

## 6. LIGHTING STANDARDS

### GENERAL REQUIREMENTS

Lighting for Eagle River Station shall adhere to the Town of Eagle Development Standards Section 4.07.005 with the exception of the following four items and items noted below for each specific planning area.

1. **Lamp Shielding:** All lighting shall be full cut off fixtures as defined by the Illuminating Engineering Society of North America (IESNA) or TM-15-07 (BUG rating). Refer to Model Lighting Ordinance guide dated June 15, 2011 for complete descriptions.
2. **Lighting for Facades and Signs:** shall meet the Town of Eagle Development Standards or be consistent with LEED guidelines (3500 lumen output per fixture maximum) whichever is more restrictive.
3. **Private Street Lighting:** for safety and security, dusk-to-dawn lighting on private roadway shall be provided. Lighting level shall be approved by the Town Engineer.
4. Meet the light pollution requirements at the property line required by LEED Light Pollution Reduction requirements for zone LZ2, Moderate ambient lighting. Refer to Model Lighting Ordinance guide dated June 15, 2011 for complete descriptions.



fig. 5.11.1



fig. 5.11.2

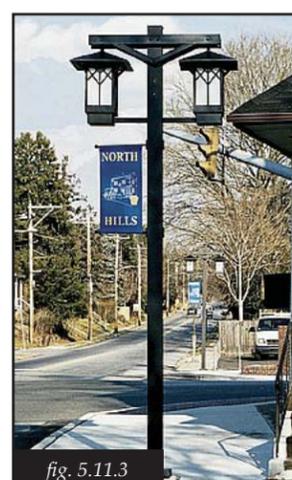


fig. 5.11.3

Parking lot and pedestrian lighting shall be provided by high quality, full cut of-off fixtures (see figures 5.11.4 and 5.11.5). Metal halide fluorescent, or LED fixtures are acceptable. Pedestrian areas of the project shall have lower scale, more detailed fixtures as a visual cue for pedestrians. Examples are shown in figure 5.11.1, 5.11.2 and 5.11.3, or a similar style to match the architectural theme of the project.

Pedestrian poles shall be limited to 14 ft. in overall height. Parking lot pole lighting shall be limited to 25 ft. height at perimeters and 30 ft. on the interior of the parking area.

#### Street Lighting

Light fixtures along the Chambers Avenue shall meet the Town of Eagle's Land Use Code and be submitted for approval by the Town Engineer.

#### Façade Lighting

Façade lighting applications are allowed in all Planning Areas. Lighting type may be down lighting, up lighting or a combination of the two. In both cases the light source shall be fully shielded from pedestrians, motorists and should not be visible from inside the lighted building or from surrounding buildings.

Façade lighting shall only be used to highlight specific architectural features such as entries, towers or other landmark features on the building. The lighting shall be focused on the feature and shall fall completely on the façade.

#### Security Lighting

All building mounted security lighting shall utilize motion detectors and be full cut off fixtures or have a BUG rating. Fixtures shall be limited to a maximum of 6200 lumens per luminaire and be either Compact fluorescent, LED or metal halide lamping.

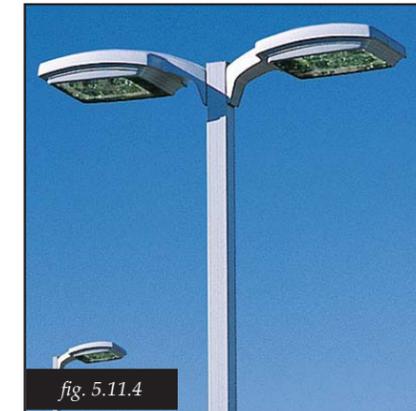


fig. 5.11.4

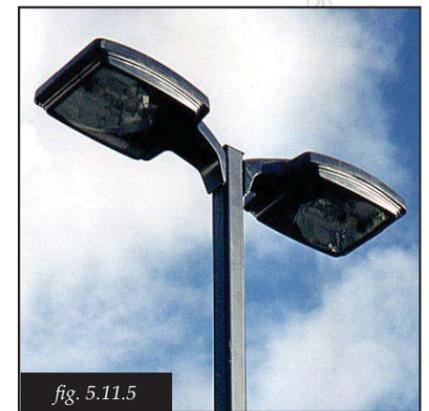


fig. 5.11.5

#### Landscape Lighting

Up lighting can be used to highlight specific landscape features such as trees. Consideration should be taken to limit illumination so 90% of the up light is contained within the feature. All fixtures should have glare control and time clock function. Approval will be on a case by case use basis reviewed through the Development Permit process.

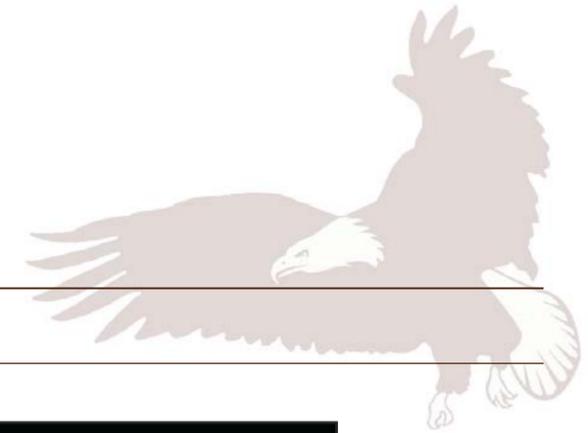
#### Misc Requirements

Flag, and building façade lighting shall be accomplished with either full cut-off down-lighting or up-lighting floodlights with barn-door adjustable shields to control light spill. Fixtures shall utilize either fluorescent, LED, or metal halide lamps. Lumen output per fixture shall be limited to 3,500 lumens maximum so as to be consistent with LEED guidelines.

All exterior light fixtures shall include controls to ensure that lights will not be 'on' when sufficient daylight is present.

Holiday lighting at ERS shall be allowed per the Town of Eagle Codes. Holiday lighting shall use lamps with a warm color temperature, cool temperature white LED holiday lighting shall not be allowed.

Festoon, Tivoli or string lighting is allowed in all Planning Areas and will be reviewed as part of the Development Permit Review.



## 6. LIGHTING STANDARDS CONTINUED

A photometric report shall include all fixtures calculated using a point by point spacing of 10 ft. by 10 ft. grid. Footcandle measurements shall be calculated at 30 inches horizontally. A calculation grid shall include area 10 ft. past site boundary. Summary shall include Average illumination, Max. to Min. Uniformity Ratio and detailed description of luminaries used. The photometric report shall be provided as part of building permit applications or final construction drawings.

### Higher Light Level Areas

Specific areas within the Planning areas can have higher light levels to allow for higher pedestrian interactions. These areas shall be identified as to its function on the site plan and photometric report. Rationale for additional light levels requested should be included in the Development Permit Application. Further explanation may be required and provided to the Town Planner and Town Engineer for review.

Higher lighting levels is defined as an additional 25% based on the total lumens being used within a specific definable site area.

## SPECIFIC REQUIREMENTS FOR EACH PLANNING AREA

### Mixed Use (MU) Planning Area

The MU Planning Area is a second phase of development, Lighting standards for this planning area will be prepared and submitted for review by the town as an addendum to this PUD Guide and PUD Development Plan at a subsequent stage in the development review process. Lighting standards will be consistent with the General Requirements and with the overall design approach and level of quality established in the design guidelines specific to the CR and MUL Planning Areas.

### Multi-Use Lifestyle (MUL) Planning Area

Mixed Use Lifestyle planning area shall use the standards for Central Business District in the Town of Eagle Development Lighting Standards Section 4.07.005 except for the following criteria:

Lamp Watt age: 250 watt maximum. (Based on metal halide lamping)

Average Illumination: 2.0 FC

Uniformity Ratio: (Max to Min): 15:1

Hours of operation/control: Lights shall turn on at dusk and be maintained at full brightness until on-half hour after store closing. At that time, 75% of the lights will turn off. The remaining 25% of the lights will be located so they provide lighting of employee parking areas and the walking path to the employee parking areas. These lights will turn off one and one-half hour after store closing.

Lighting for residential uses in the MUL planning area shall have dusk to dawn operation for resident safety.

Pedestrian poles shall be limited to 14 ft. in overall height. Parking lot pole lighting shall be limited to 25 ft. height at perimeters and 30 ft. on the interior of the parking area for MUL Planning area.

Lighting for secondary roadways shall have dusk to dawn operation for resident safety.

### Commercial Retail (CR) Planning Area

Commercial Retail Planning area shall use the standards for Central Business District in the Town of Eagle Development Lighting Standards Section 4.07.005 except for the following criteria:



**PARKING AREAS SHALL BE SECTIONED INTO THREE LIGHTING ZONES, PRIMARILY FOR SECURITY AND INCREASED LIGHTING** (refer to lighting zone plan).

### Inner Parking Area A:

Lamp Watt age: 400 watt maximum. (Based on metal halide lamping)

Average Illumination: 3.0 FC

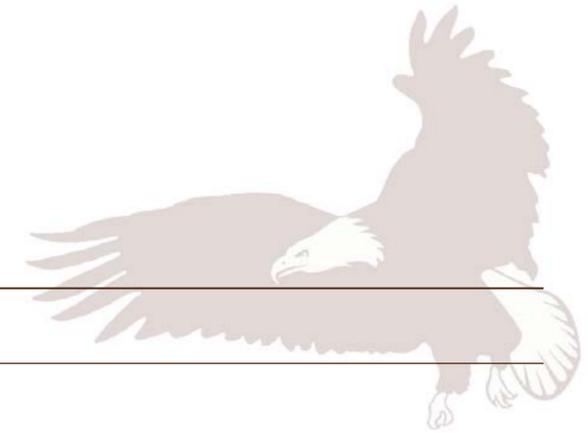
Uniformity Ratio: (Max to Min): 10:1

### Perimeter / Outlying Parking Area B:

Lamp Watt age: 250 watt maximum. (Based on metal halide lamping)

Average Illumination: 2.0 FC

Uniformity Ratio: (Max to Min): 15:1



## 6. LIGHTING STANDARDS CONTINUED

### Storefront Areas:

Lamp Watt age: 400 watt maximum. (Based on metal halide lamping)

Average illumination: 5 FC

Uniformity Ratio: (Max to Min): 15:1

This requirement shall apply to the area starting at the store façade, extending through the sidewalk and drive aisle at the front of the store and through the first two parking spaces directly adjacent to the drive aisle.

Lighting for secondary roadways shall have dusk to dawn operation for resident safety.

Hours of operation/control for general parking field and storefront areas:

Lights shall turn on at dusk and be maintained at full brightness until one-half hour after store closing. At that time, 75% of the lights will turn off. The remaining 25% of the lights will be located so they provide lighting of employee parking areas and the walking path to the employee parking areas. These lights will turn off one and one-half hour after store closing.

Parking lot light poles shall be a maximum of 25' at perimeter and 30' high within the interior of the lot in the CR Planning Area. In areas where pedestrians and vehicles interact, it is recommended to include the use of pedestrian poles.

