BUNCOMBE COUNTY
PLANNING & DEVELOPMENT

Agenda
Buncombe County Planning Board
October 20, 2025
30 Valley Street, Asheville, NC 28801

1. Call to Order
2. Announcements – Nancy Waldrop
3. Announcements – Staff
4. Roll Call of Board Members
5. Approval of Agenda
6. Planning Minute Approvals:
    a. 8-18-2025 Minutes
7. Review and Questions about 9-15-2025 Presentation Notes – No quorum was present
8. General Public Comment
9. Swannanoa Small Area Plan Update
    a. Existing Conditions Study & Hazard Vulnerability Assessment status
    b. Boundary Poll results
    c. Policy map concept and Steering Committee results
    d. SWOT Analysis poll results
    e. Next Steps
10. ZPH2025-00024 Lighting Text Amendment Workshop
11. Adjournment

Buncombe County Planning Board

August 18, 2025 Minutes

The Buncombe County Planning Board met on May 19, 2025 at 30 Valley St., Asheville, NC 28801.

Planning Board members present were Nancy Waldrop-Chairperson, Ken Kahn, Tim Collins, Anthony Coxie, Jay Marino, Liza Schillo, and Karl Koon.

Also, present were Gillian Phillips, Shannon Capezzali, Brittain Sluder - Planning Staff, and Amy Broughton - County Attorney.

Call to Order
Chair Waldrop called the meeting to order at 9:30 am.

Announcements
Public Comments protocol was shared, and conflict of interest statement was read by Chair Waldrop.

Roll Call of Board Members
Complete.

Approval of Agenda
A motion was made by Tim Collins and seconded by Anthony Coxie and passed unanimously.

Approval of Minutes (April 21, 2025)
Jay Marino made a motion to approve the July 21, 2025, meeting minutes. The motion was seconded by Ken Kahn and passed unanimously.

Public Comment
None

Public Hearings

ZPH2025-00021 Foundation for the Arts Map Amendment: Sarena Fuller, on behalf of Foundation for the Arts at the Core of Education, Inc. has applied to rezone two (2) parcels of land further identified as PIN 9688-19-0048 and 9688-19-1005, from R-1 Residential to NS-Neighborhood Services.

Brittain Sluder, Planner for the County, presented the application and staff report for the rezoning. Sarena Fuller, applicant, provided a brief statement about the proposed development. A voluntary community town hall was held by the applicant prior to the public hearing. No one was present to make public comment. A motion was made by Karl Koon to recommend approval, seconded by Ken Kahn. The motion to recommend approval of the rezoning passed unanimously.

ZPH2025-00022 Ramsey Map Amendment: Quinlan Matthews of Penny Cup Pit Stop, on behalf of Lynne and Patsy Ramsey, has applied to rezone one (1) parcel of land further identified as PIN 9639-31-9355, from R-3 Residential to CS- Commercial Service.

Brittain Sluder, Planner for the County, presented the application and staff report for the rezoning. Quinlan Matthews, applicant, provided a brief statement about the community engagement they have done, and the proposed development. Andrea Golden, of Emma Neighborhood Council, and Mike Atkinson, area resident, made public comments in support of the rezoning based on the development proposal, but expressed concern about other options that could occur in a CS zoned district. Staff clarified that the County does not have conditional zoning. The applicant clarified that at the time of application he was associated with Penny Cup, but that business relationship has since ended. Tim Collins made a motion to suspend the hearing so the applicant and community could discuss it privately, and Anthony Coxie seconded the motion. Mr. Koon and Mr. Marino voted against the motion. The motion to table the discussion was passed. Ken Kahn made amotion to re-open the public hearing, seconded by Anthony Coxie. The motion to re-open the public hearing passed unanimously. Chair Waldrop requested the applicant to present. Quinlan Matthews stated that he discussed the issues with the residents present at the meeting and would like to bring the application back to the next meeting. Chair Waldrop requested additional public comment from Andrea Golden, who provided a statement in support of moving the application to the next meeting.

A motion was made by Ken Kahn to continue the application to the September 15, 2025 Planning Board meeting, seconded by Anthony Coxie. The motion to continue the rezoning passed unanimously.

ZPH2025-00025 Edins Map Amendment: Kevin Edins has applied to rezone one (1) parcel of land further identified as PIN 9653-57-2381 from R-2 Residential to CS – Commercial Service.

Gillian Phillips, Planner for the County, presented the application and staff report for the rezoning. Kevin Edins, applicant, provided a brief statement about the community engagement that he did. No public was present to make public comment. A motion was made by Ken Kahn to recommend approval, seconded by Tim Collins. The motion to recommend approval of the rezoning passed unanimously.

Adjourn

Karl Koon made a motion to adjourn the meeting seconded by Jay Marino. Meeting adjourned at 10:41 a.m.

Notes Regarding the Presentation Submitted to the Planning Board Members Present
9-15-25

Attendance

Planning Board: Mrs. Nancy Waldrop (chair), Mr. John Noor, Mr. Ken Kahn, Mr. Alan Coxie
County Staff: Gillian Phillips, Shannon Capezzali, Brittain Sluder, Curt Euler (county attorney)

Summary

The Board did not meet quorum for this meeting, so no motions or votes took place.

After some discussion about procedure without quorum, attending board members heard a presentation from staff on ZPH2025-00024 concerning proposed changes to the lighting standards in the zoning ordinance, as well as from a member of the public, Mr. Bernard Arghiere, who said he helped write the original standards. Mr. Bernard Arghiere spoke in favor of the amendment but suggested some additional changes, including a reduction of the maximum commercial Kelvin to 3000K. Board members Mr. Noor, Mrs. Waldrop, and Mr. Coxie expressed agreement with that specific change.

Buncombe County Planning and Development
Long Range Planning Division
46 Valley St.
Asheville, NC 28801

LIGHTING MEMORANDUM

To: Buncombe County Planning Board
From: Long Range Planning Division
Date: September 2, 2025 (UPDATED October 6, 2025)
Re: Text Amendments Addressing Exterior Lighting Standards

PURPOSE

The Exterior Lighting Memorandum provides an overview of the key issues and proposed Zoning Ordinance changes related to outdoor lighting. Lighting standards are intended to minimize light pollution, light trespass and glare, and work to promote energy efficient lighting practices. Reducing light pollution has important benefits for the natural environment, such as protecting migrating and nesting wildlife, and has been shown to positively impact human health.

This document will summarize an analysis of Equity issues, relevant case law, current bills before the General Assembly, a consideration of regulations in other jurisdictions, proposed text amendments, and general recommendations.

IMPACT ANALYSIS

When exterior lighting pervades the night sky and landscape in ways that negatively impact humans and the environment it is called light pollution. Exposure to light pollution has been found to have negative mental and physical impacts to humans, such as by disrupting the body's circadian rhythm that regulates sleep, and increasing traffic accidents due to glare and night blindness (3). It also creates impacts that can harm wildlife, plants, and ecosystems that we rely on for a healthy and resilient environment (1).

A study of outdoor lighting in the United States showed that non-white communities and renter-occupied areas were impacted by light pollution at a rate twice that of white communities, and that there was little difference in the inequity when studying rural vs. urban areas. Some of this can be attributed to development patterns that result in racial and ethnic minorities, and low-income households being situated near less desirable uses that are more likely to create light pollution (2). "Marginalized communities generally suffer from poor lighting, which is visually distressing, environmentally harmful and socially hostile" (4). As a result, light pollution is an environmental justice issue as it disproportionately impacts communities of color and lower socioeconomic households.

As Buncombe County continues to grow, conflicts between residents and businesses will increase as more areas become developed and new exterior lighting is installed. Infill development, up-zoning, and redevelopment will contribute to a brighter nighttime environment unless protections are put in place to limit the negative impacts of light pollution.

CASE LAW & CURRENT BILLS

In North Carolina, local jurisdictions have the authority under Zoning law to regulate land uses and standards related to them, such as for exterior lighting. The NC General Assembly prohibits blinding, deceptive or distracting lights which could result in a motor vehicle accident or be confused for a traffic signal (G.S. 136-32.2). Two Supreme Court cases related to the regulation of on vs. off-premise sign regulations include: Reed v. Town of Gilbert, and Austin v. Reagan National.

Current Bills in NC General Assembly

None identified.

REGULATIONS IN OTHER JURISDICTIONS

This is a brief look at what other local governments are doing. *Examples from outside North Carolina may not be legal or otherwise desirable in North Carolina but are presented to illustrate alternative approaches.*

Common Language and Practices

Examples of standards from other jurisdictions include:

Light level	Regulates the maximum amount of light at property lines, roads, and for the entire development site or within parking lots, often through footcandle measurements.
Color Temperature	Regulates the color of light on the kelvin scale. 1,000 to 4,500 kelvin is warm light 4,500 to 6,500 is white daylight. 6,500 to 10,000 is blue light. Typically warmer colors are healthier and easier on human eyes, and less disruptive to wildlife.
Mounted height	Sets a maximum height for the mounting of lights or illuminated signage. Height is one factor that impacts how much light is visible to surrounding properties, and how much of an area is illuminated.
Internal illumination	Sets standards for the maximum face size of internally illuminated signs.
Light direction	Light direction dictates where the light falls based on fixture design and placement. Standards to minimize light trespass may include shielding, glare control, or cutoff light fixtures.
Lumens	Sets standards for the maximum amount of visible light through limits on lumens. Lumens is the brightness of the light.
Movement	Regulates or prohibits animation, movement, or change on a digital display sign.
Automation	Lights can be automated to automatically dim after a certain time of night, turn off during daylight, or adjust brightness during fog and rain. Typically utilized for traffic safety reasons.

Common Regulatory Obstacles

Enforcement of exterior lighting regulations can be difficult when applied to single-family residential developments. For example, when residents add new light fixtures or change old light fixtures they are not required to obtain a Zoning permit, so there is no process for a Zoning inspector to ensure that the light is compliant. Coordination with the Permits & Inspections Department through their electrical permitting process would be needed to enforce exterior lighting standards for single-family residential uses. Therefore, no standards are being proposed for detached single-family uses in these text amendments.

Health & Safety Requirements:
Regulating a specific use through the Zoning Ordinance does not exempt that use from any other local, state, or federal regulation. As an example, lighting standards are subject to the following requirements:

- NC State Building Code Requirements for health, safety, and emergency access lighting
- NCDOT Street light requirements for public roads
- FAA requirements for Airport lighting related to the airfield side of the property

Regulation and Enforcement
Regulation of lighting is through the normal permitting process of obtaining a Site Plan Review (SPR) permit for construction of a building, installation or replacement of lighting, or through a Change of Use permit if a residential structure were converted to commercial use. As is common with most of our regulations, Zoning enforcement for a violation of the lighting requirements would be initiated by receipt of a community complaint for non-compliant lighting.

Localities
The following is a list of notable lighting standards from other jurisdictions:

LOCATION	REGULATORY EXAMPLES
Asheville, NC	Regulates residential and commercial lighting, requiring full cutoff fixtures. Limits light at property lines to 0.5 footcandles, mounted height to 25 feet, and flood lights less than 1,250 lumens and shielded. Requires BUG rating and 4,300 kelvin or less. 6,500 lumens or less in residential districts and 20,000 lumens or less for non-residential. Additional requirements for other uses. Prohibits blinking or changing displays and internally lit wall panels. Exempts temporary seasonal lighting, historic landmark lighting, string lights for residential or over dining areas, and ornamental gas lights.
Henderson County, NC	Requires exterior lighting be fully shielded with exceptions for flag poles and other uses. Sets a maximum amount of light trespass at property lines, and prohibits flood lights. Requires existing buildings to bring lighting into full compliance if they repair or replace 50% or more total existing exterior lighting within a 12 month period.
Chatham County, NC	Requires lighting in natural areas to be reduced after midnight. Requires lighting plans to demonstrate how they will be energy efficient, reduce lighting, and utilize timers or other methods to eliminate lights. Sets standards specific to type of use. Sets standards for light measurement techniques for permitting.
Guilford County, NC	Requires commercial lighting adjacent to a residence be turned off by 10pm. All lights must be full cutoff, mounted less than 35 feet, with footcandle limits based on type of use. Specific standards for canopy lighting and outdoor recreation. Exempts single family residential lighting, temporary lighting and holiday displays, security lighting with motion activation that turns off after 15 minutes, gas lamps, street lights, and government flags. Prohibits flashing or intermittent lighting.
Wendell, NC	Specifies a maximum light level of 0.5 footcandles at residential property lines, and up to 1 foot candle at all other property lines. Limits wall packs to building entrances only, prohibiting them for general site lighting. Prohibits any light which shines directly into the yard or window of an adjacent residence. Sets a maximum mounted height of 18 feet for pedestrian lights and 37 feet for street or parking lot lighting.

EXISTING COUNTY ORDINANCES

Buncombe County's Zoning Ordinance currently regulates exterior lighting related to commercial uses, multi-family apartment complexes, and dusk-to-dawn security lighting. Standards require full cutoff lighting, or partial cutoff fixtures for lights less than 1,250 lumens. There are limits on the maximum average light level for the overall development, as well as for light levels at property lines, road rights-of-way, and in parking lots.

Specific standards apply based on type of use, for example, wall accent lighting, gas station canopy lights, streetlights, and sports fields have additional requirements. LED lights are limited to a maximum color temperature of 4,300 kelvin, which is in the warmer yellow range. There is a 35 foot height limit, and glare control requirements. Exemptions exist for temporary seasonal lighting, emergency lighting, and single-family residential lighting (except not dusk-to-dawn lights). Search lights, laser lights, high intensity string lights, and up-lighting are all prohibited.

PROPOSED TEXT AMENDMENTS

The following table summarizes the proposed Zoning Ordinance Text Amendments related to co-living.

SUMMARY OF PROPOSED TEXT AMENDMENTS *(Sec. 78-668 Lighting Standards)*	
1	Create a definition of accent lighting
2	Create a definition of electronic message display
3	Create a definition for facade lighting
4	Update the lighting standard Purpose statement.
5	Remove the assembly replacement standard (b)(2) as this is redundant.
6	Remove dusk to dawn 5-year conformity standard as these lights were already phased out years ago
7	EXEMPTIONS: a) Add exemption for low-intensity ornamental gas flame lamps b) Add exemption for low volt, low watt ornamental landscape lighting
8	PROHIBITIONS: a) Clarify prohibition for outward lighting and any that is not full or partial cutoff b) Clarify standards for lumen ratings of string lights c) Prohibit animated or flashing signs
9	Move all footcandle standards into 1 central table, and make the following changes: a. Split the property line footcandle limit into a non-residential and residential option b. Add a maximum footcandle for illumination of vertical surfaces c. Add a maximum footcandle for electronic message displays
10	Move all Kelvin ratings into 1 central table, and make the following changes: a. Reduce the maximum kelvin rating for commercial b. Create separate kelvin standards for residential and rural areas c. Create a higher kelvin rating for vehicular canopies, sports fields, and performance areas d. Exempt internally lit signs, lettering, and electronic displays from kelvin standards
11	Add a graphic showing the difference between full cutoff, partial cutoff, and non-cutoff fixtures
12	Require that lighting be aimed and shielded so the direct light falls on the property of the light and not onto adjacent parcels except for shared parking areas or common developments
13	Move all maximum height standards into 1 central table, and make the following changes: a. Reduce the maximum height of security lighting to 15 feet b. Create a 10 foot height limit for electronic message displays c. Reduce the maximum height for outdoor sports courts to 50 feet d. Reduce sign lighting to 20 feet e. Reduce the height of general site lighting to 30 feet

	f. Clarify individual lights on apartment balconies have no height limit but must be full cutoff
14	Revise accent and facade lighting to clarify that it only applies to lights which are directly facing a structure or sign that is being illuminated.
15	Clarify the wording for placement of low wattage fixtures close to buildings.
16	Allow non-compliant vehicular canopies to be updated without having to meet all lighting standards by removing some of the faces of the canopy lighting.
17	Require that dusk to dawn, security, and flood lights be motion-activated and designed to turn off within 20 minutes of activation.
18	Require that all street lighting be full cutoff.
19	Clarify that outdoor sports fields and performance areas must be cutoff or full cutoff light fixtures
20	Limit lighting of sports fields to those in open for use or undergoing maintenance.
21	Create standards for electronic message displays.
22	Create maximum size standards for backlit signs and letters based on mounting type/location.
23	Clarify the photometric plan requirements.
24	Create a table identifying commercial and multi-family lighting designs which will not require a photometric plan based on meeting certain standards.
25	Remove the requirement for an as-built drawing for the lighting plan.
26	Remove the reference to the 10 business day review process.

COMPREHENSIVE PLAN REFERENCE

The following sections of the Comprehensive Plan were referenced when drafting these text amendments:

Growth, Equity, Conservation

Action 6: Support the protection of agricultural and forest lands, environmentally sensitive areas, and rural communities.

Farms, Forests, Env.

Policy 2: Preserve Buncombe County's natural heritage.

Policy 3: Promote ecosystem enhancement…

Health & Recreation

Policy 5: Utilize environmental protection and land conservation to… promote health.

Infrastructure & Energy

Action 2: Implement policies around new development and re-development that advance decarbonization and sustainability goals

CITATIONS:

1. Chepesiuk R. Missing the dark: health effects of light pollution. Environ Health Perspect. 2009.
2. Nadybal SM, Collins TW, Grineski SE. Light pollution inequities in the continental United States: A distributive environmental justice analysis. Environ Res. 2020.
3. Task Force to Study Lighting Efficiency & Light Pollution in Maryland. State of Maryland. 2002.
4. Bartholomew, Edward & Loeffler, Mark. With Good Lighting & Justice for All. 2021. Illuminating Engineering Society.

REFERENCES:

(A) Model Lighting Ordinance. 2011. International Dark Sky Association.
(B) Innovative Land Use Planning Techniques. A Handbook for Sustainable Dev. 2008. New Hampshire Dept. of Environmental Svcs.
(C) Smart Codes: Model Land-Development Regulations. 2009. American Planning Association. Planning Advisory Service report 556.
(D) Finding Common Ground: Answers to Common Questions about Electronic Message Centers (EMCs). International Sign Association.

ZPH2025-00024

VERSION 1

9-15-2025

~~Strikethrough~~ – deletions

Underline - additions

Sec. 78-581. Definitions.

Accent lighting means an exterior light directed at and for the purpose of illuminating an object, sign, landscaping feature, or specific architectural detail.

Electronic message display (EMD) means a digital surface that uses light to display information, graphics, or images that can be changed electronically.

Facade lighting means the illumination of the vertical surface of a building through shielded light fixtures attached to and pointing at the structure.

Sec. 78-668. - Lighting standards.

(a) *Purpose.* Lighting standards are established in order to permit~~,~~ reasonable uses of outdoor lighting for night-time safety, utility, security, productivity, enjoyment and commerce. These standards will minimize light pollution, light trespass, and glare, ~~and will work to~~ promote energy efficient lighting practices and systems, and reduce adverse impacts of outdoor lighting on wildlife and human health. Lighting should be used only where needed, directed and shielded, no brighter than necessary, controlled during off-hours, and of warmer colors where possible.

(b) *Applicability.* Lighting standards shall apply to all new uses including commercial, industrial, public and residential development, all new and pre-existing dusk-to-dawn utility/security lights, and all new street lighting. To the extent regulated by this section, all existing outdoor lights or lighting systems installed prior to the adoption of this section, shall be treated as nonconforming uses pursuant to section 78-657 with the following exceptions:

(1) When a vehicular canopy is renovated at a cost which exceeds 50 percent of the value of the structure or is replaced in its entirety, all lighting attached to the new or renovated canopy must comply with subsection (e).

~~(2) When all the light fixtures of an assembly or group (such as, all the fixtures lighting a loading area or all the fixtures lighting one facade of a building) are replaced, the new lighting must comply with subsection (e).~~

(3) All pre-existing non-cutoff metal halide or high pressure sodium dusk-to-dawn utility/security lights shall conform to the provisions of subsection (e) ~~within five years from the date this section was adopted~~.



Figure X: Example of a prohibited metal halide dusk-to-dawn security light.

(c) *Exemptions.* The following are not regulated by the lighting standards set forth in this section:

(1) Lighting for single-family residential ~~use~~ structures, with the exception of dusk-to-dawn utility/security lights which shall be regulated pursuant to subsection (e)~~(5)~~.

(2) Lighting required by federal, state, or local laws or regulations;

(3) Seasonal displays using multiple low-wattage bulbs;

(4) Lighting used during an emergency or by emergency services personnel or at their direction;

(5) Temporary lighting which does not utilize the lighting types described in subsection (d)(1);

(6) Temporary lighting used for public purposes including but not limited to highway construction and public utility repairs~~.~~;

(7) Low-intensity ornamental gas flame lamps which include a solid cover over the top of the light source;

(8) Low voltage (twelve volts or less), low wattage ornamental landscape lighting, where fixtures are directed downward, and where any single light bulb does not exceed 25 lumens.

(d) *Prohibitions.* The following lighting types are specifically prohibited:

(1) Search lights, laser source lights, or any other similar high intensity lights except for those permitted in advance as required in subsection (f)(5) to be used on a temporary basis;

(2) Lighting that is oriented upward or outward, and any light which is not a cutoff or full cutoff light fixture, except as otherwise provided for in this section~~.~~;

(3) Lighting that could be confused for a traffic control device;

(4) A suspended string of lights, consisting of individual lamps larger than 45 lumens for LED bulbs, or 25 lumens per incandescent bulb, unless used only for temporary seasonal decorations~~.~~;

(5) Animated signs which use flashing or intermittent lights, sound, color changes, video, or other means to give motion to, or bring attention to the sign or the message on it, except that electronic message signs shall be regulated under section (e)(12).

(e) *Lighting specifications.*

(1) *Intensity.*

~~a. Unless otherwise specified, the maximum light level at any point shall be 0.75 footcandles at any property line, or 3.0 footcandles at any public street right-of-way.~~

~~b. The maximum average light level for the developed area of the project to be permitted shall be 4.5 footcandles.~~

~~c. The maximum rating for LED lights shall be 4.300 degrees Kelvin.~~

a. *Footcandles.* Footcandle light limits shall be as follows:

Table X. Maximum footcandles

Location	Max. footcandle
Non-residential property lines	0.75
Residential property lines	0.5

Public street rights-of-way	3.0
Outdoor parking, loading and storage	6.0
Total Developed area	4.5 max. avg.
Illumination of vertical surfaces	5.0 max. avg.
Outdoor sales/display areas	25 max. avg.
Outdoor sports fields, courts, performance areas	60 fc max. avg.
Electronic message displays (EMD)	0.3

i.~~c.~~ b. *Kelvin rating.* The maximum color temperature rating for LED lights shall be as follows:

Table X. Maximum Kelvin ratings		
All lights, except those listed below	ZONING: OU, RLD, BDM, R1, R2, R3	3,000 degrees kelvin
	ZONING: NS, CS, EMP, CR, PS	4,000 degrees kelvin
Beneath vehicular gas station canopies, outdoor sports fields and courts, and performance areas		5,000 degrees kelvin
Internally-lit, backlit signs/lettering, and Electronic Message Displays		Exempt from Kelvin limits when light source is entirely within a non-transparent enclosure

(2) *Luminaire type.* All lighting luminaires to be installed on a permanent basis shall consist of full cutoff or ~~and~~ partial cutoff fixtures, unless otherwise stipulated by this section. Full cutoff fixtures shall be ~~utilized~~ required where the luminaire has more than a 1,250 lumen output, unless as otherwise stipulated by this section. Lighting fixtures to be utilized on a temporary basis and as permitted through subsection (f)(5) shall be exempt from this requirement.

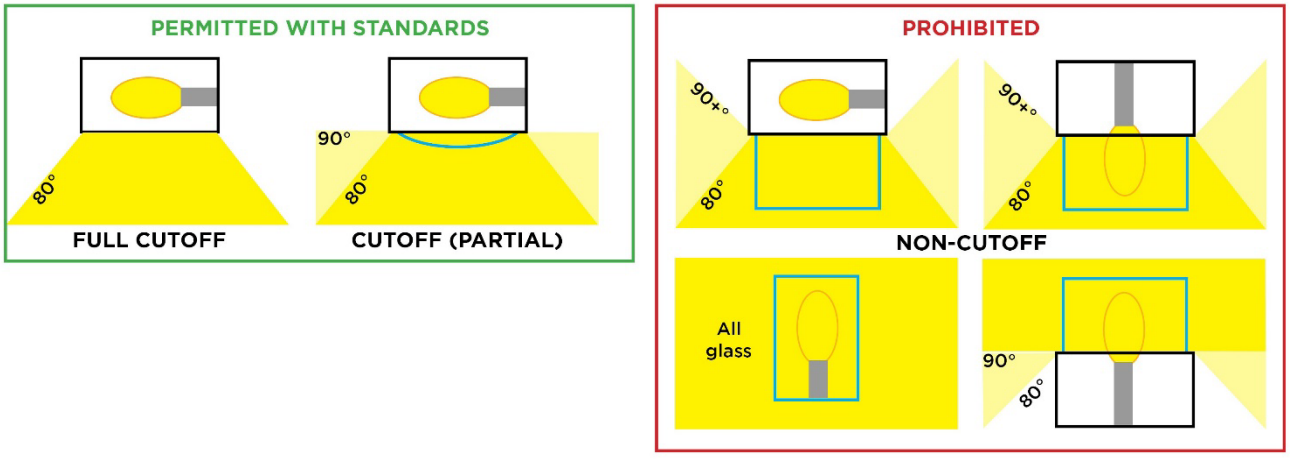

Figure X. Lighting fixture cutoff types

a) All light fixtures shall be aimed and shielded so that the direct illumination shall be confined to the property boundaries of the light source. Lighting shall not be aimed onto adjacent properties except in cases of shared parking or for communal infrastructure of phased or common developments on adjacent parcels.

(3) *Height*. The maximum mounted height of light fixtures above lowest adjacent grade shall be as follows:

Table X: Maximum Mounted Exterior Light Fixture Height		
Fixture type or use		**Maximum mounted height**
Dusk-to-dawn, security, and flood lights		15 feet
Electronic message displays (EMD)		10 feet
Outdoor sports courts		50 feet
Outdoor sports fields and performance areas		80 feet
Parking lot and street lighting		37 feet
Sign lighting		20 feet
Site lighting	Individual apartment balconies	N/A Must be full cutoff
	All other types	30 feet

~~(3)~~ (5) *Accent and facade* lighting. Accent or facade lighting shall meet the following standards ~~be directed toward at the face of the building or structure.~~

a. Lighting fixtures shall be directed downward ~~rather than upward~~ and shall be full cutoff fixtures, or shall be fully shielded and directly facing the structure or sign surface to be illuminated. ~~The zoning administrator or the board of adjustment may waive this requirement in cases where it is impractical.~~

b. ~~Placement of low wattage fixtures with shields (as needed) close to the building to graze the facade is required to minimize reflected light from windows and other surfaces.~~ Fixtures placed close to windows and other reflective surfaces shall be low wattage and include shields to minimize reflections. Lighting of any portion of a structure with a polished or glass exterior surface is prohibited.

~~(4)~~ (6) *Vehicular canopies.*

(a) Areas under a vehicular canopy shall have a maximum average horizontal illuminance of 30 footcandles. All lighting under the canopy, including but not limited to, luminaires mounted on the lower surface of the canopy and auxiliary lighting within signage or panels over the pumps, is to be included in the calculation. Lighting under vehicular canopies shall be designed so as not to create glare off-site. Acceptable methods include one or more of the following:

~~a.~~ (i) Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface (ceiling) of the vehicular canopy that provides a full cutoff or fully shielded light distribution.

~~b.~~ (ii) Surface mounted fixture incorporating a flat glass that provides a full cutoff or fully shielded light distribution.

(b) When replacing the internally-lit signage lighting on a vehicular canopy that is on a property that has pre-existing, non-conforming lighting, signage lighting and canopy wrap lighting shall only be allowed to be replaced on one street-facing side of the canopy. Internally-lit signage shall be removed from all other sides of the canopy unless the entire site is brought into compliance.

~~(5)~~ (7) *Dusk-to-dawn utility~~/~~, security, and flood lights.* Dusk-to-dawn utility~~/~~, *security and flood* lights shall ~~have a maximum rating of 9,500 lumens, shall be mounted at a maximum height of 25 feet above the lowest adjacent grade, and must~~ be full cutoff fixtures, and must be motion-activated and designed to turn off after no more than 20 minutes after activation. The Zoning Administrator may waive the requirement for motion-activation in cases where the type of use requires specific security features on the property due to a demonstrable, significant public health or safety interest.

~~(6)~~ (8) *Street* lighting. ~~a. *Alignment.*~~ Street lighting on newly constructed streets shall be alternately staggered on each side of the street. The zoning administrator or the board of adjustment may waive this requirement in cases where it is impractical. All street lighting must consist of full cutoff fixtures.

~~*b. Intensity.* Newly installed street lighting luminaires shall meet the following standards:~~

~~1. Individual luminaires erected in residential areas shall have a rating which does not exceed 9,500 lumens.~~

~~2. Individual luminaires erected in commercial and industrial areas shall have a rating which does not exceed 50,000 lumens.~~

~~c. *Luminaire type.* All street lighting must consist of full cutoff fixtures. If the luminaire is a post mounted decorative fixture mounted at a height of no more than 18 feet above the lowest adjacent grade, the luminare may consist of a cutoff fixture if the zoning administrator or board of adjustment determines that appropriate glare reduction measures are taken.~~

~~(7) *Outdoor parking, loading and storage areas.* The mounting height of all outdoor parking, loading and storage area lighting shall not exceed 37 feet above the lowest adjacent grade. The lighting of outdoor parking areas shall have a maximum average horizontal illuminance of 6.0 footcandles.~~

~~(8) *Outdoor sales/display areas.* The mounting height of all outdoor sales/display area lighting shall not exceed 37 feet above the lowest adjacent grade. The lighting of outdoor sales/display areas shall have a maximum average horizontal illuminance of 25 footcandles.~~

~~(9)~~ (11) *Outdoor sports fields and outdoor performance areas.*

~~a. The mounting height of outdoor sports field and outdoor performance area lighting fixtures shall not exceed 80 feet from the lowest adjacent grade.~~

b. *Glare Control.* All outdoor sports field and outdoor performance area lighting fixtures shall be cutoff or full cutoff fixtures which are equipped with a glare control package (louvers, shields, or similar devices). The fixtures must be aimed so that their beams are directed and fall within the primary playing or performance area.

c. *Hours of Operation.* The hours of operation for the lighting system shall coincide with ~~active~~ open use of the field or performance area and any necessary maintenance thereof. ~~Lighting the field or performance area during periods of vacancy shall be prohibited.~~ Only areas which are open for use, or undergoing maintenance, shall be lit.

(12) *Electronic message displays (EMD).*

(a) *Applicability.* The following standards shall apply to all electronic message displays which are visible from or adjacent to a public or private road, with the following exceptions:

(i) Outdoor Sports Field displays which directly face the field or bleachers are exempt;
(ii) Displays located along interior development roads which are not visible outside of the development are exempt;
(iii) Public schools displays shall be allowed in all zoning districts;
(iv) Government Protective Service displays shall be allowed in all zoning districts, and shall be exempt from the limit on rate of change.

(b) *Locations:* EMD's are prohibited in the OU, R-LD, BDM, R-1, R-2, and R-3 zoning districts.

(c) *Dimensions*. A maximum of one (1) electronic message sign shall be allowed per property and the electronic display shall not exceed 15 square feet in size.

(d) *Setbacks*. Signs shall be located no closer to the edge of the public road than 20 feet, and shall not be located within 100 feet from any intersection.

(e) *Display*.

(i) *Rate of change*. Displays shall be programmed to change no more than once per 12 hours;

(ii) *Motion*. Only static text and imagery may be displayed on the sign, and shall not include animation, video, flashing or intermittent lights, sound, color changes, or other means to give motion to the sign or message on it. Any change of the message shall be completed immediately without pauses and all parts of the message shall change simultaneously;

(iii) *Brightness*. The maximum light level shall be 20 nits during non-daylight hours, and 1,000 nits during daylight hours. Displays shall be equipped with a feature which automatically adjusts the brightness of the display based on ambient conditions;

(13) *Backlit signs and internally-lit signs and letters*. Backlit signs, or groupings of backlit letters, shall not exceed the following total cumulative size for the area of the sign that includes lighting:

a. Signs mounted on structures: 50 square feet of lit area
b. Pole-mounted or pylon signs: 15 square feet of lit area
c. Monument signs: 20 square feet of total lit area, or 5 square feet of lit area per business sign.

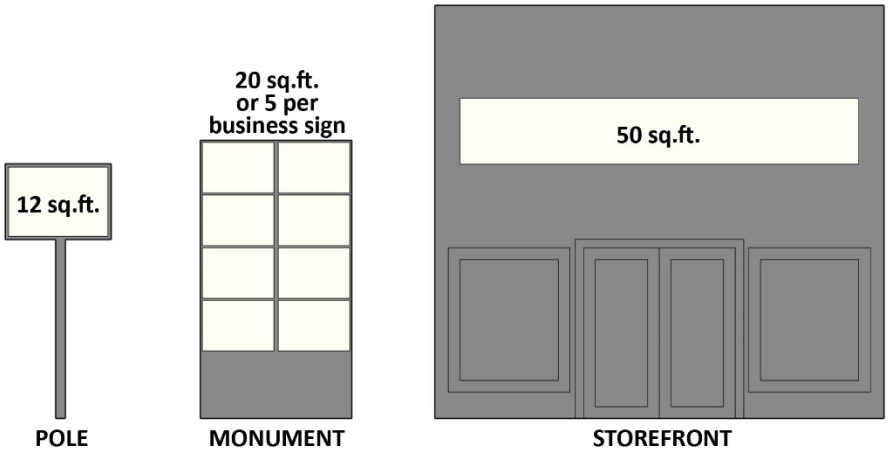

Figure X. Maximum backlit sign sizes.

(f) *Administration and enforcement.*

(1) Lighting plan required. A lighting plan designed and sealed by a licensed engineer shall be submitted with the application for a zoning certificate of compliance. The plan shall indicate the following:

a. Location and mounted height of all exterior lighting on the property.

b. A photometric plan containing the following:

~~i)~~ A point-by-point footcandle array photometric plan, ~~in a printout format~~ indicating the location and aiming of all pre-existing and proposed illuminating devices is required for all lighting except those indicated in the table below:

Table X: Exterior Lighting Designs Which Are Exempt from Photometric Plan Requirements

Type	Cutoff	Min. Spacing Between Lights	Max. Number of Fixtures	Max. Mounted Height above Adjacent Grade	Min. Distance from exterior property line	Conditions
Backlit sign	N/A	N/A	Up to 2 backlit signs per business; Additional backlit signs shall be subject to lighting affidavit	20 feet	5 feet	All other types of lighting on the site must be legally conforming.
Wall pack	Full cutoff	50 feet	Up to 10 total wall packs in the development	20 feet	25 feet from residential PL; 10 feet from commercial PL	Located within a development containing no other types of communal lighting, except backlit signs or entry signs with up to 6 accent lights.
Street light	Full cutoff	250 feet	1 light per 4 subdivision lots; N/A to commercial developments	25 feet		
Parking lot pole light	Full cutoff	100 feet	Up to 10 total parking lot pole lights in the development			
Any mix of lighting types listed above	Full cutoff	As listed above by type	Up to 10 total lights in the development	As listed above by type	As listed above by type	N/A

c. The ~~printout~~ site lighting plan shall include a printed statement that the lighting plan is in compliance with the requirements of this section. ~~indicate compliance with the lighting specifications required by this section.~~

d. The plan shall be accompanied by a description of the illuminating devices, fixtures, lamps, supports, reflectors, poles, raised foundations and other devices including, but not limited to,

manufacturers or electric utility catalog specification sheets and/or drawings, and ~~photometric report~~ indicating fixture classification (cutoff fixture, full cutoff fixture, etc.) must be furnished.

e. The zoning administrator may waive the requirements for a lighting plan set forth above, provided the applicant has provided all other required information and can sufficiently demonstrate compliance with this section. If the lighting plan requirements are waived, the requirements set forth in subsection (f)(2) ~~and (f)(3)~~ shall also not apply.

(2) A written statement signed and sealed by a licensed engineer, which indicates that the lighting plan complies with the standards set forth herein, shall be submitted with any application for a zoning certificate of compliance that proposes permanent outdoor lighting.

~~(3) A signed and sealed as-built drawing which demonstrates that the lighting plan described in subsection (f)(l) and submitted with the zoning certificate of compliance application was followed shall be submitted for review prior to the issuance of a zoning certificate of occupancy for the project.~~

~~(4)~~ (3) Light measurement technique. When a lighting affidavit is allowed in lieu of a photometric plan by the Zoning Administrator, the l~~L~~ight level measurements of light trespass shall be made at the property line ~~of the property~~ upon which light to be measured is being generated. Measurements shall be made at finished grade (ground level) with the light registering portion of the meter held parallel to the ground pointing up. Measurements shall be taken with a light meter that has been calibrated within the previous two years.

~~(5)~~ (4) Permit for temporary lighting required. Applicants who wish to utilize lighting on a temporary basis or lighting described in subsection (d)(1) must submit a written request to the zoning administrator. ~~The zoning administrator shall have ten business days to approve or deny the permit application.~~ The application shall include:

a. The purpose of the lighting;

b. The hours of lighting operation;

c. Where applicable, a plan showing the extent and intensity of light trespass upon adjacent properties;

d. Signed certification that in no case shall such lighting be directed at roadways where such lighting could pose a public safety threat to vehicular traffic; and

e. An application ~~fee~~ for ~~the~~ a zoning certificate of compliance ~~which shall be issued by the zoning administrator~~.

A permit for temporary lighting, in the form of a zoning certificate of compliance, shall be issued for an operation period of no more than 30 days. Once the permit has been issued, it may be renewed in 30-day periods for up to a total of 90 days unless the permit is for lighting as described in subsection (d)(1). If operation is to continue past the close of the 90-day period, a new permit must be applied for and obtained. Temporary lighting of the type described in subsection (d)(1) shall be event-specific and shall not be permitted for a duration of more than five (5) days. In no case shall temporary lighting be permitted on a single property, in one or in multiple locations, for more than 180 days per calendar year.