

AVON ZONING ORDINANCE

CHAPTER 14. REVISION HISTORY

CHAPTER 14. PERFORMANCE STANDARDS

<b>Ordinance #</b>	<b>Plan Commission Approval Date</b>	<b>Town Council Adoption Date</b>	<b>Description</b>
2002-14	09-24-02	11-14-02	Adoption of Chapter 14.
2011-10	05-23-11	06-09-11	Section 15(11)(E): Waiver of Lighting Standards

# AVON ZONING ORDINANCE

## CHAPTER 14. PERFORMANCE STANDARDS

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- Section 14-1. Application of Performance Standards
  - Section 14-2. Compliance with Performance Standards
  - Section 14-3. Enforcement
  - Section 14-4. Toxic Mater
  - Section 14-5. Fire and Explosion Hazards
  - Section 14-6. Glare or Heat
  - Section 14-7. Odor
  - Section 14-8. Noise
  - Section 14-9. Vibration
  - Section 14-10. Dust and Air Pollution
  - Section 14-11. Nuisance
  - Section 14-12. Electromagnetic Interference
  - Section 14-13. Water Pollution
  - Section 14-14. Outdoor Storage
  - Section 14-15. Outdoor Lighting
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### **Section 14-1. Application of Performance Standards**

All uses shall comply with the performance standards established in this Chapter, unless any federal, state, county, or local ordinance, law or regulation establishes a more restrictive standard in which event the more restrictive standard shall apply.

### **Section 14-2. Compliance with Performance Standards**

When tests by the Zoning Administrator indicate a possible violation of these performance standards, the Zoning Administrator shall require the property owner to obtain and bear the cost of the qualified technical assistance to ascertain the exact amount of emissions of noxious effects at the lot lines of the property in question. The results of the test or tests shall be presented to the Plan Commission in writing.

### **Section 14-3. Enforcement**

Enforcement of the performance standards shall be the duty of the Zoning Administrator pursuant to Chapter 19 (Enforcement).

### **Section 14-4. Toxic Matter**

The storage, handling, or transport of toxic substances shall comply with all federal laws and regulations, all state laws and regulations, and all county and local ordinances, laws, and regulations regarding the storage, handling, or transport of toxic material. No use shall discharge across the boundaries of its lot toxic matter so as to endanger the public health, safety, or general welfare, or cause injury or damage to an abutting or adjoining property. Neither shall toxic matter be discharged into any streams or ground water running through the lot.

### **Section 14-5. Fire and Explosion Hazards**

Materials that present potential fire and explosive hazards shall be transported, stored and used only in conformance with all applicable federal, state, and local ordinances and laws.

### **Section 14-6. Glare or Heat**

Any operation producing intense glare or heat shall be performed within a completely enclosed building

## AVON ZONING ORDINANCE

or structure in such a manner as not to create a public nuisance or hazard along lot lines. Glare resulting from plant operations shall not exceed the limits set forth below for outdoor lighting. Heat resulting from plant operations shall not be perceptible beyond the lot lines without the aid of special instruments.

### Section 14-7. Odor

Emission of noxious, objectionable or annoying odor in such quantities as to be detectable at any point along a lot boundary without the aid of special instruments is prohibited.

### Section 14-8. Noise

Sound levels shall be measured with a sound level meter and associated octave band filter manufactured according to standards prescribed by the American Standards Association. Measurements shall be made using the flat network of the sound level meter. Pure tone and impulsive type noises shall be subject to the performance standards hereinafter prescribed, provided that such noises shall be capable of being accurately measured with such equipment. Noises capable of being so measured, for the purpose of this Ordinance, shall be those noises with a measurable variation of no more than plus or minus two (2) decibels. Noises incapable of being so measured, such as those of an irregular and intermittent nature, shall be controlled so as not to become a nuisance to adjacent uses. At no point on the boundary of a district shall the sound intensity level of any individual operation or plant exceed the decibel levels in the designated octave bands.

Octave Band (Frequency Cycles per Second)	Maximum Permitted Decibels Along Residential District Boundaries	Sound Level (Decibels) Along Business District Boundaries
0 to 75	72	75
76 to 150	67	70
151 to 300	59	63
301 to 600	52	57
601 to 1200	46	52
1201 to 2400	40	45
2401 to 4800	34	40
Above 4800	32	38
A Scale <sup>1</sup>	56	60

<sup>1</sup> For monitoring purposes only.

The prescribed limits for sound levels along residential district boundaries shall apply between the hours of 8:00 AM and 6:00 PM. At other times, the allowable sound levels in each octave band are each reduced by six (6) decibels. Public safety sirens and related apparatus used solely for public safety purposes shall be exempt from the aforementioned noise standards.

### Section 14-9. Vibration

No use, operation, or activity shall cause, at any time, ground transmitted vibrations in excess of the limits set forth below. Such standards shall not apply to activities conducted during construction.

Vibration (the periodic displacement measured in inches of earth)	
Maximum Permitted Frequency (Cycles per Second)	Displacement Along Manufacturing District Boundaries
0 to 10	.0008
11 to 20	.0005
21 to 30	.0002
31 to 40	.0001
40 and over	.00005

### Section 14-10. Dust and Air Pollution

1. Dust and other types of air pollution borne by the wind from sources such as storage areas, yards, roads, conveying equipment and the like within lot boundaries shall be kept to a minimum by appropriate landscaping, screening, sheltering, paving, oiling, fencing, wetting, collecting or other

# AVON ZONING ORDINANCE

acceptable means.

2. No person shall cause or allow the emission of fugitive particulate matter across lot lines which is visible by an observer looking generally toward the zenith, beyond the property line. This requirement shall not apply when the wind speed is greater than 40.2 kilometers per hour (25 miles per hour). Determinations of wind speed for the purposes of this rule shall be by a one (1) hour average or hourly recorded value at the nearest official station of the US Weather Bureau or by wind speed instruments operated on the site.

## Section 14-11. Nuisance

No use shall be operated or maintained which creates an environmental detriment or public nuisance, including but not limited to visual clutter created by excessive signage, lighting, or outdoor storage; noise or odors as defined herein; or other noise and odors such as those created by pets or garbage.

## Section 14-12. Electromagnetic Interference

1. Electromagnetic interference from any operations of any use in any district shall not adversely affect the operation of any equipment located off the zoning lot on which such interference originates.
2. Structures (including communications facilities) in all commercial districts, shall be constructed and/or maintained so as to provide for in-building public safety communications coverage. Additionally, structures (including communications facilities) in all districts shall be constructed and/or maintained so as to prevent interference with existing public safety communications.

## Section 14-13. Water Pollution

All uses shall comply with the State of Indiana rules and regulations regarding prevention of water pollution.

## Section 14-14. Outdoor Storage

Outdoor storage of fuel, raw materials and flammable products within two hundred 200 feet of a residential district, shall be enclosed by a fence, wall or plant materials adequate to conceal such storage from adjacent properties and public right-of-way. No outdoor storage of fuel, raw materials and flammable products shall be permitted within fifty (50) feet of a residential district or use.

## Section 14-15. Outdoor Lighting

All areas containing outdoor lighting, including but not limited to floodlighting, security lighting, or parking lot lighting shall comply with the requirements of this Chapter.

### 1. Light Trespass

All areas containing outdoor lighting (except street lighting) shall limit light spillage onto adjacent property, when measured at any point along a property line to the requirements set forth below. Compliance shall be achieved by utilizing fixture shielding, directional control designed into fixtures, fixture location, height, or aim, or a combination of these or other factors.

Adjoining Districts	Maximum Light Spillage to Adjoining Districts Measured in <u>Vertical</u> Foot-candles
E-1, R-1, R-2, R-3, R-4, R-5, MHP, Residential PUD, Residential/Commercial PUD	0.10
C-1, C-2, C-3, C-4, SC-1, Commercial PUD, Commercial/Industrial PUD, I-1, I-2, I-3, I-4, Industrial PUD, Public Right-of-Way	0.30

# AVON ZONING ORDINANCE

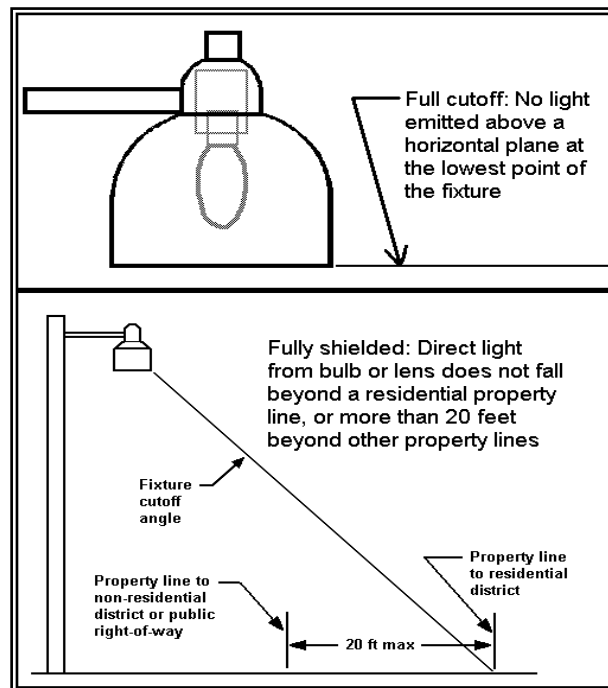
## 2. Illumination of Buildings and Other Vertical Structures

When buildings or other structures are illuminated, the design for the illumination must be in accordance with the following:

- A. The illumination of buildings shall be limited to security or highlighting architectural features. Security lighting shall be limited to illumination of doorways, windows, or other points of entry. Building lighting used for purposes other than security lighting shall not emit more than 1200 lumens and shall be full cut-off.
- B. Lighting fixtures shall be located and/or aimed such that light is directed only onto the building surface. All fixtures used to illuminate buildings shall be fully shielded.
- C. For statues, monuments, fountains, or other objects for which it may not be possible to reliably and consistently illuminate with downward lighting, upward lighting may be used only in the form of spotlights which confine the illumination to the object of interest.
- D. If upward lighting is used to illuminate flags, only spotlights shall be used; floodlights directed above the horizontal shall not be used to illuminate a flag.

## 3. Parking Lot Lighting

All lighting fixtures serving parking lots shall be full cutoff fixtures. The maximum average maintained illumination level for a parking lot shall be no more than 1.6 horizontal foot-candles at grade level, and the ratio of the average illumination to the minimum illumination shall not exceed 4:1. Parking lot minimum illumination shall be no less than 0.1 horizontal foot-candles at grade level any time the use of the parking lot is required by the general public to access an open business or public gathering. Light fixtures located on the perimeter of parking lots and within 20 feet of a property line shall utilize IESNA Type IV forward throw optical distribution and/or “house-side” shielding to minimize light spillage with respect to that property line.



## 4. Lighting of Exterior Display or Open Sales Areas

Areas designated as exterior display or open sales areas shall be illuminated so that the average maintained horizontal illumination at grade level is no more than four (4) foot-candles, and the ratio of average to minimum illumination shall not exceed 4:1. The average and minimum shall be computed for only that area designated as exterior display or open sales area. Light fixtures shall be full cutoff, and those located less than a distance equal to three (3) times the fixture mounting height from a residential property line, or two (2) times the fixture mounting height from other property lines, shall use internal or external shielding to limit light spillage with respect to that property line.

## 5. Lighting of Walkways, Bikeways, Parks and Playgrounds

## AVON ZONING ORDINANCE

Where special lighting is to be provided for walkways, bikeways, or parks, the following requirements shall apply.

- A. The walkway, pathway, or ground area shall be illuminated to a level of no more than 0.5 average horizontal foot-candles.
- B. The vertical illumination levels at a height of five (5) feet above grade shall be no more than 0.5 average vertical foot-candles.
- C. Lighting fixtures shall be designed to direct light downward, and the initial output of light sources shall not exceed one thousand (1,000) lumens.

### 6. Lighting of Canopies and Bays

- A. The average maintained horizontal illumination at grade level under canopies shall not exceed fifteen (15) foot-candles, and the ratio of average to minimum illumination shall not exceed 4:1.
- B. Areas used for parking or vehicle storage shall be illuminated in accordance with the requirements for Parking Lot Lighting.
- C. Light fixtures mounted on or under canopy ceilings shall be full cutoff, unless indirect lighting is used whereby light is directed upward and then reflected down from the ceiling of the structure. In this case, light fixtures must be shielded so that direct illumination is focused exclusively on the ceiling of the structure.
- D. Lights shall not be mounted on the top or sides of a canopy, and the sides of a canopy shall not be illuminated.
- E. Lighting for drive-through bays must be fully shielded as if located outside

### 7. Outdoor Activity Facilities

- A. Outdoor activity facilities may have unique lighting needs pertaining to the performing or playing area. A design plan for such a facility shall detail the lighting requirements of the performing or playing area and how unwanted glare, illumination of surrounding streets and properties, and nighttime atmospheric light pollution will be minimized.
- B. Limits on light trespass appearing in Section 14-15[1] apply to such outdoor facilities. If floodlighting is used in place of full cutoff fixtures, the center beam shall be aimed below the horizontal plane at an angle not less than  $\frac{1}{2}$  the angular beam spread of the fixture. Glare shall be controlled by fixture design, location, and shielding, natural or positioned obstructions on the parcel where the facilities are located. Every such lighting system design and installation shall be certified by a registered engineer as conforming to all applicable restrictions of this Ordinance.
- C. Except for professional or amateur events covered by intrastate televised broadcast, thirty (30) foot-candle horizontal illumination of the playing field or performing area shall not be exceeded. Parking facilities, walkways, and other lighting applications associated with venues for the outdoor activities covered herein shall conform to the requirements specified in the sections of this ordinance applicable to those lighting applications.

### 8. Street Lighting

- A. All new, repaired, or replaced Street Lights shall be of a kind adopted by the Town, including:
  - (a) the STL Structural™ Outdoor Cutoff Luminaire with full cutoff option where its application is, subject to scale of the street, appropriate. Further, the fixture shall be mounted with the Truss structural option
  - (b) the BNS1 Bounce™ Pedestrian Scale Luminaire with full cutoff option

## AVON ZONING ORDINANCE

### B. Alternative Street Lights

- (a) Any street light fixtures that are not the adopted Town standard shall be full cutoff. The Zoning Administrator may approve alternative full cutoff fixtures.
- (b) Any other street light fixtures must be approved by the Plan Commission and must meet the Illuminating Engineering Society of North America (IESNA) criteria for cutoff fixtures. In no case shall the resulting illumination exceed levels currently recommended by the IESNA in publication RP-8, American National Standard Practice for Roadway Lighting.

C. The location of street light fixtures shall be approved by the Public Works Director.

### 9. Neon Lighting

Light sources consisting of glass tubes filled with neon, argon, krypton, or other similar gas (hereafter referred to as "neon lighting") are excluded from shielding and line-of-sight requirements, however such lighting shall be included in the light trespass requirements of Section 14-15[1]. Neon lighting shall not be considered as security lighting.

### 10. Other Outdoor Lighting

- A. Outdoor lighting not otherwise specified in this Ordinance emitting more than 1200 lumens (except motion detector activated lighting) shall be full cutoff and fully shielded. Bulbs in outdoor light fixtures emitting from 600 to 1200 lumens may be installed in fixtures that are not full cutoff and may be visible from the property line provided, however, such bulbs shall be frosted glass or covered by frosted glass or other similarly translucent material.
- B. A spotlight or floodlight of less than 1800 lumens need not be full cutoff or fully shielded if its center beam is aimed at a point not beyond any property lines and no less than forty five (45) degrees below horizontal, is used for security lighting purposes only, and is motion detector activated and cycles off within five minutes after the cessation of motion within its field of view. Such security lighting shall not be activated by normal business or resident activity.
- C. Tower or antenna lighting shall not be permitted unless required by the Federal Aviation Administration.
- D. The use of search lights, laser lighting, or lights that pulse, flash, rotate or simulate motion for advertising or promotions is prohibited.

### 11. Lighting Plan

Wherever a lighting plan is required by this Ordinance, such plan shall become an integral part of any development review application. No improvement location permit shall be issued without first obtaining approval of a required lighting plan. A lighting plan shall include the following:

- A. A plan showing buildings, landscaping, parking areas, and the locations of all proposed exterior lighting fixtures, with designation of cutoff and/or shielded fixtures;
- B. A description of the outdoor light fixtures which may include but is not limited to manufacturer's catalog cuts, photometric report with candela distribution, drawings, and shielding information;
- C. Analysis and illuminance level diagrams showing that the proposed installation conforms to the lighting level standards in this ordinance.
- D. Changes to an approved lighting plan shall be subject to review and approval by the Zoning Administrator.
- E. Waiver of Lighting Standards
  - a. The provisions of Chapter 14, Section 15, Sub-Sections 1 through 10 may be waived in

## AVON ZONING ORDINANCE

accordance with the terms of Chapter 4-8(7)D.

### 12. Enforcement

Failure to adhere to the requirements of this Section 14-15 or an approved lighting plan shall be deemed a violation of this Ordinance and subject to the procedures of Chapter 19 (Enforcement).

### 13. Exceptions

- A. The temporary use of low wattage or low voltage lighting for public festivals, celebrations, and the observance of holidays are exempt from this Ordinance except where they create a hazard or nuisance from glare. However, consideration to light trespass requirements shall be demonstrated prior to commencing the use of the temporary lighting.
- B. Emergency lighting and traffic control lighting shall be exempt from the requirements of this Section.

### 14. Lights not Conforming to this Chapter

#### A. Authority to Continue

Any lawful lighting fixtures located within the Town at the effective date of this Ordinance or which shall come to be located in Town as a result of annexation after the effective date of this Ordinance, which does not conform to the provisions of this Chapter, may continue provided the lighting remains in conformance with the provisions of this Subsection.

#### B. Ordinary Maintenance and Repair

Nothing in this Section shall relieve the owner or beneficial user of legal nonconforming lighting, or the owner of the property on which the legal nonconforming lighting is located, from the provisions of this Chapter regarding safety, maintenance, and repair. Normal maintenance, including replacing light bulbs, cleaning, or routine repair of legal nonconforming light fixtures, shall not be deemed to be a condition which triggers a loss of lawful status described below, unless such maintenance increases the nonconforming aspects of the lighting.

#### C. Loss of Lawful Status

(a) Legal nonconforming status shall terminate under the following conditions:

- (1) if a light fixture is no longer used for a period of six (6) months it shall be deemed abandoned and shall not thereafter be reestablished; or
- (2) if a lighting fixture is structurally altered such that its nonconforming aspects increase; or
- (3) if a lighting fixture is relocated, replaced, or moved in any way; or the lighting fixture is damaged and the cost of repair exceeds fifty percent of its replacement value.

(b) Upon the event of any of the aforementioned, the lighting fixture(s) shall be immediately brought into compliance with this Chapter, or the lighting fixture(s) shall be removed.

#### D. Removal Pursuant to Public Order

Lighting found by a governmental agency to create public hazard can be ordered removed or altered at any time.