# SECTION 14-19-10 WESTERN SKY ORDINANCE

#### **SECTIONS**

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### 14-19-10-1 GENERAL PURPOSE

A. PURPOSES: THE PURPOSE OF THIS ORDINANCE IS TO ENCOURAGE THE QUANTITY AND LEVEL OF LIGHTING NECESSARY FOR SAFETY, SECURITY AND THE ENJOYMENT OF OUTDOOR LIVING. THE TYPE OF LIGHTING AND THE LOCATION OF LIGHTING FIXTURES ARE KEY COMPONENTS OF EFFECTIVE LIGHTING. IT IS THE INTENT OF THIS ORDINANCE TO EFFECTIVELY LIGHT AREAS WITH LIGHTING FIXTURES THAT LIMIT GLARE AND DIRECT LIGHT ONTO THE AREA TO BE LIT.

THE PURPOSE OF THIS ORDINANCE IS TO ASSIST IN IMPLEMENTING THE WICKENBURG GENERAL PLAN THAT INCLUDES THE FOLLOWING OBJECTIVE AND REGULATION STATEMENTS:

"REGULATE LIGHT POLLUTION BY ENACTING LOCAL DARK SKY ORDINANCES"
"DEVELOP DESIGN AND BUFFERING TECHNIQUES TO REDUCE AND CONTROL LIGHT AND NOISE POLLUTION"

EFFECTIVE OUTDOOR LIGHTING ENHANCES THE TOWN'S CHARACTER AND IDENTITY, PROMOTES A PLEASANT AND SOFT AMBIANCE, PROTECTS ASTRONOMICAL OBSERVATIONS, AND PROVIDES SAFETY AND SECURITY FOR PERSONS AND PROPERTY. EXCESSIVE LIGHT, OR LIGHT POLLUTION, CAN BE ANNOYING, CAUSE SAFETY PROBLEMS, REDUCE PRIVACY, AND WASTE ENERGY RESOURCES.

OUTDOOR LIGHTING HAS A NUMBER OF FUNCTIONS; IT MUST PROMISE IMMEDIATE GOOD VISION AND ORIENTATION SO THAT AN AREA IS USABLE AND SAFE AT NIGHT. BY MEANS OF PLACEMENT AND INTENSITY, LIGHTING IS ALSO USED TO GUIDE PEDESTRIAN AND VEHICULAR MOVEMENT AND HIGHLIGHT AREAS WHERE TRAFFIC CONFLICTS. LIGHTING IS ALSO USED FOR ARCHITECTURAL EMPHASIS AND EFFECT, TO ATTRACT BUSINESS, AND TO GIVE A SITE A PARTICULAR PERSONALITY.

IN ORDER TO EFFECTIVELY REGULATE THESE ACTIVITIES, COMMUNITIES ARE EMPOWERED TO ESTABLISH REGULATIONS AND STANDARDS FOR ALL OUTDOOR LIGHTING. THIS ORDINANCE CONTAINS STANDARDS AND GUIDELINES TO PRESERVE, PROTECT, AND ENHANCE THE NIGHT SKY IN THE TOWN.

THIS ORDINANCE, AND ANY REGULATIONS AND SPECIFICATION HEREAFTER ADOPTED, IS INITIATED FOR THE FOLLOWING PURPOSES:

- TO PROMOTE AND PROTECT THE PUBLIC HEALTH, SAFETY AND WELFARE
- TO PRESERVE, PROTECT, AND ENHANCE THE NATURAL BEAUTY OF THE NIGHT SKY
- TO ENCOURAGE AND PROMOTE THE CONSERVATIONS OF ENERGY RESOURCES.
- TO PROMOTE SAFETY AND SECURITY FOR PERSONS AND PROPERTY
- TO ELIMINATE LIGHT TRESPASS ONTO ABUTTING PROPERTIES
- TO ENHANCE COMMUNITY PERSONALITY
- **B. SCOPE:** ALL EXTERIOR LIGHTING INSTALLED AFTER THE EFFECTIVE DATE OF THIS ORDINANCE IN ANY AND ALL ZONING DISTRICTS IN THE TOWN SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS ESTABLISHED BY THIS ORDINANCE AND ANY OTHER APPLICABLE ORDINANCES.

ALL EXISTING LIGHTING INSTALLED ON COMMERCIAL AND INDUSTRIAL PROPERTIES PRIOR TO THE EFFECTIVE DATE OF THIS ORDINANCE SHALL BE CONSIDERED LEGAL NON-CONFORMING UNTIL SUCH TIME AS THE USE CHANGES OR IS ABANDONED. AT WHICH TIME THE PROPERTY SHALL LOSE ITS LEGAL NON-CONFORMING STATUS AND SHALL BE REQUIRED TO BE BROUGHT INTO COMPLIANCE WITH THIS SECTION OF THE ZONING ORDINANCE. EXISTING RESIDENTIAL PROPERTIES SHALL CONFORM TO THE REGULATIONS OF THIS ORDINANCE WITHIN ONE YEAR OF ADOPTION. ONLY LUMINAIRE WHICH COMPLIES WITH THIS ORDINANCE SHALL BE USED TO REPLACE AN EXISTING LUMINAIRE. THIS ORDINANCE DOES NOT APPLY TO INDOOR LIGHTING.

# 14-19-10-2 **DEFINITIONS**

- A. UNLESS SPECIFICALLY DEFINED BELOW, WORDS OR PHRASES USED IN THIS ORDINANCE SHALL BE INTERPRETED SO AS TO GIVE THEM THE MEANING THEY HAVE IN COMMON USAGE AND TO GIVE THIS SECTION IT'S MOST REASONABLE APPLICATION.
  - I. **AREA LIGHT** LIGHT THAT PRODUCES OVER 1800 LUMENS. AREA LIGHTS INCLUDE, BUT ARE NOT LIMITED TO, STREET LIGHTS, PARKING LOT LIGHTS AND YARD LIGHTS.
  - 2. **BALLAST** A DEVICE USED WITH A DISCHARGE LAMP TO OBTAIN THE NECESSARY VOLTAGE, CURRENT, AND/OR WAVE FORM FOR STARTING AND OPERATING THE LAMP.
  - 3. **BOLLARD** A POST-SHAPED LIGHT FIXTURE THAT IS USEFUL ALONG PATHWAYS, GARDEN BORDERS AND OTHER AREAS THAT REQUIRE DEFINITION AT NIGHT. THESE FIXTURES CAST LIGHT DOWNWARD IN A FULL 360-DEGREE PATTERN OR HAVE HALF LENSSES THAT CONFINE ILLUMINATION TO 180 DEGREES. BOLLARDS SHALL USE CUT-OFF OPTICS.
  - 4. **BULB** THE SOURCE OF ELECTRIC LIGHT. TO BE DISTINGUISHED FROM THE WHOLE ASSEMBLY (SEE LUMINAIRE).
  - 5. CANDELA (CD) UNIT OF LUMINOUS INTENSITY.
  - 6. **EXISTING LIGHTING** ANY AND ALL LIGHTING INSTALLED PRIOR TO THE EFFECTIVE DATE OF THIS ORDINANCE.
  - 7. **EXTERIOR LIGHTING** TEMPORARY OR PERMANENT LIGHTING THAT IS INSTALLED, LOCATED OR USED IN SUCH A MANNER TO CAUSE LIGHT RAYS TO SHINE OUTSIDE. FIXTURES THAT ARE INSTALLED INDOORS THAT ARE INTENDED TO LIGHT SOMETHING OUTSIDE ARE CONSIDERED EXTERIOR LIGHTING FOR THE INTENT OF THIS ORDINANCE.
  - 8. **FIXTURE** THE ASSEMBLY THAT HOLDS THE LAMP IN A LIGHTING SYSTEM. IT INCLUDES THE ELEMENTS DESIGNED TO GIVE LIGHT OUTPUT CONTROL, SUCH AS A REFLECTOR (MIRROR) OR REFRACTOR (LENS), THE BALLAST, HOUSING, AND THE ATTACHMENT PARTS.
  - 9. **FLOOD LIGHT** LIGHT THAT PRODUCES UP TO 1800 LUMENS (SEE ADDENDUM I FOR LIGHT OUTPUT OF VARIOUS LAMPS) AND IS DESIGNED TO "FLOOD" A WELL-DEFINED AREA WITH LIGHT. GENERALLY, FLOOD LIGHTS PRODUCE FROM 1000 TO 1800 LUMENS.
  - 10. FOOTCANDLE ILLUMINANCE PRODUCED ON A SURFACE ONE FOOT FROM A UNIFORM POINT SOURCE OF ONE CANDELA. MEASURED BY A LIGHT METER.
  - II. **FULL CUT-OFF FIXTURES** FIXTURES, AS INSTALLED, THAT ARE DESIGNED OR SHIELDED IN SUCH A MANNER THAT ALL LIGHT RAYS EMITTED BY THE FIXTURE, EITHER DIRECTLY FROM THE LAMPS OR INDIRECTLY FROM THE FIXTURE, ARE PROJECTED BELOW A HORIZONTAL PLANE RUNNING THROUGH THE LOWEST POINT ON THE FIXTURE WHERE LIGHT IS EMITTED.
  - 12. **GLARE** INTENSE LIGHT THAT RESULTS IN DISCOMFORT AND/OR A REDUCTION OF VISUAL PERFORMANCE AND VISIBILITY.
  - HOLIDAY LIGHTING FESTOON TYPE LIGHTS, LIMITED TO SMALL INDIVIDUAL BULBS ON A STRING.
  - 14. **IESNA ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IES OR IESNA) -** THE PROFESSIONAL SOCIETY OF LIGHTING ENGINEERS, INCLUDING THOSE

- FROM MANUFACTURING COMPANIES, AND OTHERS PROFESSIONALLY INVOLVED IN LIGHTING.
- 15. **ILLUMINANCE** DENSITY OF LUMINOUS FLUX INCIDENT ON A SURFACE. UNIT IS FOOTCANDLE OR LUX.
- 16. **LAMP** THE SOURCE OF ELECTRIC LIGHT: THE BULB AND ITS HOUSING. TO BE DISTINGUISHED FROM THE WHOLE ASSEMBLY (SEE LUMINAIRE).
- 17. **LIGHT** THE FORM OF RADIANT ENERGY ACTING ON THE RETINA OF THE EYE TO MAKE SIGHT POSSIBLE; BRIGHTNESS; ILLUMINATION; A LAMP, AS DEFINED ABOVE.
- 18. **LIGHT POLLUTION** ANY ADVERSE EFFECT OF MANMADE LIGHT INCLUDING, BUT NOT LIMITED TO, LIGHT TRESPASS, UPLIGHTING, THE UNCOMFORTABLE DISTRACTION TO THE EYE, OR ANY MANMADE LIGHT THAT DIMINISHES THE ABILITY TO VIEW THE NIGHT SKY. OFTEN USED TO DENOTE URBAN SKY GLOW.
- 19. LIGHT TRESPASS LIGHT FALLING WHERE IT IS NOT WANTED OR NEEDED, GENERALLY CAUSED BY A LIGHT ON A PROPERTY THAT SHINES ONTO THE PROPERTY OF OTHERS.
- 20. **LIGHTING** ANY OR ALL PARTS OF A LUMINAIRE THAT FUNCTION TO PRODUCE LIGHT.
- 21. **LUMEN -** UNIT OF LUMINOUS FLUX; THE FLUX EMITTED WITHIN A UNIT SOLID ANGLE BY A POINT SOURCE WITH A UNIFORM LUMINOUS INTENSITY OF ONE CANDELA. ONE FOOT-CANDLE IS ONE LUMEN PER SQUARE FOOT. ONE LUX IS ONE LUMEN PER SQUARE METER
- 22. **LUMINAIRE** THE COMPLETE LIGHTING UNIT, INCLUDING THE LAMP, THE FIXTURE, AND OTHER PARTS. 23. **PARTIALLY SHIELDED** THE BULB OF THE FIXTURE IS SHIELDED BY A TRANSLUCENT SIDING AND THE BULB IS NOT VISIBLE AT ALL. LIGHT MAY BE EMITTED AT THE HORIZONTAL LEVEL OF THE BULB.
- 23. **RECESSED** WHEN A LIGHT IS BUILT INTO A STRUCTURE OR PORTION OF A STRUCTURE SUCH THAT THE LIGHT IS FULLY CUT-OFF AND NO PART OF THE LIGHT EXTENDS OR PROTRUDES BEYOND THE UNDERSIDE OF A STRUCTURE OR PORTION OF A STRUCTURE.
- 24. **SHIELDED** WHEN THE LIGHT EMITTED FROM THE FIXTURE IS PROJECTED BELOW A HORIZONTAL PLANE RUNNING THROUGH THE LOWEST POINT OF THE FIXTURE WHERE LIGHT IS EMITTED. THE BULB IS NOT VISIBLE WITH A SHIELDED LIGHT FIXTURE, AND NO LIGHT IS EMITTED FROM THE SIDES OF THE FIXTURE.
- 25. **TEMPORARY LIGHTING** MEANS LIGHTING THAT IS INTENDED TO BE USED FOR A SPECIAL EVENT FOR SEVEN (7) DAYS OR LESS.
- 26. **UPLIGHTING** LIGHTING THAT IS DIRECTED IN SUCH A MANNER AS TO SHINE LIGHT RAYS ABOVE THE HORIZONTAL PLANE.

## 14-19-10-3 GENERAL REGULATIONS

THE TOWN COUNCIL, PLANNING COMMISSION, THE BUILDING OFFICIAL AND/OR THE ZONING ADMINISTRATOR SHALL HAVE THE AUTHORITY TO REQUIRE NEW, RETROFITTED OR ADJUSTED LIGHTING IF NEEDED, TO MEET THE RECOMMENDATIONS AND GUIDELINES OF THIS ORDINANCE.

**A.** ALL APPLICATIONS FOR DEVELOPMENT REVIEW, CONDITIONAL USE, SUBDIVISION AND/OR BUILDING PERMITS SHALL INCLUDE LIGHTING PLANS SHOWING LOCATION, TYPE, HEIGHT, AND LUMEN OUTPUT OF ALL PROPOSED AND EXISTING FIXTURES.

THE APPLICANT SHALL PROVIDE ENOUGH INFORMATION TO VERIFY THAT LIGHTING CONFORMS TO THE PROVISIONS OF THIS ORDINANCE. THE ZONING ADMINISTRATOR, COMMISSION, TOWN COUNCIL AND/OR BUILDING OFFICIAL SHALL HAVE THE AUTHORITY TO REQUEST ADDITIONAL INFORMATION IN ORDER TO ACHIEVE THE PURPOSES OF THIS ORDINANCE.

**B.** ALL EXTERIOR LIGHTING SHALL BE, AT A MINIMUM 90-DEGREE CUT-OFF FIXTURES WITH THE LIGHT SOURCE FULLY SHIELDED, WITH THE FOLLOWING EXCEPTIONS:

- I. LUMINAIRES THAT HAVE A MAXIMUM OUTPUT OF 250 LUMENS PER FIXTURE, REGARDLESS OF NUMBER OF BULBS, (EQUAL TO ONE 20 WATT INCANDESCENT LIGHT), MAY BE LEFT UNSHIELDED PROVIDED THE FIXTURE HAS AN OPAQUE TOP TO KEEP LIGHT FROM SHINING DIRECTLY UP.
- LUMINAIRES THAT HAVE A MAXIMUM OUTPUT OF 1,000 LUMENS PER FIXTURE, REGARDLESS OF NUMBER OF BULBS, (EQUAL TO ONE 60 WATT INCANDESCENT LIGHT) MAY BE PARTIALLY SHIELDED, PROVIDED THE BULB IS NOT VISIBLE, AND THE FIXTURE HAS AN OPAQUE TOP TO KEEP LIGHT FROM SHINING DIRECTLY UP.
- 3. FLOOD LIGHTS WITH EXTERNAL SHIELDING MAY BE ANGLED PROVIDED THAT THE LIGHT DOES NOT CAUSE GLARE OR LIGHT TO SHINE ON ADJACENT PROPERTY OR PUBLIC RIGHTS-OF-WAY. FLOODLIGHTS WITH EXTERNAL OR INTEGRAL SHIELDING SHALL BE ANGLED TO ELIMINATE LIGHT TRESPASS.
- 4. HOLIDAY LIGHTS AS DEFINED IN SECTION 14-19-10-2(13) ARE <u>EXEMPT</u> FROM THE REQUIREMENTS OF THIS ORDINANCE.
- 5. SENSOR ACTIVATED LIGHTING MAY BE UNSHIELDED PROVIDED IT IS LOCATED IN SUCH A MANNER AS TO PREVENT DIRECT GLARE AND LIGHTING INTO PROPERTIES OF OTHERS OR INTO A PUBLIC RIGHT-OF-WAY, AND PROVIDED THE LIGHT IS SET TO ONLY GO ON WHEN ACTIVATED AND TO GO OFF WITHIN FIVE MINUTES AFTER ACTIVATION HAS CEASED, AND THE LIGHT SHALL NOT BE TRIGGERED BY ACTIVITY OFF THE PROPERTY.
- SPORTS LIGHTING SHALL BE TURNED OFF BY 11:00 P.M., EXCEPT TO CONCLUDE A SPECIFIC SPORTING EVENT THAT IS UNDERWAY.
- 7. VEHICULAR LIGHTS AND ALL TEMPORARY EMERGENCY LIGHTING NEEDED BY THE FIRE AND POLICE DEPARTMENTS, OR OTHER EMERGENCY SERVICES SHALL BE EXEMPT FROM THE REQUIREMENTS OF THIS ORDINANCE.
- C. LIGHT TRESPASS IT IS THE INTENT OF THIS ORDINANCE TO ELIMINATE AND PREVENT LIGHT TRESPASS THROUGH THE PROPER INSTALLATION OF LIGHTING FIXTURES. ALL NEW EXTERIOR LIGHTING SHALL PROTECT BOTH ADJACENT PROPERTIES AND RIGHT-OF-WAY FROM GLARE AND EXCESSIVE LIGHTING BY ELIMINATING LIGHT TRESPASS.
- D. AREA LIGHTS ALL AREA LIGHTS, INCLUDING STREET LIGHTS AND PARKING AREA LIGHTING, SHALL BE FULL CUT-OFF FIXTURES AND SHALL BE NINETY (90) DEGREE OR LESS CUT-OFF TYPE FIXTURES.
  - I. STREET LIGHTS SHALL BE HIGH PRESSURE SODIUM, LOW PRESSURE SODIUM, OR METAL HALIDE, UNLESS OTHERWISE DETERMINED BY THE ZONING ADMINISTRATOR THAT ANOTHER TYPE IS MORE EFFICIENT.
  - 2. STREET LIGHTS ALONG RESIDENTIAL STREETS SHALL BE LIMITED TO A 70 WATT HIGH PRESSURE SODIUM (HPS) LIGHT.
- E. UPLIGHTING UPLIGHTING IS PROHIBITED IN ALL ZONING DISTRICTS, EXCEPT IN CASES WHERE THE FIXTURE IS SHIELDED BY A ROOF OVERHANG OR SIMILAR STRUCTURAL SHIELD FROM THE SKY SO AS TO PREVENT LIGHT SPILL ABOVE THE HORIZONTAL LEVEL.
- F. LANDSCAPE LIGHTING THE PRIMARY FUNCITON OF LANDSCAPE LIGHTIN IS TO PROVIDE ILLUMINATION FOR PATHWAYS, STEPS, AND ENTRANCES TO BUILDING.

I. PATHWAY LIGHTING- THE INTENT OF PATHWAY LIGHTS IS TO PROVIDE POOLS OF LIGHT TO HELP DIRECT PEDESTRIANS ALONG THE PATH, NOT TO FULLY ILLUMIANTE THE PATH. STEPS AND PATH INTERSECTIONS SHOULD BE ILLUMINATED FOR SAFETY. THE MAXIMUM FOOT-CANDLE PERMITTED ON THE GROUND IS ONE (I) HORIZONTAL FOOT-CANDLE OR LESS. BOLLARDS OR SOLAR POWERED GROUND LIGHTS ARE ACCEPTABLE

- 2. HIGHLIGHTING, BACKLIGHTING- ONLY LOW VOLTAGE SYSTEMS ARE PERMITTED. LIGHTS MUST BE PARTIALLY SHIELDED AND LIGHT MUST NOT BE DIRECTED OFF THE PROPERTY BEING LIGHTED.
- **G. LIGHTING OF FLAGS-** THE U.S. CODE STATES THAT:

"IT IS THE UNIVERSAL CUSTOM TO DISPLAY THE FLAG ONLY FROM SUNRISE TO SUNSET ON BUILDINGS AND ON STATIONARY FLAGSTAFFS IN THE OPEN. HOWEVER, WHEN A PATRIOTIC EFFECT IS DESIRED, THE FLAG MAY BE DISPLAYED 24 HOURS A DAY IF PROPERTY ILLUMINATED DURING THE HOURS OF DARKNESS"

THE LIGHTING OF FEDERAL OR STATE FLAGS SHALL BE PERMITTED PROVIDED THAT THE LIGHT IS A NARROW BEAM SPOTLIGHT RATHER THAN A FLOODLIGHT, CAREFULLY AIMED TO AVOID CREATING A SOURCE OF GLARE.

- H. CANOPY LIGHTS ALL LIGHTING SHALL BE RECESSED SUFFICIENTLY SO AS TO ENSURE THAT NO LIGHT SOURCE IS VISIBLE FROM OR CAUSES GLARE ON PUBLIC RIGHTS-OF-WAY OR ADJACENT PROPERTY.
- I. TOWERS ALL RADIO, COMMUNICATION, AND NAVIGATION TOWERS THAT REQUIRE LIGHTS SHALL HAVE DUAL LIGHTING CAPABILITIES. FOR DAYTIME, THE WHITE STROBE LIGHT MAY BE USED, AND FOR NIGHTTIME, ONLY RED LIGHTS SHALL BE USED.
- J. TEMPORARY LIGHTING TEMPORARY LIGHTING THAT CONFORMS TO THE REQUIREMENTS OF THIS ORDINANCE SHALL BE ALLOWED. NONCONFORMING TEMPORARY EXTERIOR LIGHTING MAY BE PERMITTED BY THE ZONING ADMINISTRATOR ONLY AFTER CONSIDERING
  - I. THE PUBLIC AND/OR PRIVATE BENEFITS WHICH WILL RESULT FROM THE TEMPORARY LIGHTING;
  - 2. ANY ANNOYANCE OR SAFETY PROBLEMS THAT MAY RESULT FROM THE USE OF THE TEMPORARY LIGHTING; AND,
  - 3. THE DURATION OF THE TEMPORARY NONCONFORMING LIGHTING. THE APPLICANT SHALL SUBMIT A DETAILED DESCRIPTION OF THE PROPOSED TEMPORARY NONCONFORMING LIGHTING TO THE ZONING ADMINISTRATOR.

THE ADMINISTRATOR SHALL PROVIDE WRITTEN NOTICE OF SAID REQUEST TO OWNERS OF PROPERTY IMMEDIATELY ADJACENT TO THE SUBJECT PROPERTY. SAID NOTICE SHALL INFORM ADJACENT PROPERTY OWNERS THEY MAY COMMENT ON THE REQUEST DURING A PERIOD OF NOT LESS THAN TEN (10) DAYS AFTER MAILING OF THE NOTICE AND PRIOR TO FINAL ACTION ON SAID REQUEST.

**K. NEON LIGHTS** - NEON LIGHTS ARE ONLY PERMITTED PURSUANT TO THE SIGN ORDINANCE, SECTION 14-18 OF THE ZONING ORDINANCE.