Lighting Ordinance

Section 30-344

~~Language proposed to be removed (Strike through/red)~~

New proposed regulations (underline italic/Blue)

*Modifications after the City Plan Board meeting (**underline double underline/Green**)*

Recommended Modifications to the Lighting Ordinance, Section 30-344.

Section 30-23 Definitions

Fully shielded

A lighting fixture constructed and installed 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 as determined by photometric test or certified by the manufacturer. Any structural part of the light fixture providing this shielding must be permanently affixed.

Area lighting

Lighting of predominately horizontal surfaces such as, but not limited to, parking areas, recreational areas, and building entrance walkways.

Accent lighting

Lighting of predominately non-horizontal surfaces such as, but not limited to, facades, fountains, displays, and statuary"

Glare:

The effect produced by a light source within the visual field that is sufficiently brighter than the level to which the eyes are adapted, to cause annoyance, discomfort, or loss of visual performance and ability

Disability Glare:

Glare resulting in reduced visual performance and visibility. It is often accompanied by discomfort.

Mounting Height:

Defined as the distance between the average grade and the bottom of luminous opening

Vehicular Canopy:

A roofed, open, drive-through structure designed to provide temporary shelter for vehicles and their occupants while making use of a business' services.

- **Sec. 30-344. - Outdoor lighting.**

(a) *Purpose.* To provide regulations for outdoor lighting that will:

- (1) Protect and promote the public health, safety, and welfare;
- (2) Promote safety and security in vehicular use areas;
- (3) Protect **neighbors**, adjacent properties, the environment, and the night sky from adverse lighting impacts such as light pollution, light trespass, glare, excessive lighting, and offensive light sources; ~~and~~
- (4) Promote energy and resource efficient lighting; and
- (5) Encourage the use of Crime Prevention Through Environmental Design (CPTED) fundamentals in the design of site lighting plans.

(b) *Applicability.*

~~All outdoor lighting uses within the city including, but not limited to, multi-family residential, commercial, industrial, public and private recreational and institutional uses, architectural, and landscape lighting.~~

These regulations shall apply to all outdoor lighting within the city related to the following:

- (1) New non-residential or multiple family development;
- (2) Repair and maintenance of outdoor lighting fixtures in any non-residential or multiple family development when the changes will alter the overall lighting design, such as changes to lighting intensities, glare, spillover and night sky exposure; and
- (3) Any new outdoor lighting fixtures on a site shall meet the requirements of this Code with regard to shielding, lamp types and the total outdoor light output. After the modifications are complete, lighting intensities shall not exceed the value that is on the site before the modification, or the standard permitted by this Code, whichever is larger.

A photometric plan/lighting plan in accordance with Section 30-344 (f) is required to demonstrate compliance:

(c) *Exemptions.*

- (1) Properties with a single-family or two-family dwelling.
- (2) Lighting for public rights-of-way, public streets, and approved private streets.
- ~~(3) Lighting necessary for emergency equipment and work conducted in the interests of law enforcement, fire rescue, storm debris clean-up or other similar public safety efforts.~~
- ~~(4) Lighting for construction, renovation, or repair of roads and utilities.~~
- ~~(5) Temporary general construction lighting, which shall be regulated in accordance with building construction standards and shall be valid during the active period of a building permit.~~
- ~~(6) Holiday decorative lighting.~~
- (7) Sign lighting, which is regulated elsewhere in this Land Development Code.
- (8) Lighting required by federal or state laws or regulations.
- (3) Fixtures with fully shielded light sources, so long as the total output of the fixture does not exceed 1800 lumens.
- (4) Fixtures with diffuse lensing, so long as the total output of the fixture does not exceed 900 lumens.
- (5) Point source, or other types of unshielded fixtures, so long as the total output of the fixture does not exceed 600 lumens
- (6) Low voltage landscape lighting; however, such lighting should be shielded in such a way as to eliminate glare and light trespass.

(d) *General requirements.*

- (1) *Luminaire design and operation.*
 - a. For the lighting of predominately horizontal surfaces such as, but not limited to, parking areas, recreational areas, and building entrances, luminaires shall be fully shielded full-cutoff fixtures and shall be aimed downwards.

- b. ~~For the lighting~~ Lighting of ~~of predominately~~ non-horizontal surfaces ~~such as, but not limited to, facades, landscaping, fountains, displays, and statuary, luminaires shall be shielded and~~ shall be designed, installed and aimed so as ~~to~~ not to project effective light output beyond ~~past~~ the object being illuminated, skyward, onto a public roadway, or onto adjacent uses.
- c. ~~e. Lighting shall be designed, located, aimed, shielded, and maintained so as to minimize light pollution.~~
- d. ~~d. Luminaires shall consist of lighting at least as energy and resource efficient as high performance LED lighting.~~
Luminaires used with the lighting plan shall be the most energy efficient light sources. Lamps used for site and exterior building lighting shall have an output greater than 50 lumens per watt. LED is the preferred option but may also include Fluorescent, Metal Halide, High Pressure Sodium and and Low Pressure Sodium.
- e. Controls shall be provided that automatically extinguish all outdoor lighting when sufficient daylight is available ~~using a control device or system such as a photoelectric switch, astronomic time switch or equivalent functions from a programmable lighting controller, building automaton system or lighting energy management system, all with battery or similar backup power.~~ Automatic lighting controls are not required for the interior of parking structures.
- f. ~~Vegetation and landscaping may be required to control glare and light trespass; however, vegetation screens shall be planted and maintained in a manner that does not obstruct security lighting. Where landscaping is used for light screening, it shall be in addition to the applicable landscaping requirements listed in article VIII of the Land Development Code. During development plan review, the technical review committee shall determine whether existing vegetation is adequate to meet the required screening needs or whether additional light screening vegetation is necessary to supplement the existing standards of article VIII.~~
- The placement of light poles in landscape islands is strongly discouraged. Poles may be placed within the perimeter and interior landscape strips in locations that avoid conflicts with existing and required trees. It is highly recommended that separate islands be created for placement of light poles. Notwithstanding the above, where special designs, tree separation, pole arm extensions and reduced pole heights are feasible, a pole may be placed within a landscape island after review and approval by the appropriate reviewing body.
- g. Except in emergencies by police, fire, medical personnel, aircraft warning lights or for meteorological data gathering purposes, ~~T~~the use of exposed light sources, search lights, flood lights, lasers, lighting or lights that pulse, flash, rotate or simulate motion for advertising or promotions is prohibited. No exceptions or waivers shall be permitted.
 (keep)

~~h. Low voltage landscape lighting; however, such lighting should be shielded in such a way as to eliminate glare and light trespass. Moved to C above~~

- i. The maximum mounting height of area lighting shall not exceed 30 feet when located within 75 feet of a single-family use or single-family zoning district.
- j. All sites shall not exceed an average vertical illuminance of 0.5fc at a height of 5 feet above the mounting height of the highest luminaire.
- k. Fixture placement, distribution, wattage, orientation, and mounting height shall be selected so as to minimize light trespass, light pollution, and glare, and to maximize effective use of light output.
- l. Lamps used for site and exterior building lighting shall have an efficiency greater than 50 lumens per watt. Additionally, fixtures shall have an LER greater than 30.

~~(2) Pole height~~

- ~~a. Except as otherwise regulated by this section, the height of luminaires shall not exceed 30 feet.~~
- ~~b. During approval of a development plan, building permit or special use permit, the appropriate reviewing board, city manager or designee may permit by special exception pole heights up to 50 feet provided the following conditions are met:

 - ~~1. The development for which the special exception is requested has a total floor area of 100,000 square feet or greater;~~
 - ~~2. Any property adjacent to the property for which a special exception is requested has a zoning that allows a similar use; and~~
 - ~~3. The special exception is requested for an area that is greater than 75 feet from any adjacent property that either contains a residential dwelling or that has a residential zoning district classification as established by section 30-41.~~~~

~~In granting the special exception, the city may impose any reasonable conditions, restrictions or limitations to preserve and promote the purpose and intent of this section.~~

(2) Light Pollution Requirements.

Two acceptable compliance paths for lighting design are outlined below. The prescriptive qualitative path places restrictions on fixture selection with the intent of minimizing light pollution. The performance quantitative path establishes a numerical standard dictating limits for light pollution, regardless of fixture selection.

- a. Qualitative Prescriptive Compliance Path:- Lighting plan submittal shall demonstrate compliance with the items below, except where previously defined exemptions apply.
 - 1. Area lighting luminaire design and operation- Luminaires shall be full-cutoff and shall be aimed downwards.
 - 2. Accent lighting luminaire design and operation- Luminaires shall be designed, installed and aimed so as to minimize or eliminate:

- i. The projection of light beyond the primary object being illuminated
 - ii. The projection of light skyward
 - iii. Lighting spill onto a public roadway or onto adjacent uses.
- 3. Directional fixtures, where the total output exceeds 3000 lumens, shall be directed to illuminate the target object in a downward direction, so as to minimize light pollution
- b. Quantitative Performance Compliance Path- Lighting plan submittal shall demonstrate compliance with the items below, except where previously defined exemptions apply.
 - 1. Light levels shall not exceed 0.5fc at a height of 30ft, or 5ft above the height of the highest luminaire, whichever is greater.

(3) *Illumination standards.*

- a. An applicant may submit a photometric plan in fulfillment of the purpose and intent of the Gainesville Lighting Ordinance by demonstrating compliance with the Lighting shall have illuminances, uniformities and glare control in accordance with the published standards of the Illuminating Engineering Society of North America (IESNA).
- b. Light levels, measured line-of-site, at the property line of the receiving property shall not exceed the following:
 - i. 1.0 fc for non-residential sites,
 - ii. 0.5fc for residential sites,
 - iii. 0.4 fc for nature parks, or
 - iv. 5.0 fc for public and private streets.
 - a. Where an alley of 20 feet or less separates a receiving property with a single-family use or zoning, light trespass shall be less than 2.0 fc at the nearest boundary of the alley.
 - b. Automobile dealers along the roadways listed below: Light levels measured line of site at the right-of-way line shall not exceed 10fc when more than 500 feet from single-family residential properties.
 - i. Along Main Street, north of NW 16th Avenue
 - ii. Along NW 39th Avenue between NE 2nd and NE 10th Streets
 - v. When parking is shared or when adjacent to an improved site of the same use light intensities within 30 feet of the subject site shall not be greater than existing levels or may be treated as part of the subject site. Proper authorization from adjacent property owner must be demonstrated.

- ~~b. Except as follows, light trespass onto adjacent property shall not exceed 1.0 footcandles measured line-of-sight from any point on the receiving property:~~
 - ~~1. Residential property. Light trespass onto any adjacent property that either contains a residential dwelling or that has a residential zoning district classification as established by section 30-41 shall not exceed 0.5 footcandles measured line-of-sight from any point on the receiving property.~~
 - ~~2. Nature parks. Light trespass onto any adjacent nature park shall not exceed 0.4 footcandles measured line-of-sight from any point on the receiving nature park.~~

(4) Glare Requirements

1. Fixtures utilizing directional optics and located adjacent to property boundaries shall be oriented in such a way as to minimize glare on to adjacent properties.

(e) Specific Illumination requirements.

In addition to the general requirements applicable to all outdoor lighting uses, ~~this subsection outlines the following additional~~ requirements for ~~the following~~ specific outdoor lighting uses or areas shall apply. If provisions in this subsection conflict with any of the general requirements, the provisions in this subsection shall prevail.

- (1) *Recreational lighting.* Lighting for outdoor recreational uses (including pole mounting heights above 30 feet, where appropriate) may be designed in accordance with the published standards of the Illuminating Engineering Society of North America (IESNA).
- (2) *Nature parks.* Buildings shall not be externally illuminated on any vertical faces fronting a nature park.
- (3) ~~*Building exteriors.* Lighting provided for the general security of areas such as, but not limited to, building entrances, stairways, ramps and main walkways shall not exceed an average horizontal illuminance of five footcandles at ground level, a uniformity ratio of 6:1, a maximum uniformity ratio of 10:1, and an average vertical illuminance of 0.2 footcandles measured five feet above the height of the luminaire.~~

Building Entrances, Exteriors and Site Security

Lighting shall be provided for the general security of areas such as, but not limited to, building entrances, stairways, ramps, main walkways, dumpsters, other site accessory structures and the pedestrian entrance and exit points of sites and vehicular use areas.

- a. Lighting levels at building entrances/exits and around buildings shall not exceed an average horizontal illuminance of 5.0 fcs at ground level, a uniformity ratio of 6:1 and a maximum uniformity ratio of 10:1. The lighting levels on pedestrian walkways and at pedestrian entrances and exits of the vehicular use areas of multiple-family developments shall maintain a minimum horizontal illuminance of 1.0 fc at ground level. External pedestrian walkways shall not exceed 0.2fcs at a distance 30 feet from the edge of the vehicular use area.
- b. There shall be a minimum horizontal illuminance of 1.0 fcs at ground level within 5 feet of dumpsters, site accessory structures and areas which are considered as indefensible spaces
- c. To ensure security, during the hours from dusk to dawn, developments subject to development plan review which do not operate after dusk, shall comply with the requirements of the ordinance. ~~Alternatively, an applicant may elect to maintain a 50% reduction of the ordinance requirement for the site. The development may also demonstrate that the site is fully secured and is not accessible by the general public and may request a waiver to defer from providing a full site lighting plan. an average minimum illuminance of 0.5fc, throughout the site. Businesses operating after dusk shall automatically reduce illuminance to security level intensities, 0.5fcs, one hour after the close of business or by 11:00pm, whichever is later.~~

d. Unimproved areas of a site may be so defined and excluded from the lighting plan but such areas must maintain security level lighting at an average of 0.5fc.

(4) *Vehicle Use Areas/Parking lots.*

- a. Lighting shall be uniform throughout the parking lot, with no dark patches or pockets, for safety and identification of features.
- b. ~~Luminaire locations shall not be in conflict with existing and proposed landscaping. (move to Landscaping Section)~~
- c. Except as provided in the next subsection, lighting shall maintain a minimum horizontal illuminance of 0.5 fcs ~~footcandles~~ at ground level and shall not exceed an average horizontal illuminance of 2.5 fcs ~~footcandles~~, a uniformity ratio of 5:1, and a maximum uniformity ratio of 15:1. An applicant may elect to use the building entrance and outdoor lighting standards on portions of vehicular use area within 30 feet of a building.
- d. ~~Parking lots within 75 feet of any adjacent property that either contains a residential dwelling or that has a residential zoning district classification as established by section 30-41 shall meet the following requirements:~~
 1. ~~Luminaires shall be full-cutoff fixtures from which no light is emitted at or above an angle of 80 degrees from the pole;~~
 2. ~~The height of luminaires shall not exceed 15 feet; and~~
 3. ~~Lighting shall maintain a minimum horizontal illuminance of 0.2 footcandles at ground level and shall not exceed an average horizontal illuminance of 1.0 footcandles, a uniformity ratio of 5:1, a maximum uniformity ratio of 10:1, and an average vertical illuminance of 0.1 footcandles measured five feet above the height of the luminaire.~~
- e. ~~Multiple family residential developments shall have additional lighting at the entrance and exit points of parking lots sufficient to light the area for pedestrians entering and exiting the parking area. Lighting levels at entrances and exits shall maintain a minimum horizontal illuminance of 1.0 footcandles at ground level.~~
- f. ~~Lighting shall be provided in accordance with this section throughout the nighttime hours of operation and/or use by the public of a business or facility. However, lighting shall be automatically extinguished no later than one hour after the close of business or facility operation and/or use by the public. After hours security lighting may be permitted when such lighting does not exceed 50 percent of the number of luminaires or the illumination level required or permitted during regular nighttime operation hours.~~

(5) *Parking structures.*

- a. Applicability. These standards for parking structures shall apply to any multilevel parking structure and any floor of a building, including but not limited to the first floor and/or basement level, used for parking or storage of vehicles. However, when either the top floor of a building used for parking or storage of vehicles or the top floor of a multilevel parking structure is uncovered and open to the sky, said floor shall be regulated in accordance with the standards for parking lots but shall have luminaires that do not exceed a height of 15 feet.

- b. Luminaires shall be full-cutoff, semi-cutoff and/or refractor high intensity discharge (HID) or LED fixtures. The exact type, configuration and placement of luminaires shall be designed to prevent glare, cavern effect and to facilitate vertical illumination of the floor so that drivers are able to discern objects within the facility. Designs shall attain a cutoff angle of 24 degrees to 38 degrees on driver approach and 60 degrees to 75 degrees on driver retreat as shown in Figure 1.
- c. Lighting intensities for all floors, ramps, entrance/exit areas, and stairways shall be as listed in Table 1.

Figure 1. Transverse Lighting Coverage

Transverse Coverage and Cutoff based on Eight-Foot Mounting Height

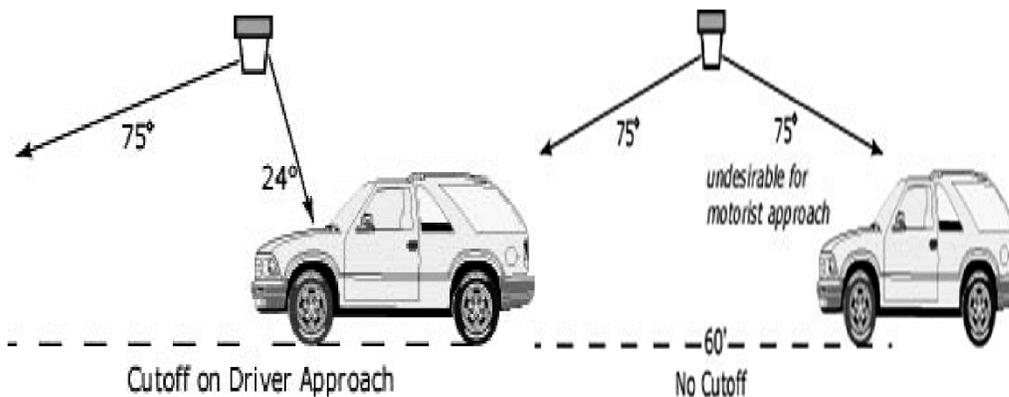


Table 1

	Minimum Horizontal Illuminance (footcandles)	Maximum Uniformity Ratio	Minimum Vertical Illuminance* (footcandles)
Basic per floor	1	10:1	.5
Ramps day	2	10:1	1
Ramps night	1	10:1	.5
Entrance areas day	50	—	25
Entrance areas night	1	10:1	.5
Stairways	2	—	1

*Measured facing the drive aisle at five feet above the parking surface at the point of the lowest horizontal illuminance.

(6) Vehicular Use Area Canopy lighting.

- a. Luminaires mounted on or under canopies shall be full-cutoff fixtures, or recessed so that the lens cover is flush with the bottom surface (ceiling) of the canopy as demonstrated in Figure 2. Lighting may also be shielded by fixtures or the edge of the canopy so that light is restrained to 85 degrees or less from vertical as shown in Figure 2. An applicant may also demonstrate compliance by illustrating that luminaires do not result in glare, that generate vertical and horizontal spillover onto adjacent properties are within code standards and that onsite light intensities are not excessive and promote a safe environment.
- b. Lighting within six feet of the canopy shall maintain a minimum horizontal illuminance of 2.0 footcandles at ground level and shall not exceed an average horizontal illuminance of ten footcandles, a uniformity ratio of 5:1, and a maximum uniformity ratio of 10:1 ~~6:1~~.
- c. Indirect lighting, where light is aimed upward at the underside of the canopy and reflected back down from the underside of the canopy, may be used when luminaires are shielded so that all direct illumination is focused exclusively on the underside of the canopy and when the average vertical illuminance does not exceed 0.5 footcandles at five feet above the canopy level.
- d. Luminaires shall not be mounted on the top or sides (fascias) of the canopy when not part of a permitted sign. The sides (fascias) of the canopy shall not be illuminated in a manner other than that prescribed under the section of the Land Development Code regulating signs.
- e. ~~Lighting shall be provided in accordance with this section throughout the nighttime hours of operation and/or use by the public of a business or facility. However, lighting shall be automatically extinguished no later than one hour after the close of business or facility operation and/or use by the public. After hours security lighting may be permitted when such lighting does not exceed 50 percent of the number of luminaires or the illumination level required or permitted during regular nighttime operation hours. To ensure after operating hours security and energy conservation, businesses operating after dusk shall automatically reduce illuminance to a minimum of 0.5fc intensities level, one hour after the close of business or by 11:00pm, whichever is later.~~

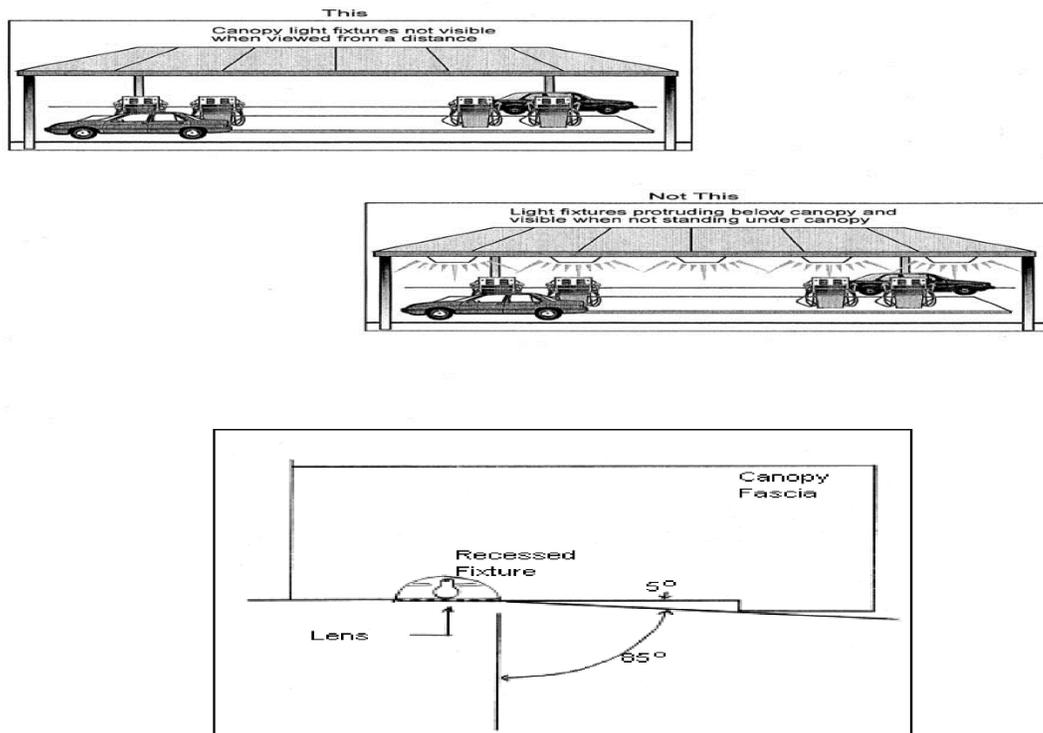
To ensure security, during the hours from dusk to dawn, developments subject to development plan review which do not operate after dusk, shall comply with the requirements of the ordinance or may elect to maintain a 50% reduction of required lighting for the site. The development may demonstrate that the site is fully secured and is not accessible by the general public and may request a waiver to defer from providing a full site lighting plan.

(7) Gasoline and Other Fuel Dispensing Developments:

- a. In addition to the requirements listed above for vehicular use are canopy lighting, outdoor display area lighting used in conjunction with gasoline and other fuel dispensing developments shall not exceed a maintained lighting level of 20 footcandles as measured horizontally at grade under the canopy and within an area of six (6) feet from the edge of the canopy. Higher levels, up to 30 footcandles, may be approved through the waiver process. The uniformity ratio shall not exceed 5:1 and a maximum uniformity ratio of 10:1
- b. Where such facilities are within 500 feet of single-family residential developments, approval shall be granted through a public hearing process before the appropriate reviewing board.

- c. The applicant must demonstrate that the adjacent residential is fully protected from glare, light pollution and spillover light intensities.
- (8) Vehicle and Automobile Dealerships Along Main Street, north of NW 16th Avenue and NW 39th Avenue between NE 2nd and NE 10th Streets; when more than 500 feet from residential.
- a. Outdoor display area lighting used in conjunction with a vehicle and automobile sales developments shall not exceed a maintained lighting level of 50 footcandles as measured horizontally at grade. Higher levels, up to 70 footcandles, may be approved through the waiver process.
- d. Where such facilities are within 500 feet of single-family residential developments, approval shall be granted through a public hearing process before the appropriate reviewing board. The applicant must demonstrate that the adjacent residential is fully protected from glare, light pollution and spillover light intensities.

Figure 2. Canopy Lighting



(f) Lighting plan submission and review.

(1). Review Process for Approval of Lighting Plans:

- a. An applicant may choose one of the following processes for obtaining approval of a lighting plan:

1. Full approval during development plan review
 - a. A complete detailed plan is submitted at the time of filing for development plan review
2. Initial general plan with a detailed plan at a later date.
 - a. A general plan at the time of initial submittal which will include the following:
 - i. The areas that will be lit
 - ii. Proposed location of poles in relationship to the landscape plan
 - iii. Placement of building lighting
 - iv. Security lighting proposal
 - v. A list of proposed lighting waivers
3. A separate lighting plan at the appropriate level of review and associated fees may be submitted prior to obtaining a building permit.
 - a. Prior to obtaining a building permit an applicant may file an application for lighting plan review at the appropriate level of review in accordance with Article VII.
 - b. The appropriate fee and associated documents necessary for conducting the review shall accompany the application.
4. Rapid lighting plan review
 - a. A Rapid Lighting plan review for minor improvements, repairs and maintenance.

(2) Rapid Lighting Plan Review and Sites not Subject to Development Plan Review.

Minor lighting installations, repairs, maintenance and lighting improvements to sites not subject to development plan review per Article VII may obtain review and approval by filing for Rapid Lighting Plan Review. The following types of developments and improvements are eligible:

1. Developments at the Rapid Review level per Article VII
2. Installations including 5 or fewer free-standing poles plus building lighting
3. Lighting that includes repairs and maintenance of fixtures, lamp changes and re-aming of fixtures
4. Other minor installations and improvements

A Rapid Lighting Plan review application must be submitted to Planning and Development Services with the appropriate review fee. The lighting plan must be submitted by a certified lighting professional and must demonstrate compliance with the relevant aspect of the lighting ordinance. The plan must demonstrate how electrical service will be provided and how landscaping and existing trees will be addressed.

(f) ~~Lighting plan submission.~~

~~Lighting plans demonstrating compliance with the requirements of this section shall be submitted to the technical review committee for review and approval for development plan review, a building permit, and special use permit applications. Lighting plans shall be certified by a registered architect, engineer, or lighting professional holding a current lighting certification (LC) from the National Council on Qualifications for the Lighting Profession (NCQLP) as providing illumination in accordance with the applicable standards of this section and shall include the following information:~~

- ~~(1) A brief written narrative, with accompanying plan or sketch, which demonstrates the objectives of the lighting.~~
- ~~(2) A statement of the proposed hours when the luminaires will be on and when they will be extinguished.~~
- ~~(3) A layout of all existing and proposed luminaires by type, location, mounting height, aiming direction, orientation, lamp, and photometry.~~
- ~~(4) Description of the proposed equipment, including luminaire catalog cuts, glare reduction devices, lamps, lamp color temperature, on/off control devices, mounting heights, mounting methods, pole foundation details, and pole protection means.~~
- ~~(5) Manufacturer specification sheets, cut sheets or other manufacturer provided information for all existing and proposed luminaires, including designation as full-cutoff fixtures if applicable and/or required.~~
- ~~(6) Photometric data and drawings to illustrate how light sources are shielded to prevent spillover lighting and how the aiming of lights will prevent light trespass and glare to drivers, pedestrians, adjacent properties, and the night sky.~~
- ~~(7) An illustration showing lighting levels (illuminance in footcandles), uniformity ratios, lamp wattages, shades, deflectors, beam directions, and luminous areas for each source of light.~~
- ~~(8) A photometric grid showing footcandle readings every ten feet within the property or site, and 25 feet beyond the property lines, plotted out to 0.0 footcandles. The map or grid shall be drawn to a scale acceptable to the city manager or designee, but in no instance to a scale smaller than one inch equals 100 feet. Iso-footcandle contour line style plans are also acceptable.~~
- ~~(9) Landscaping information demonstrating that the site lighting and existing and proposed landscaping have been coordinated to minimize conflict between vegetation and intended light distribution, both initially and at vegetation maturity.~~
- ~~(10) A description of adjacent properties that may be adversely impacted by the lighting. The lighting plan may require the inclusion of illuminance values on specific adjacent properties (e.g. adjacent properties with residential dwellings).~~
- ~~(11) For parking structures, the lighting plan shall include the following additional information:
 - ~~a. Minimum horizontal and vertical lighting intensities for each floor, floor ramps, entrance areas and stairways. Data may be requested for certain daylight periods.~~
 - ~~b. Uniformity ratios and maximum uniformity ratios for each floor, floor ramps, entrance areas and stairways. Data may be requested for certain daylight periods.~~
 - ~~c. The cutoff angles on driver approach and retreat.~~~~

~~d. Any cavern effects from light shielding.~~

(3) Submittal Requirements for General and Detailed Photometric Plan Review.

Photometric plans and supporting documents demonstrating compliance with the requirements of this section shall be submitted to the technical review committee for review and approval. Plans shall be certified by signature and seal of a registered architect, engineer, or lighting professional holding a current lighting certification (LC) from the National Council on Qualifications for the Lighting Profession (NCQLP) as providing illumination in accordance with the applicable standards of this section and shall include the following information:

The photometric plan shall clearly indicate the following items addressing the required elements of the lighting ordinance. The plan shall include:

- a. A layout of all existing and proposed luminaires with location, designation, and orientation.
- b. A schedule of all fixtures including the following information:
 - i. Fixture designation
 - ii. Fixture distribution information (i.e. IESNA Type III, Type IV, Type V) for area lighting fixtures
 - iii. Mounting height
 - iv. Light source type and wattage
- c. An illustration of light levels (illuminance in footcandles, typical) for all exterior areas within the site boundaries (Let's discuss), and at receiving property boundaries. Separate calculations shall be performed for each area of the site (i.e. parking lots, building entry areas, light trespass calculations). The boundary of each area shall be clearly indicated and the area shall be labeled. The calculations shall be performed on a grid, at a maximum of every ten feet.
- d. A table of photometric calculations indicating, at a minimum, the following values for each area:
 - i. Average illuminance
 - ii. Maximum and minimum illuminance
 - iii. Average-to-min and Maximum-to-min uniformity ratios
 - iv. The ordinance section applicable to the area
- e. For parking structures, the lighting plan shall include the following additional information:
 - a. Minimum horizontal and vertical lighting intensities for each floor, floor ramps, entrance areas and stairways. Data may be requested for certain daylight periods.
 - b. Uniformity ratios and maximum uniformity ratios for each floor, floor ramps, entrance areas and stairways. Data may be requested for certain daylight periods.
 - c. The cutoff angles on driver approach and retreat.
- f. A layout of all existing and proposed luminaires by type, location, mounting height, aiming direction, orientation,
- g. Delineate the areas of the plan addressing the required elements of the lighting ordinance. It shall include building lighting, entrance/exit areas and data, spillover areas and data, and other security lighting areas and data. Where vehicular use areas include patron parking, automobile display and storage areas, each area with associated data shall be clearly designated.

- h. Landscaping information demonstrating that the site lighting and existing and proposed landscaping have been coordinated to minimize conflict between vegetation and intended light distribution, both initially and at vegetation maturity.
- i. A brief, written narrative describing the proposed luminaires, mounting heights, control devices and schemes, applicable calculation zones, and a summary of the adjacent properties. This may be provided as notations on the Photometric plan, or in a separate attachment on the preparer's letterhead.
- j. Manufacturer specification sheets, cut-sheets or other manufacturer-provided information for all existing and proposed luminaires. Photometric reports generated from manufacturer-provided IES data, where available.
- k. Topographic variations on site and any significant change in grade or elevation of the surrounding sites.

(g) *Waivers.* During approval of a development plan or building permit ~~or special use permit~~, the appropriate reviewing board, city manager or designee may permit a waiver for one or more of the requirements of this section. An applicant requesting a waiver shall submit a lighting plan as described in this section. At the expense of the applicant, and the appropriate reviewing board, city manager or designee may ~~have the request and lighting plan reviewed, an independent review at the applicant's expense,~~ by a registered architect, engineer, or lighting professional holding a current lighting certification (LC) from the National Council on Qualifications for the Lighting Profession (NCQLP).

The appropriate reviewing board, city manager or designee may permit a waiver only when an applicant demonstrates that:

- (1) The requested waiver is consistent with and promotes the purpose and intent of this section;
- (2) The applicant ~~otherwise meets the requirements of this section;~~ uses an alternate methodology, technique or approach, consistent with IESNA standards, to demonstrates compliance with the intent and purpose of the City's Lighting Ordinance
- (3) A unique situation or hardship exists as a result of conditions peculiar to the property and not due to the actions of the applicant; ~~or and~~
- (4) The requested waiver is necessary to ensure compatibility and consistency with the surrounding properties.

In granting a waiver, the appropriate reviewing board, city manager or designee may impose any reasonable conditions, restrictions or limitations to preserve and promote the purpose and intent of this section.

(h) *Nonconforming luminaires and lighting.* Any luminaire or lighting installation lawfully existing on December 20, 2012, that does not conform with the requirements of this section shall be deemed legally nonconforming.

- (1) A nonconforming luminaire or lighting installation shall be made to conform with the requirements of this section when:
 - a. Minor corrective action, such as re-aiming or shielding, can achieve conformity with the applicable requirements of this section;

- b. Fifty percent or more of the existing luminaires on a property are replaced;
- c. The number of existing luminaires on a property is increased by 50 percent or more; or
- d. The city manager or designee deems the nonconforming luminaire or lighting installation a safety hazard.
- e. Expansion and/or remodeling of existing non-residential or multiple family developments that exceed 50 percent of the assessed valuation of the site or structures' as per the Property Appraisers Office. Assessed valuation shall be determined by reference to the official property tax assessment rolls of the year the structure(s) is to be remodeled.

(2) A development that becomes nonconforming with this section due to a change in operational hours from daytime only to include nighttime operation shall be required to comply with these regulations within 90 days of the effective date of the change.

(i) **Fees**

Amend Appendix "A", Schedule of Fees, Rates and Charges, Land Development Code to add a fee for Rapid Lighting Plan review: proposed fee \$500.00.

(Ord. No. 120023, § 7, 12-20-12)

Editor's note—

Prior to the reenactment of § 30-344 by Ord. No. 120023, Ord. No. 040238, § 1, adopted Sept. 27, 2004, repealed said section in its entirety. The former § 30-344 pertained to storage of flammable liquids and derived from Ord. No. 3777, § 1, adopted June 10, 1992.