## Planning Board Draft 02.18.22

# § 8.11 DARK SKY PROTECTION

### **8.11.1 PURPOSE**:

The purpose of this Section 8.11 is to: (i) protect the rural character of the Town; (ii) protect the natural beauty of a dark sky, in which stars, planets and constellations can be viewed unimpeded from the encroachment of glare, excessive lighting, and light pollution (iii) promote the of use of advanced lighting technology; and (iv) balance the needs of economic development, human and animal safety and the Town's natural character through the regulation of Outdoor Lighting in new construction and changes of use.

### **8.11.2 DEFINITIONS** (for the purposes of this Section 13 only):

"Adaptive Controls" means mechanical or electronic devices, when used in the context of Outdoor Lighting systems, intended to actively regulate the switching, duration, and/or intensity of light emitted by such systems. Examples of adaptive controls include timers, dimmers, and motion-sensing switches.

"Applicant" means the person or entity that applies for the issuance of any permit.

"Application" means a written application for the issuance of any permit.

"Electronic display" means any illuminated sign of an informative or advertising nature, whether on or off-premises, and operable at night, whose content is made visible to the viewer by means of luminous elements under active electronic control and therefore subject to alteration in order to vary the content of the message. Electronic displays may be either static or dynamic in terms of light color and intensity.

"Fully Shielded" means an outdoor Luminaire constructed so that in its installed position all the light emitted by the Luminaire is projected below the horizontal plane passing through the lowest light-emitting part of the Luminaire. Figure 1 shows the correct configuration of a Fully Shielded Luminaire, indicating the ninety (90) degree angle between the horizontal plane passing through the lowest light emitting part of the Luminaire and the nadir, defined as the local vertical pointing toward the center of the earth.

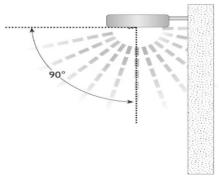


Figure 1

- "International Dark-Sky Association" means the non-profit organization headquartered at 3223 North First Avenue, Tucson, Arizona, whose mission is to reduce light pollution through the promotion of recognized best practices in Outdoor Lighting design, installation, and operation.
- "Lamp" means the bulb or other light-emitting portion of a Luminaire, not inclusive of any reflective or refractive optics used to direct light.
- "Light pollution" means any unintended, adverse and/or obtrusive effect of the use of outdoor light at night.
- "Luminaire" means a complete lighting assembly, consisting of a Lamp, housing, optic(s), and other structural elements, but not including any mounting pole or surface.
- "Outdoor Lighting" means temporary or permanent lighting that is installed, located, or used in such a manner as to cause light rays to shine outdoors.
- "Outdoor Sports Lighting" means lighting equipment designed and installed specifically to illuminate outdoor fields used for the practice and play of any outdoor sport or similar recreation activity. This term refers only to lighting directed toward, and intended to facilitate, play or recreation on outdoor surfaces, or to illuminate spectator viewing stands, but not for illumination of any other part of a connected or adjacent property.
- **"Public Lighting"** means Outdoor Lighting equipment owned, operated, and/or maintained or leased by the Town and that is situated either on Town-owned property or in a public right of way. This term is inclusive of street lighting when owned or leased by the Town.
- "Searchlight" means any high-intensity light source whose emission pattern is confined to a narrow beam and whose intended purpose is to draw attention to the locations at which products or services are sold. Sometimes referred to as a "sky beam."
- "Special Permit Granting Authority" means the Select Board of the Town.
- "Town" means the town of New Marlborough, MA.

#### 8.11.3 APPLICABILITY

- **8.11.3.1** General applicability. All Outdoor Lighting Luminaires installed after the effective date of this bylaw, in all zoning districts in the Town, shall be in conformance with the requirements established by this bylaw and any other applicable bylaws, codes or regulations of the Town.
- **8.11.3.2** New Construction. The provisions of this bylaw shall apply to all new construction of real property for which a building permit is required.
- **8.11.3.3** Renovation. The provisions of this bylaw shall apply to the renovation of an existing building or structure for which a building permit is required; provided however, that compliance with this bylaw is required only with respect to the renovated portion of the existing building or structure. To the extent, however, that the renovation of an existing building or structure equals or

exceeds twenty-five (25) percent of the property's assessed value, then all the Outside Lighting Luminaries on the property must be brought into conformance with this bylaw.

- 8.11.3.4 Legal non-conforming Luminaires. All commercial and residential Outdoor Lighting Luminaires that were lawfully installed prior to the effective date of this bylaw, but that do not comply with the requirements of this bylaw are declared to be legal non-conforming Luminaires. All legal non-conforming Luminaires may continue to be used and maintained after the adoption of this bylaw and any related codes or regulations, but shall be brought into compliance with its requirements upon the first to occur of any of the following:
  - **8.11.3.4.1** A change of use of a property, or any other modification requiring a special permit.
  - **8.11.3.4.2** A determination by the Select Board that the legal non-conforming Luminaire constitutes a public hazard or a nuisance.
  - **8.11.3.4.3** The replacement of any legal non-conforming Luminaire with new lighting equipment, not inclusive of Lamps or similar consumable parts; or
  - 8.11.3.4.4 Conformity shall occur prior to issuance of a certificate of occupancy, final inspection, or final plat recordation, when applicable. For other permits, the applicant shall have a maximum of sixty (60) days from the date of permit issuance to bring the lighting into conformance.
- **8.11.3.5** Intention. The intention of this bylaw is to encourage, but not require, that legal non-conforming Luminaires not otherwise affected by this bylaw be made compliant with this bylaw within five (5) years after the effective date of this bylaw.

### 8.11.4 MAIN PROVISIONS

**8.11.4.1** Shielding. All Outdoor Lighting Luminaires installed after the effective date of this bylaw shall be Fully Shielded:

See Figure 2 for examples of shielded and unshielded Luminaires.

## Figure 2

- **8.11.4.2** Spectrum management. The color temperature of Lamps in all Outdoor Lighting Luminaires shall not exceed 2,700 Kelvins.
- **8.11.4.3** Top-down lighting. Externally illuminated signs shall be lit only from the top of the sign with Fully Shielded Luminaires designed and installed to prevent light from spilling beyond the physical edges of the sign.
- **8.11.4.4** General curfew for commercial uses. All Outdoor Lighting shall be extinguished by 11:00 pm or within one (1) hour of the close of normal

business hours, or at the conclusion of usual operations, whichever occurs later.

- **8.11.4.5** Outdoor Sports Lighting. Outdoor Sports Lighting shall be permitted and exempted from this bylaw and related codes and regulations if its design and installation adheres to the version of the International Dark-Sky Association's Criteria for Community Friendly Outdoor Sports Lighting operative at the time when the construction permit is submitted to the Town for review.
- **8.11.4.6** Displays of the United States flag. Flagpoles displaying the United States flag are exempt from this bylaw, provided that the sole objective of the illumination is the United States flag. Wherever possible, illumination shall be from above the flag pointing downward.
- **8.11.4.7** Other restrictions. The use of the following types of Outdoor Lighting are prohibited unless specifically approved by special permit by the Special Permit Granting Authority:
  - **8.11.4.7.1** Searchlights, sky beams, and similar lighting, except as required by response personnel during emergency conditions.
  - **8.11.4.7.2** Lasers.
  - **8.11.4.7.3** Electronic displays.
  - **8.11.4.7.4** Any light that dynamically varies its output by intermittently fading, flashing, blinking, or rotating. This type of lighting includes strobe lighting.
  - 8.11.4.7.5 Any Luminaire that uses mercury vapor Lamps. Further, any Luminaire that uses mercury vapor Lamps is not grandfathered by this bylaw and must be Fully Shielded within five (5) years of the effective date of this bylaw.

## 8.11.5 PUBLIC LIGHTING

- 8.11.5.1 New installations. New installations of Outdoor Lighting on public properties and rights of way may be installed only upon determination by the Select Board that a public safety hazard exists in the area to be lit, and that the hazard can only be effectively mitigated through the use of Outdoor Lighting and not through some other passive means, such as reflectorized roadway paint or markers.
- **8.11.5.2** Adaptive Controls. All new installations of Outdoor Lighting on public properties and rights of way must be regulated with Adaptive Controls such that the lighting of areas is restricted to times, places and amounts required for safe occupancy.
- **8.11.5.3** Curfew. All Outdoor Lighting on public properties and rights of way not adaptively controlled must be fully extinguished by 11:00 pm, or within one hour of the end of occupancy of the structure or area to be lit, whichever is later.

- **8.11.5.4** Compliance. All new installations of Outdoor Lighting on public properties and rights of way must comply with this bylaw.
- **8.11.5.5** Adoption. Existing Outdoor Lighting on public properties and rights of way must be modified to comply with this bylaw within one (1) year of the effective date of this bylaw.

#### 8.11.6 ENFORCEMENT

- **8.11.6.1** Administrative guidance. The Select Board is authorized to promulgate one or more interpretive documents to aid in the administration of, and compliance with, this bylaw.
- **8.11.6.2** Violations. It shall be unlawful to install or operate any Outdoor Lighting Luminaire in violation of any provision of this bylaw. Any person violating any provision of this bylaw shall be guilty of a misdemeanor. Each day during which the illegal erection, maintenance and use of such non-conforming Outdoor Lighting continues shall constitute a separate offense.
- **8.11.6.3** Primary relief. The Town shall also have the right to bring a civil action to enforce the provisions of this bylaw and to seek remedies as allowed by law, including, but not limited to injunctive relief, monetary damages; or other relief as directed by a court with jurisdiction over the matter.
- **8.11.6.4** Alternative relief.
  - 8.11.6.4.1 Civil penalties. In lieu of criminal prosecution, a civil penalty up to \$100 per day may be assessed by the Town when it is demonstrated that a property owner was actually notified of the provisions of this bylaw and committed acts in violation of this bylaw or failed to take action necessary for compliance with this bylaw; and other available relief.
  - **8.11.6.4.2**. Stop work orders. In the event work is not being performed in accordance with this bylaw, the Town may issue a stop work order and all work shall immediately cease on the entire project for which a permit is issued. No further work shall be undertaken on the project if a stop work order is in effect.