ALPINE LIGHTING PLAN SUBMISSION CHECKLIST

Select Key Requirements – Read the Entire Ordinance Before Creating Your Lighting Plan

(1) All outdoor lighting shall be fully shielded.

(2) No luminaire shall create conditions of light trespass. The light source (the bulb or a light-colored lens shall not be visible from any other property. Mounting height or proximity to property lines may cause you to need added shielding.

(2) Light is measured in lumens. Commercial properties are allowed 100,000 lumens per net acre (about 2.2957 lumens/sq ft.) and residential properties are allowed 25,000 lumens per net acre (about 0.57392 lumens/sq. ft) in any contiguous illuminated area.

(3) Outdoor lighting includes light fixtures installed indoors behind see-through material that allows the light source to be seen from any other property.

Items to include in Lighting Plan for all Outdoor Lighting:

_____ (1) The location and height of all existing and proposed light fixtures. Data for existing fixtures may be estimated but the source of the numbers assigned must be documented.

_____ (2) Manufacturer's specification sheets for each fixture included in the plan. The specific configuration and any options to be ordered should be indicated on the spec sheet. If specification sheets cannot be located for an existing fixture, then submit daylight photographs of it and nighttime photographs showing the area the fixture illuminates.

_____ (3) Building elevations with notes where light fixtures are to be installed indoors which may be seen from the exterior.

_____ (4) Site plan with specific measurements in feet for the area to be illuminated. A scale notation is not sufficient.

_____ (5) A completed Lumen Calculation Workbook (Excel format) to determine net lumens per square foot. It must include:

_____ (A) The light fixture catalog descriptions including lamp type

_____ (B) The Kelvin rating for the selected lamp

_____ (C) The mounting height for the fixture

_____ (D) The number of fixtures / lamps (use the same unit corresponding to the unit used to determine how many lumens are produced)

_____ (F) The initial lumens for each entire fixture

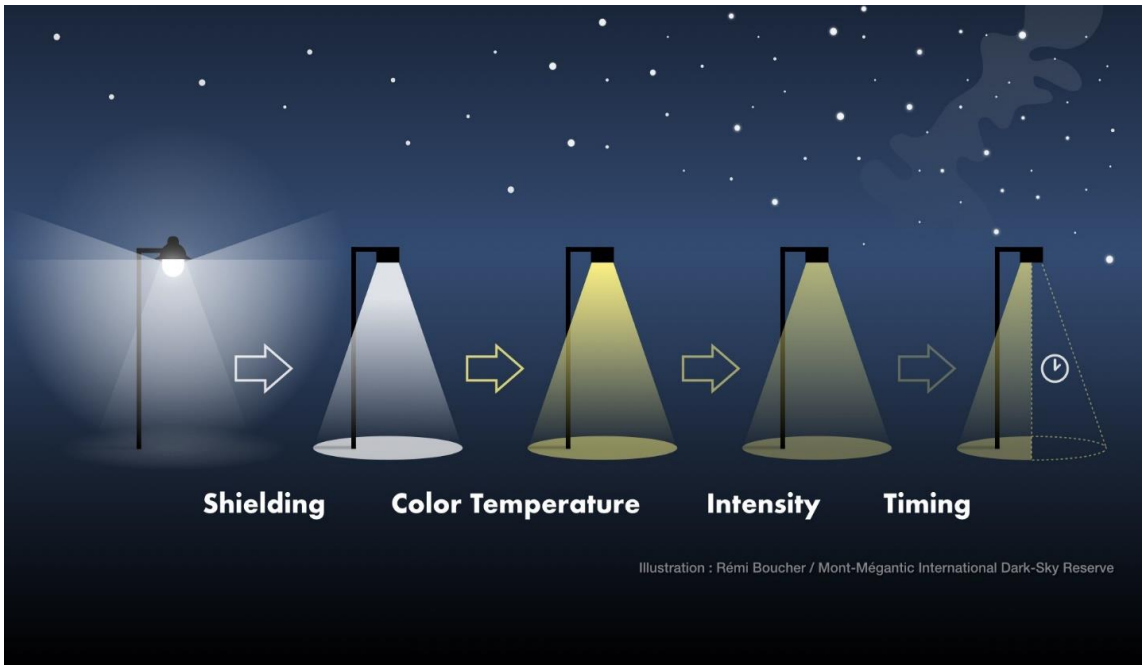
_____ (H) The LLF or efficiency for the calculation of Luminaire Lumens (Use 0.95 for LEDs and 0.80 for other types of lamps unless a different percentage is documented in manufacturer's data).

_____ (I) The total square footage of the area to be illuminated.

FIGURES AND ILLUSTRATIONS

FIGURE A:

An illustration of best outdoor lighting practices.



(1) Use shielding to reclaim wasted light and direct it to the area to be lit.

(2) Lower the correlated color temperature (CCT) from “cool” white light to “warm” white.

(3) Lower the intensity to provide as much light as needed for the application, but no more.

(4) Use adaptive controls, e.g., timers, half-night photocells, motion sensors, etc., to limit the hours the light is in use.

FIGURE B:


Unacceptable / Do Not Use
Fixtures that produce glare and light trespass
shield too small
ineffective
Unshielded Floodlights
or Poorly-shielded Floodlights
Unshielded Wallpacks
& Unshielded or
Poorly-shielded Wall
Mount Fixtures
shield
ineffective
exposed
polished
reflector
Drop-Lens & Sag-Lens Fixtures
w/ exposed bulb / refractor lens
Unshielded Bollards
Unshielded Streetlight
Unshielded Barn
Light
Louvered
'Marine' style
Fixtures
Unshielded
'Period' Style
Fixtures
Unshielded PAR
Floodlights
Drop-Lens Canopy
Fixtures
Usually Acceptable / May Need Shielding
Fixtures that shield the light source to minimize glare and light trespass
and to facilitate better vision at night
flat lens
Full Cutoff Fixtures
Fully Shielded
Wallpack & Wall
Mount Fixtures
Fully Shielded Fixtures
Full Cutoff Streetlight
Fully Shielded
Barn Light
Fully Shielded
Walkway
Bollards
Fully Shielded
Decorative
Fixtures
bulb shielded
in opaque top
Fully Shielded
'Period' Style
Fixtures
bulb shielded
in opaque top
Shielded / Properly-aimed
PAR Floodlights
Flush Mounted or Side
Shielded Under Canopy
Fixtures

FIGURE C: Sample Lumen Calculation Sheet (Excel sample available on City website)

1	**Alpine Sample Lumen Compliance Workbook**								
2									
3	**Complete Fixture Ordering Number**	**Label**	**Kelvin**	**Mtg Height**	**# Lamps**	**Initial Lumens**	**LLF****	**Total**	**Other Notes**
4	Bantam Chestnut Wall Sconce;BLE - W - CLAR10 400 with Maxlite LED 18057 13W Par 38 in 2700K	A1	2700K	10	11	1,050	0.95	10,972.50	Fully Shielded due to depth of fixture causing bulb to be recessed.
5	Bantam Chestnut Wall Sconce;BLE - W - CLAR10 400 with Maxlite LED 18057 11W Par 30 short neck in 2700K	A2	2700k	13	4	850	0.95	3,230.00	Fully Shielded due to depth of fixture causing bulb to be recessed.
6	Bowman 6 Wall Sconce; 700WSBOW-LED 827277	B3	2700k	8	4	1,163	0.95	4,419.40	
7	BK-E26-12-B-25 w/BK-111-BZ shades & L-BK-S14-1-120	SD	2700K	9	80	60	0.95	4,560.00	
8					Total Initial Luminaire Lumens			23,181.90	
9					Site Allowed Total Initial Lumens			31,074.60	
10					Is Project within Lumen Limits?			YES	
11									
12	Illuminated Acres (Note 1 acre = 43,560 sq ft)								
13	Allowance Description	Square Feet	Allowed per Sq Ft						
14	Gross square footage of portion of site to be illuminated. See Site Sq Ft Note below.	16560							
15	Square footage of building footprints within part of site to be illuminated.	3024							
16	Calculated Square footage of area to be illuminated	13536	2.2957	31,074.60					
17	Site Allowed Total Initial Lumens								