

**DRAFT LIGHTING ORDINANCE – PLANNING COMMISSION – OPTION 2:
SUBSTANTIAL ALTERATIONS AND ADDITIONS**

**ORDINANCE NO. ____
SERIES 2023**

**AN ORDINANCE AMENDING TITLE 17 OF THE LOUISVILLE MUNICIPAL CODE BY
THE ADDITION OF A NEW CHAPTER 17.26 TITLED OUTDOOR LIGHTING**

WHEREAS, the City of Louisville is a Colorado home rule municipal corporation duly organized and existing under laws of the State of Colorado and the City Charter; and

WHEREAS, pursuant to such home rule authority and state law, including but not limited to C.R.S. § 31-23-301 et seq., the City has adopted procedures and standards pertaining to the regulation of outdoor lighting within the: Design Handbook for Downtown Louisville; the Mixed Use Development Design Standards and Guidelines; the Commercial Development Design Standards and Guidelines; and the Industrial Development Design Standards and Guidelines; and

WHEREAS, the City Council desires to adopt and incorporate into the Louisville Municipal Code a new outdoor lighting code that includes standards and guidelines for all outdoor lights in the City; and

WHEREAS, in connection therewith, the City Council desires to make corresponding amendments to the Design Handbook for Downtown Louisville; the Mixed Use Development Design Standards and Guidelines; the Commercial Development Design Standards and Guidelines; and the Industrial Development Design Standards and Guidelines; and

WHEREAS, the City has conducted public outreach to discuss and gather feedback and comments on the outdoor lighting code; and

WHEREAS, after a duly noticed public hearing, where evidence and testimony were entered into the record, the Louisville Planning Commission has recommended that the City Council adopt the outdoor lighting code; and

WHEREAS, the City Council has reviewed the recommendation of the Louisville Planning Commission and desires to adopt the outdoor lighting code; and

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WHEREAS, City Council has provided notice of a public hearing on said ordinance by publication as provided by law and held a public hearing as provided in said notice.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO:

Section 1. Title 17 of the Louisville Municipal Code is hereby amended by the addition of a new Chapter 17.26 to read as follows:

Chapter 17.26
Outdoor Lighting

Sec. 17.26.010.- Purpose.

Sec. 17.26.020.- Definitions.

Sec. 17.26.030.- Applicability & Scope.

Sec. 17.26.040.- General Regulations.

Sec. 17.26.050.- Residential Uses.

Sec. 17.26.060.- Nonresidential Uses.

Sec. 17.26.065.- Nonresidential Uses in the Downtown.

Sec. 17.26.070.- Light Trespass.

Sec. 17.26.080.- Exceptions.

Sec. 17.26.010. Purpose.

The purpose of this ordinance is to provide regulations for outdoor lighting that will:

- A. Protect and enhance human and environmental health;
- B. Promote nighttime safety and visibility through purposeful and directed lighting;
- C. Increase the effectiveness of natural areas like Open Space in providing sanctuary for wildlife;
- D. Support citywide sustainability efforts by limiting the use of energy resources to the greatest extent possible;
- E. Minimize the adverse impacts of lighting, such as light trespass, glare, artificial night glow, and obtrusive light;
- F. Encourage quality lighting design and implementation;

- G. Effectively manage lighting throughout the city; and
- H. Increase access to and enjoyment of the night sky.

Sec. 17.26.020. Definitions.

As used in this Chapter, the following terms shall have the following meanings:

Backlighting. Lighting directed behind the luminaire.

Correlated Color Temperature (CCT). A metric to evaluate the color appearance of a light source, as measured by the absolute temperature of a blackbody whose chromaticity most nearly resembles that of the light source.

Downtown. The area encompassing the Westerly Portion of Downtown as defined in Section 17.08.591 of this Code.

Footcandle. The unit of measure expressing the quantity of light received on a surface. One footcandle is one lumen per square foot.

Fully-shielded. A luminaire constructed and installed in such a manner that all light emitted by the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the lowest light-emitting part. A luminaire that is full cutoff meets the fully-shielded requirement.

Glare. Intense and blinding light that reduces visibility. A light within the visual field that is sufficiently greater than the brightness to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance or visibility.

Human-activity areas. Areas such as driveways, parking lots, walkways, decks, porches, seating areas, entryways, and other outdoor spaces with such improvements that facilitate gathering, wayfinding, and/or transportation.

Installation. Art, monuments, or any other outdoor features, whether owned publicly or privately, that are meant for public enjoyment and are visible from a public right-of-way or public access easement.

Light trespass (or “trespass”). The encroachment of light, typically across property boundaries, measured in foot-candles at ground level.

Lighting. Electric, manufactured, or artificial lighting.

Lighting plan. A document(s) (site plan, schedule, et cetera) and accessory materials (specification sheet(s), et cetera) that contains sufficient evidence demonstrating compliance with all of the relevant provisions of this ordinance including, but not limited to, light source, height, fixture, footcandle, and lumens.

Lumen. The unit of measure used to quantify the amount of light produced by a lamp or emitted from a luminaire (as distinct from “watt,” a measure of power consumption).

Luminaire. A complete lighting unit consisting of a light source and ballast(s) or driver(s) (when applicable), together with the parts designed to distribute the light, to position and

protect the light source(s), and to connect the light source(s) to the power supply.

Luminous elements. The lamp (light bulb), any diffusing elements, and surfaces intended to reflect or refract light emitted from the lamp individually or collectively comprise the luminous elements of a luminaire.

Nonresidential. Properties with commercial, industrial, mixed-use, and/or multi-family buildings of seven (7) dwellings or more.

Outdoor lighting. Lighting installed within the property line and outside the building envelopes, whether attached to poles, building structures, the earth, or any other location; and any associated lighting control equipment.

Outdoor recreation facilities. Outdoor areas with playing surfaces that are accessible to the public or are used for private commercial purposes.

Prohibited lighting. Those certain types of lighting described in Section 17.26.040(C).

Residential. Single-family homes, duplexes, town houses, row houses, and multi-family buildings of six (6) dwellings or fewer.

Redevelopment. Any new construction on a parcel or lot following a substantial demolition on such parcel or lot.

Substantial addition, nonresidential. Building additions or new or replacement structures comprising 25% or more of the existing building(s) total square footage, inclusive of all floors, on a parcel or lot. An addition concerning only one single unit within a building containing multiple units, which does not represent an increase of 25% or more to the building square footage, shall not constitute a substantial addition.

Substantial alteration. Changes to 25% or more of the exterior wall area or materials (excluding roofing) of an existing building, which changes do not result in a substantial demolition, substantial addition, or redevelopment.

Substantial demolition. The demolition, removal, or scrape of an existing building(s) comprising 25% or more of the total footprint of all existing buildings on a parcel or lot.

Top-down. Lighting element that does not result in uplighting.

Uplighting. Lighting element which directs light above a horizontal plane running through the lowest point of the luminous elements.

Sec. 17.26.030. Applicability & Scope.

- A. Except as otherwise provided herein, the provisions of this Chapter are applicable to all outdoor lighting within the City.
- B. **New and replacement lighting.** Except as otherwise provided herein, all outdoor lighting installed after the effective date of the ordinance codified herein shall fully comply with the requirements of this Chapter. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether attached to structures, poles, the earth, or any other location, including lighting installed by any third party.

- C. **Nonconforming status.** All existing outdoor lighting that was legally installed before the effective date of this Chapter, that does not conform to the standards specified herein, shall be considered nonconforming. Nonconforming outdoor lighting is allowed to remain and may be maintained in good repair until required to be replaced pursuant to the terms of this Chapter.
1. **Substantial alterations.** If a substantial alteration occurs on a nonresidential or residential building, all nonconforming outdoor lighting on the building shall be eliminated or replaced with outdoor lighting that conforms to the requirements of this Chapter.
 2. **Nonresidential substantial additions, demolitions, and redevelopment.** If a substantial addition, substantial demolition, or redevelopment occurs on a nonresidential property, then the owner shall eliminate or replace all nonconforming outdoor lighting on the property such that all outdoor lighting on the entire property conforms to the requirements of this Chapter; except that: (i) existing outdoor lighting on poles used to illuminate parking lots, drive aisles, and other automobile-related hardscape are exempt from the twenty (20) foot height restriction in Section 17.26.040(C)(7); and (ii) existing outdoor lighting on safety bollards used to exclude vehicles may continue to be maintained in good repair until such time as the property owner or occupant determines the bollards must be replaced, at which time the outdoor lighting on such replacement bollards shall fully comply with the requirements of this Chapter. Notwithstanding the foregoing, if the owner of a single unit within any building containing more than one unit, commences a substantial addition concerning only such single unit, then the owner must eliminate or replace only such nonconforming outdoor lighting that (a) is attached to the unit and accessory buildings serving the unit, or (b) otherwise serves that portion of the property owned, or reserved for exclusive use, by such owner.
 3. **Residential additions.** If an addition occurs on a residential building, then the owner shall eliminate or replace all nonconforming outdoor lighting on the property such that all outdoor lighting on the entire property conforms to the requirements of this Chapter. A residential addition constitutes any addition of square footage to an existing building(s) total square footage, inclusive of all floors, on a parcel or lot.
- D. **Waiver Criteria for Nonresidential Uses.** Any request for a waiver from the standards of this Chapter for nonresidential development shall follow the procedures and criteria set forth in Chapter 17.28 for approval of a final Planned Unit Development.
1. In addition to the criteria outlined in Chapter 17.28, the City Council may grant a waiver only if it finds that all of the following requirements, insofar as applicable, have been satisfied:
 - i. That there is a specific need for illumination that cannot be

achieved through compliance with this Chapter or through non-illuminated design elements.

- ii. That the waiver, if granted, is a minimum waiver that will afford relief and is the least modification of the provisions of this Chapter.
- iii. That the proposed lighting does not negatively impact adjoining properties and is appropriate with the character of the area.
- iv. That the waiver will not result in light emitted from outdoor lighting to exceed the limits established in Section 17.26.070.

- 2. Any request for a waiver shall include a lighting plan and supporting documentation to demonstrate compliance with the waiver criteria.

E. Variance Criteria for Residential Uses. Any request for a variance from the standards of this Chapter for residential development shall follow the procedures and criteria set forth in Chapter 17.48 for the granting of a variance by the Board of Adjustment.

- 1. In addition to the criteria outlined in Chapter 17.48, the Board of Adjustment may grant a variance only if it finds that all of the following requirements, insofar as applicable, have been satisfied:
 - i. That there is a specific need for illumination that cannot be achieved through compliance with this Chapter or through non-illuminated design elements.
 - ii. That the variance, if granted, is a minimum waiver that will afford relief and is the least modification of the provisions of this Chapter.
 - iii. That the proposed lighting does not negatively impact adjoining properties and is appropriate with the character of the area.
 - iv. That the variance will not result in light emitted from outdoor lighting to exceed the limits established in Section 17.26.070.
- 2. Any request for a variance shall include a lighting plan and supporting documentation to demonstrate compliance with the waiver criteria.

Sec. 17.26.040. General Regulations.

All outdoor lighting is subject to the general regulations below except where stated otherwise in this Chapter.

- A. **Fully shielded.** All outdoor lighting shall be fully shielded, as such term is defined in Section 17.26.020. Examples of fully shielded outdoor lighting fixtures may be found in Appendix C to Title 17 of this Code.
- B. **Color.** All outdoor lighting shall have a Correlated Color Temperature (CCT) of 3000 Kelvin or lower.

C. ***Prohibitions.*** The following lighting is prohibited:

1. Lighting that may be confused with warning, emergency, or traffic signals.
2. Mercury vapor lamps.
3. Aerial lasers, such as are intended to be directed upward or for extended distances.
4. Blinking or flashing lights except as specifically allowed in Section 17.26.080.
5. Searchlights, floodlights, or spotlights, except as required by county, state, or federal law; or as used for police, firefighting, emergency management, or medical personnel at their discretion as long as the emergency exists.
6. Uplighting.
7. Lighting at or above twenty (20) feet above grade, except lighting affixed to a building that is used to illuminate second-story and above human-activity areas, such as decks and rooftop patios.

D. ***Additional Criteria for Nonresidential Planned Unit Developments (PUDs).***

The lighting plan in a nonresidential PUD shall meet each of the following criteria, insofar as applicable.

1. Multi-family residential developments with seven (7) or more dwellings and mixed-use developments containing residential uses shall minimize the impact of outdoor lighting on dwelling units within such developments, which may be accomplished through means such as height limitations, low CCT, shielding, and lighting directed away from dwellings. The planning commission or the city council, as applicable, may consider and impose conditions of approval to the extent such conditions are reasonably necessary to ensure compliance with the requirements of this subsection.
2. Developments containing outdoor public spaces of one-half (.5) acre or more, including but not limited to public parks, plazas, and designated open space, shall design lighting to minimize light trespass onto such outdoor public spaces, and shall incorporate other design elements to further limit the impact of outdoor lighting on such outdoor public spaces, such as the use of shielding, lower mounting heights, and lower CCT than required by this Chapter. The planning commission or the city council, as applicable, may consider and impose conditions of approval to the extent such conditions are reasonably necessary to ensure compliance with the requirements of this subsection.
3. Lighting for outdoor recreation facilities shall meet the following requirements:

- i. Luminaires shall be fully shielded or shielded to the greatest extent practical to eliminate uplighting and limit illumination of all other non-targeted areas.
- ii. Lighting is subject to trespass standards for Nonresidential uses in Section 17.26.070.
- iii. Lighting shall have a nominal CCT of no greater than 5700 Kelvin.
- iv. Lighting controls shall provide local or remote manual control with at least two (2) preset light levels.
- v. Lights shall be automatically extinguished by one (1) hour after the end of play or when not in use.

Sec. 17.26.050. Residential Uses.

In addition to the General Requirements of Section 17.26.040, residential outdoor lighting shall meet the following standards:

- A. ***Lumens cap.*** All outdoor lighting shall have a cap of 2,000 lumens per luminaire.
- B. ***Lighting plans.*** Building permits for new construction and substantial additions and alterations must include lighting plans that demonstrate compliance with applicable regulations of this Chapter.
- C. ***Replacement Lighting.*** Replacement lighting that does not require a building permit and that is not part of a substantial addition or alternation, such as new bulbs and fixtures, must be compliant with applicable regulations of this Chapter.

Sec. 17.26.060. Nonresidential Uses.

In addition to the General Requirements of Section 17.26.040, nonresidential outdoor lighting shall meet the following standards:

- A. ***Lumens cap.***
 - 1. All outdoor lighting used to illuminate nonresidential parking lots, drive aisles, and other automobile-related hardscape shall have a cap of 20,000 lumens per luminaire, except that outdoor lighting for gas station canopies shall have a cap of 10,000 lumens per luminaire.
 - 2. All other outdoor lighting shall have a cap of 5,000 lumens per luminaire.
- B. ***Downtown.*** Outdoor lighting in the Downtown is subject to the regulations set forth in Section 17.26.065 and exempt from the regulations of this section.
- C. ***Uniformity & Illumination for Human-Activity Areas***

1. Uniformity standards do not have to be met when the areas regulated by these standards are not in use and lights are turned off.
2. Outdoor lighting that illuminates human-activity areas shall meet the following requirements for light levels when fully illuminated:

Illuminated Surface	Min. Light Level (footcandles)	Max. Light Level (footcandles)
Auto Dealerships:		
Front Row & Featured Displays	---	15.0
Other Merchandise Areas	---	10.0
Parking Lots	0.2	4.5
Vehicular Entrances from Right-of-Way	1.0	4.5
Automobile Service-Station Pumping Areas (under canopy)	--	15.0
Drive-In/Drive-Through	--	5.0
Building Entrance and Exit	1.0	5.0
Pedestrian Walkways and Common Areas	--	3.0
Automatic Teller Machines (ATMs)	--	15.0 ¹
Stairways and Steps	1.0	5.0
The Zoning Administrator has the authority to assign a category if the correct category is not readily apparent.		

¹ Within a 10-foot radius from the ATM measured from the center face of the ATM and extends a total of 180 degrees.

3. Outdoor lighting used to illuminate the surface of any human-activity area should be located and positioned in a manner that ensures consistent brightness and minimizes light contrast as one travels through the illuminated area. The minimum-to-maximum light level ratio on the illuminated surface of any human-activity areas shall not exceed a brightness ratio of four-to-one (4:1) when fully illuminated.

Sec. 17.26.065. Nonresidential Uses in the Downtown.

- A. All outdoor lighting in Downtown is subject to the General Requirements in Section 17.26.040.
- B. All outdoor lighting in the Downtown shall have a cap of 2,000 lumens per luminaire, except that parking lot lights shall have a cap of 10,000 lumens per luminaire.
- C. Outdoor lighting in the Downtown is not subject to the standards set forth in Section 17.26.060.

Sec. 17.26.070. Light Trespass

Regulations in this section apply to outdoor lighting in all use zones. Light emitted from outdoor lighting on any property shall not cause the light level along any property line, as measured at grade, to exceed the following limits:

Emitting Use	Impacted Use	Max. Light Level
Residential	Open Space (OS) and Agricultural (A) zone districts, and public parks, plazas, or other outdoor public spaces of .5 acres or larger	0.1 footcandles measured at the property line.
Nonresidential (except Downtown)	Residential uses, Open Space (OS), and Agricultural (A) zone districts	
Downtown nonresidential	Residential	Not subject to trespass restrictions.
Residential	Residential	
Commercial	Commercial	

Sec. 17.26.080. Exceptions.

- A. The following outdoor lighting applications are exempt from all requirements of this Chapter:
1. Decorative lighting provided by a flame source, except that gas-fired lighting appliances are prohibited.
 2. Underwater lighting used for the illumination of swimming pools and other water features.
 3. Lighting solely for the purpose of the internal or external lighting of signage in compliance with the City of Louisville Sign Code adopted pursuant to Section 17.24.010.
 4. Portable lighting temporarily used for maintenance or repair.
 5. Emergency lighting used for police, firefighting, emergency management, or medical personnel at their discretion as long as an

emergency exists.

6. Temporary lighting required for road construction or other public improvements.
 7. Lighting within public right-of-way for the principal purpose of illuminating streets or roads. No exemptions shall apply to any lighting within the public right-of-way when the principal purpose of the luminaire is to illuminate areas outside the public right-of-way.
 8. Lighting required by county, state, or federal law.
 9. Outdoor luminaires for holiday décor with a maximum of 180 lumens per luminaire. Blinking or flashing holiday decorations are prohibited on nonresidential properties.
 10. Lighting for temporary events such as carnivals, circuses, festivals, fairs, civic events, when approved through a Temporary Use Permit pursuant to Chapter 17.60 or a Special Event Permit pursuant to Chapter 14.16, which may be subject to conditions of approval, including but not limited to shielding requirements, uplighting restrictions, and curfews. Uplighting is prohibited during peak migratory wildlife seasons, the duration of which will be communicated to the event holder at the time of permit application.
- B. The following outdoor lighting applications are exempt from the shielding requirements of this ordinance, provided they are (1) used to illuminate a human-activity area as defined in Section 17.26.020, and (2) turned off each day by 11 PM for multi-family properties, mixed use properties containing residences, and properties meeting the definition of residential, or thirty (30) minutes after closing or the completion of activities for nonresidential properties (excluding multi-family properties and mixed use properties containing residences):
1. For multi-family properties, mixed use properties containing residences, and properties meeting the definition of residential uses, outdoor luminaires with a maximum output of up to eighty (80) lumens per luminaire, regardless of the number of bulbs.
 2. For nonresidential uses, except multi-family properties and mixed use properties containing residences, outdoor luminaires with a maximum output of up to 180 lumens per luminaire, regardless of the number of bulbs.
- C. Lighting of flagpoles and installations, as such term is defined in Section 17.26.020, is not subject to height restrictions in Section 17.26.040(C), provided that the lighting is a top-down, does not result in uplighting, and is fully shielded to illuminate only the flag(s) or installation(s).
- D. Motion-activation lighting if such lighting is not illuminated for more than five (5) minutes upon activation, and does not exceed 2,000 lumens per

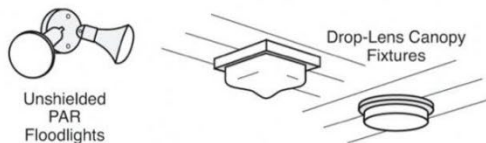
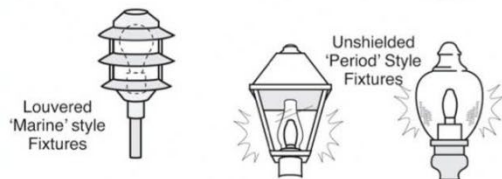
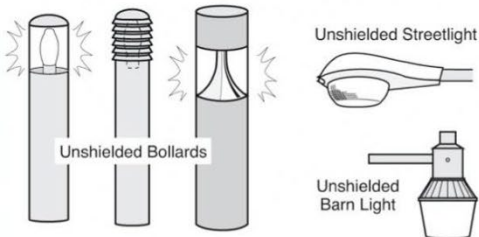
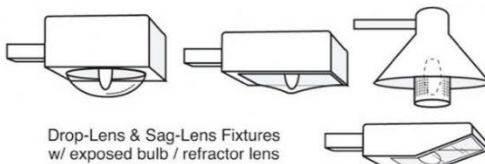
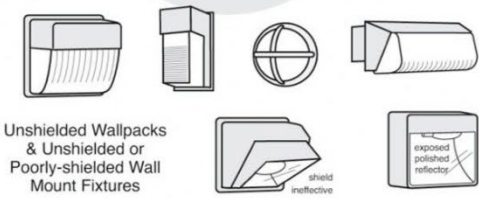
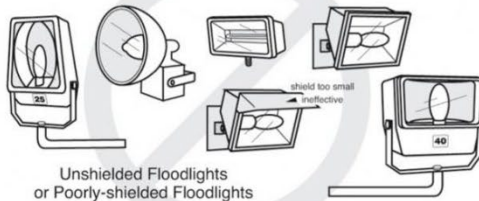
luminaire, subject to the light trespass requirements in Section 17.26.080.

Section 2. Title 17 of the Louisville Municipal Code is amended by the addition of a new Appendix C, titled Outdoor Lighting Fixtures, to read as follows:

Examples of Code-Compliant and Non-Compliant Lighting Fixtures

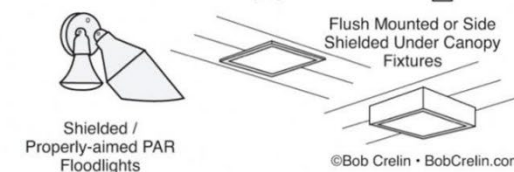
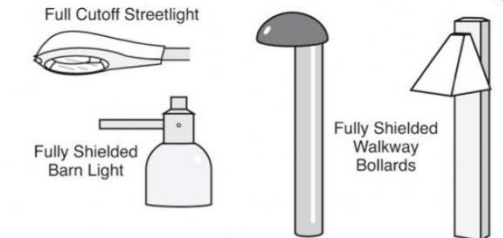
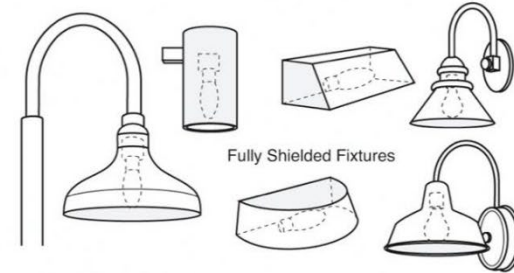
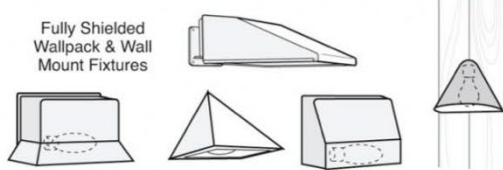
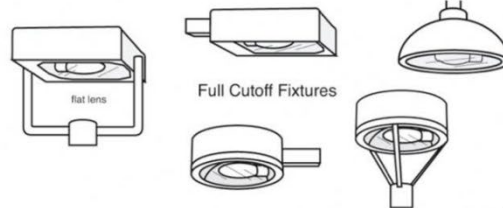
Non-Compliant

Fixtures that produce glare and light trespass



Code-Compliant

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



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Section 3. Section 8.1 of the City of Louisville Commercial Development Design Standards and Guidelines is hereby repealed and reenacted to read as follows:

8.1 Compliance with Outdoor Lighting Code.

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as may be amended from time to time.

Section 4. Sections 8.2 through 8.7 of the City of Louisville Commercial Development Design Standards and Guidelines are hereby repealed in their entirety.

Section 5. Section 8.1 of the City of Louisville Industrial Development Design Standards and Guidelines is hereby repealed and reenacted to read as follows:

8.1 Compliance with Outdoor Lighting Code

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as may be amended from time to time.

Section 5. Sections 8.2 through 8.5 of the City of Louisville Industrial Development Design Standards and Guidelines are hereby repealed in their entirety.

Section 6. Section 2.2.1 of the City of Louisville Industrial Development Design Standards and Guidelines are hereby amended by the addition of a new subsection L1, to read as follows:

L1. Compliance with Outdoor Lighting Code

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as may be amended from time to time.

Section 7. All provisions of the Design Handbook for Downtown Louisville concerning outdoor lighting are hereby repealed to the extent such provisions purport to regulate lighting outside of public rights-of-way.

Section 8. Section 14 of the Mixed Use Development Design Standards and Guidelines, concerning Exterior Site Lighting, is hereby repealed and reenacted to read as follows:

14. Compliance with Outdoor Lighting Code

Outdoor lighting shall comply with the Chapter 17.26 of the Louisville Municipal Code, as may be amended from time to time.

Section 9. If any portion of this ordinance is held to be invalid for any reason such decisions shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part hereof irrespective of the fact that any one part be declared invalid.

Section 10. The repeal or modification of any provision of the Municipal Code of the City of Louisville by this ordinance shall not release, extinguish, alter, modify, or change in whole or in part any penalty, forfeiture, or liability, either civil or criminal, which shall have been incurred under such provision, and each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings, and prosecutions for the enforcement of the penalty, forfeiture, or liability, as well as for the purpose of sustaining any judgment, decree, or order which can or may be rendered, entered, or made in such actions, suits, proceedings, or prosecutions.

Section 11. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portions hereof are hereby repealed to the extent of such inconsistency or conflict.

INTRODUCED, READ, PASSED ON FIRST READING, AND ORDERED
PUBLISHED this XX day of _____, 2023

_____, Mayor

ATTEST:

_____, City Clerk

APPROVED AS TO FORM:

City Attorney