

CITY OF ALAMOSA PLANNING COMMISSION

February 28, 2024
6:00 PM
Council Chambers, 300 Hunt Avenue

Mission Statement: We are committed to providing balanced, effective and efficient public services for our residents, visitors and businesses by cultivating a vibrant, resilient and livable city.

Any person needing reasonable accommodation to attend or participate in a public meeting, please contact the Alamosa City Clerk's office by telephone (719) 589-2593, by email cityclerk@ci.alamosa.co.us, in person at 300 Hunt Avenue, or by mail at POB 419, Alamosa, CO 81101.

AGENDA

I. Call to Order

II. Roll Call

III. Agenda Approval

IV. Approval of Minutes

A. Minutes from January 24, 2024

V. Public Comments

VI. Regular Business

Potential Code Amendments for Dark Sky-Compliant Lighting

Request to Convert a Non-Conforming Light Industrial Telecommunications Use to a Conforming Use at 1405 Hunt Avenue

VII. Staff Updates

VIII. Adjournment

ALAMOSA PLANNING COMMISSION COMMISSION COMMUNICATION

Subject/Title:

Minutes from January 24, 2024

ATTACHMENTS:

Description		Type
▢	Minutes from January 24, 2024	Minutes

Planning Commission
January 24, 2024
6:00 p.m.
Minutes of the Meeting

The regular meeting of the Planning Commission was called to order on January 24, 2024 at 6:00 p.m. by Chairman Mark Manzanares. Present were the following members: Mark Manzanares, John Adams, Sandra Ortega, Reyna Martinez and Ralph Symbleme. A quorum was declared. Excused was Kindra Lambert. Staff present: Deacon Aspinwall, Rachel Baird, Nicole Valdez.

Agenda Approval: M/S/C. Ortega/Martinez Motion to approve agenda as presented. All in favor, none opposed.

Approval of the Minutes: M/S/C. Adams/Ortega Motion to approve minutes of the September 27, 2023 meeting as presented. All in favor, none opposed.

Public Comments:

No Public Comments

Regular Business:

A) Election of Chairperson & Vice ChairPerson as required by City Article XIV, Section 1.

Martinez makes a motion to keep everything the same. Manzanares as Chairman and Lambert as Vice Chairman. All in favor, none opposed.

B) 2024 Three Mile Annexation Plan Adoption

Staff member Aspinwall gives a brief update on the Annexation Plan.

Adams makes a motion to recommend the 2024 Three Mile Annexation Plan to City Council.

Ortega seconds the motion. Adams/Ortega, all in favor, none opposed.

C) First Session- Proposed Code Amendments for Dark Sky- Compliant Lighting

Dani Robins (2906 Sarah Lane Alamosa) from SLVGO gives a detailed presentation complete with a power point of the Proposed Amendments for Dark Sky.

Aspinwall gives a presentation on Dark Skies as well. This was an informational meeting for Planning Commission Members. Aspinwall and James explained to the members that this would

also be on the agenda for the next regular Planning Commission Meeting which is when questions and concerns would be answered.

Other Business:

A. Staff Updates:

- 1) Hunt Avenue Cultural Trail
- 2) DOLA Tech. Assistant Grant Housing Rehabilitation Program
- 3) 7 Brew- Almost operational
- 4) Melanzana Clothing Store going into the Del Mar Building
- 5) Downtown Hotels
- 6) County Comprehensive Plan kicked off
- 7) SLVGO- Headwaters Restoration River Redesign
- 8) Levee, Biological Assessment

B. Code Enforcement Updates: No updates

After no further business, the meeting was adjourned at 8:26 p.m.

Respectfully Submitted,

Nicole Valdez
Recording Secretary

ALAMOSA PLANNING COMMISSION COMMISSION COMMUNICATION

Subject/Title:

Potential Code Amendments for Dark Sky-Compliant Lighting

Background:

Note -This is the second session held with Planning Commission. Staff is seeking a recommendation to bring forward to City Council.

This follows a request a long time in the making by SLV Great Outdoors as part of the broader effort for the creation of the Sangre de Cristo Dark Sky Reserve. The original ordinance language proposed is attached, as well as the request letter, proposed light management plan, and additional background material.

In order to achieve the reserve designation, the areas of the periphery (which include Alamosa), must include at least 80% of the population. This means that Alamosa is the lynchpin for the success of the Dark Sky Reserve.

Analysis and Impact:

When considering changes to the code, there are three principles we ask ourselves. 1) Is it enforceable (both hypothetically and with existing staff resources and expertise)? 2) Is it achievable (will we get to/near the desired end result)? 3) Does it further legitimate governmental and community interests?

Staff reviewed the proposed ordinance language and modified it to the extent that staff believes is achievable from an enforcement and adoption perspective.

The intention of what is written is to 1) ensure that future installations comply with these regulations without being overly burdensome, and 2) set manageable thresholds for when non-conforming lighting is to be upgraded.

This will still be a big leap for the community. Only 4 of the 42 dark sky communities are about the same population as Alamosa. Hawthorn Woods, IL has a median household income of \$132k. Fredericksburg, TX Cottonwood, AZ, and Camp Verde, AZ are a closer to our incomes (but not poverty levels), but have an average home value of \$548k, \$425K, and \$412k, respectively, vs \$284k for Alamosa. Other communities are smaller or less developed, which makes implementation easier. This will doubtless have an impact on development. Additionally, the City does not currently have the funding dedicated towards retrofitting and updating existing municipal fixtures. This will be very expensive, and something staff will discuss with City Council at a future work session.

The feasibility question is always at the forefront of our minds when considering code changes. Most often, we are trying to remove barriers that make it difficult or infeasible for the average person to enhance their life and property in ways that do not perpetuate systemic inequality in our community. In other words, will these new regulations disproportionately target or penalize members of our community with less socioeconomic means?

Another important area to consider is how we can address and mitigate the biggest light emitters and polluters, such as Wal-Mart, the Alamosa School District, and Adams State University.

Finally, the intersection of lighting and crime is a highly debated one, though most police/criminology related studies do find that adequate lighting decreases crime. Other studies have concluded that lighting aids criminal activity, as it enables criminals to better identify targets. Still more studies demonstrate that patchy lighting makes potential crime victims more vulnerable, as it creates shadows for potential perpetrators to lurk in. According to the DarkSky website, "dark sky does not necessarily mean a dark ground. Smart lighting that directs light where it is needed creates a balance between safety and starlight."

It is also very important to acknowledge that this is the continuation of a community-led, grassroots priority, rather than a city-led staff-initiated effort.

Recommended Action:

Staff's standing on this question is neutral. Our role in this specific request is to 1) facilitate discussion, 2) ensure the proposed ordinance is achievable/enforceable/legitimate, 3) be subject matter experts on how these changes would interact with development.

Staff believes most of this is achievable, but also fully recognizes this will be difficult. Alamosa does not readily have the expertise, staffing, or funding (both at the municipal level and the community level at large) to make this happen overnight. Education will be key, and SLVGO! already has that initiative well underway.

The crucial question before Planning Commission is whether the will of the community is sufficient enough to to enact this change. Staff believes that many in our community support the concept of darker skies. Does that desire translate into a willingness to be further regulated in order to achieve that goal? If Planning Commission believes there is sufficient community support, staff endorses the city-proposed lighting ordinance. City staff will be holding a work session with City Council on 3/13. Work sessions are open to the public.

Alternatives:

Planning Commission may choose to recommend the city-presented version, the SLVGO! version, or recommend potential changes to either version.

Planning Commission may choose to deny recommendation to City Council.

ATTACHMENTS:

Description	Type
▣ Request from SLV GO! and submitted language	Backup Material
▣ Sangre de Cristo Dark Sky Reserve Lighting Management Plan	Backup Material
▣ International Dark Sky Reserve Program Guidelines	Backup Material
▣ City-modified potential dark sky lighting ordinance	Backup Material



Sangre de Cristo Dark Sky Reserve

PROPOSED BY

San Luis Valley Great Outdoors

PROPOSED TO

City of Alamosa



Dani Robben
610 State St.
San Luis Valley Great Outdoors
Alamosa, CO 81101

September 7, 2023

Dear Planning Committee Members,

My name is Dani Robben and I am the Community Connections Coordinator with San Luis Valley Great Outdoors (SLV GO!) in Alamosa, CO. I am writing to gain the City of Alamosa's support and engagement in a region-wide effort to protect our night skies. SLV GO! is currently spearheading a dark sky initiative in hopes to create one of the world's largest dark sky reserves that will be recognized by DarkSky International (DSI) as the "Sangre de Cristo Dark Sky Reserve." The purpose of this project is to protect one of the region's most valuable natural assets: our dark skies. Dark skies are not only valuable for astronomers, but benefits human health and safety, wildlife and ecosystems, local tourism, energy efficiency, and preserves the rural character of the SLV.

Research shows that artificial light at night can negatively affect human health by increasing risks for obesity, depression, sleep disorders, diabetes, breast cancer, and more. In addition, there is no clear scientific evidence that outdoor lighting deters crime. In fact, outdoor lighting that is too bright, can actually be a detriment to our safety because it causes glare and interferes with our vision. Artificial light also disrupts the way that plants and animals reproduce, obtain nourishment, sleep, and protect themselves because of light alteration at night. Another major drawback is the waste of energy and money when lighting emits too much light or shines when and where it is not needed. DSI estimates that 30% of all outdoor lighting in the U.S. alone is wasted. Lastly, the night sky has been the inspiration for incredible manifestations, including navigation of the globe and learning about our expanding universe. To not reveal a night sky to future generations is to damper creativity and innovation in our society.

Did you know that four out of five Americans live in places where they can no longer see the Milky Way? As major cities and their associated light pollution take away our dark skies, small communities like Westcliffe and Silver Cliff in the Wet Mountain Valley and Crestone in the SLV, have seized the opportunity to conserve it. In the past several years these towns have become designated Dark Sky Communities. In 2019, Great Sand Dunes National Park became a certified Dark Sky Park. With community collaboration we can protect our night sky asset while we have it, and mitigate any future lighting that could harm it. The San Luis Valley is fortunate enough to have starry, night skies. Together, we can set an example for the world to see.

Sincerely,

Dani Robben

PROJECT PROPOSAL

SANGRE DE CRISTO DARK SKY RESERVE

The San Luis Valley has the potential to become part of one of the largest dark sky areas in the United States. The area's extensive public lands, dry climate, low population density, and high altitude are conducive to natural darkness and exceptional starry night skies. Today, 80% of Americans can no longer see the Milky Way, and the San Luis Valley still contains one of the darkest skies in the country. The citizens of Alamosa enjoy all the benefits of being a rural community: less noise and air pollution, a stronger sense of community, less traffic, and more open spaces. Dark skies are another less commonly talked-about advantage of living in rural America. As a naturally darker and less-populated place, the City of Alamosa has an opportunity to preserve a highly sought-after, rapidly disappearing natural resource – dark skies. As Alamosa continues to plan for expansion and development in its Comprehensive Plan, the City has the unique opportunity to prevent an increase in light pollution and remain one of the darkest parts of Colorado for generations to come. The City of Alamosa could become a leader among neighboring communities in protecting dark skies by passing a dark sky exterior lighting ordinance. This proposed ordinance would limit light pollution, thus saving the City money, reducing energy usage, promoting dark sky tourism, protecting human and environmental health, and reducing the strain on wildlife.

THE ASK

SLV GO! is requesting that the City of Alamosa adopt the Reserve's Lighting Management Plan by updating its exterior lighting standards to meet the minimum requirements of DarkSky International's (DSI) International Dark Sky Places Program. This will help facilitate the process of establishing the Sangre de Cristo Dark Sky Reserve by helping meet DSI's requirement that "a quality comprehensive Lighting Management Plan (LMP) should be adopted by a sufficient number of communities within the entire Reserve (core and periphery) corresponding to at least 80% of the population AND 80% of the designated area of protection."

DARK SKY ENGAGEMENT

01

REVISE

The Unified Development Code to abide by the dark sky standards set by DSI.

03

SUPPORT

Public education of dark skies, natural nighttime darkness, and the benefits of quality lighting.

02

ENCOURAGE

All new outdoor lighting to conform to the relevant regulations for night sky friendly lighting.

04

ACKNOWLEDGE

The value of dark skies as shown by the inclusion of appropriate language in official documents for long term planning.

Unified Development Code Revisions

To facilitate the designation of the Sangre de Cristo Dark Sky Reserve and to achieve DSI's 5 Principles of Responsible Outdoor Lighting within the City of Alamosa's Unified Development Code, SLV GO! is proposing the following amendments to the Code. Please note these amendments may not be entirely complete, and refer to the attached Lighting Management Plan to revise accordingly.

- Provisions that are being deleted are in black strikethrough text.
- Provisions that are being added are shown in red text.

DIVISION 4-7. - SIGNS

Sec. 21-4-703. - Design characteristics.

...

- (e) Illumination. ~~Internal and external illumination of permanent signs~~ All permanent signs may be non-illuminated, illuminated by internal, internal indirect (halo), or lit by external indirect illumination is allowed in all nonresidential and mixed-use zones, and for multifamily and nonresidential uses in residential zones, as follows:
- (1) All illumination shall comply with the standards set out in division 5-4, Lighting.
 - (2) External lights, electrical equipment, and wiring shall be concealed from view.
 - (3) Flashing, blinking, or chasing lights are not allowed.
 - (4) Lighted signs in residential zones shall be turned off by 10:00 p.m. All illuminated signs in nonresidential and mixed-use zones shall be distinguished by 11:00 p.m. or within one (1) hour of the end of normal business hours, whichever occurs later (unless required for wayfinding or the business is open 24 hours).
 - (5) 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.
 - (6) Internally illuminated signs (whether free standing or building mounted) shall be subject to all of the following requirements:
 - a. The sign must be constructed with an opaque background and translucent letters and symbols or with a dark colored background and lighter letters and symbols.
 - b. The luminous surface of an individual sign shall not exceed 200 square feet (18.6 square meters).
 - c. The internal illumination, between sunrise and sunset, is to be the lowest intensity needed to allow the sign to be visible for up to 1/2 mile from its installation and shall not exceed 100 nits (100 candela per square meter).
 - d. The luminous surface area of an individual sign shall not exceed 200 square feet.
- (f) Electronic Message Centers. Electronic message centers are allowed on freestanding permanent signs in the CB and CBD zones, as follows:
- (1) Electronic message centers are subject to the requirements of division 5-4, Lighting.
 - (2) Electronic message centers shall appear to be integrated into a permanent freestanding sign, and shall not comprise more than 35 percent of the sign area of sign to which they are attached.
 - (3) Not more than one electronic message center is allowed per subject property.

- (4) Electronic message centers are not allowed if a changeable copy panel is present on the subject property.
- (5) Electronic message centers that are both visible from, and located within 100 feet from, a residential zone shall be turned off by 10:00 p.m.
- (6) Messages appearing on electronic displays shall not be displayed for less than thirty (30) seconds and shall require no longer than 0.25 seconds to transition from one message to another. Moving and/or flashing text or images are prohibited.
- (7) Display brightness, between sunrise and sunset, is to be the lowest intensity needed to allow the sign to be visible for up to 1/2 mile from its installation and shall not exceed 100 nits (100 candela per square meter).
- (8) The luminous surface area of an individual sign shall not exceed 200 square feet.

DIVISION 4-8. - DESIGN STANDARDS

Sec. 21-4-805. - Manufactured home park and manufactured home subdivision design standards.

- (f) Lighting. All interior streets and sidewalks shall be lighted for safe movement of vehicles and pedestrians at night. Such lights shall be fully shielded to prevent glare on adjacent properties and external streets, and to avoid sky glow. All outdoor lighting shall adhere to division 5-4. Lighting.

DIVISION 5-4. - LIGHTING

~~Sec. 21-5-401. - Single family detached, duplex, and townhome lighting standards.~~

~~Exterior lighting on single family detached, duplex, and townhome lots shall either be provided with fixtures that emit 1,500 lumens or less, or be configured so that lights do not cause glare that is visible outside of the property lines of the subject property. All exterior lighting on single family, duplex, or townhome lots is subject to Sec. 21-5-404, Public Safety and Public Nuisance. exterior lighting shall comply with the standards of Section 5-402.~~

Sec. 21-5-401. - Purpose and intent.

The purpose of this section is to provide standards for outdoor lighting design that preserves, protects, and enhances the City's night sky while conserving energy, permitting reasonable and safe nighttime use of properties, minimizing glare and obtrusive light, and helping to protect the natural environment and wildlife from the impacts of night lighting. These standards are based on the requirements of DarkSky International's (DSI) 2018 International Dark Sky Reserve guidelines.

~~Sec. 21-5-402. - Multifamily, nonresidential, and mixed-use lighting standards.~~

Sec. 21-5-402. - Scope and applicability.

- (a) Compliance. All exterior outdoor light luminaires that are replaced or newly installed after the effective date hereof in all zones in the city shall conform to the requirements established by this division.
- (b) Nonconforming Uses: All existing outdoor lighting that does not meet the requirements of this division and is not exempted by this division shall be considered a nonconforming use. The City will encourage property owners to voluntarily bring nonconforming exterior lighting into compliance with this division. Where appropriate, the City may also provide assistance and expertise to homeowners in bringing their exterior lighting fixtures into compliance with this division. Refer to Sec. 21-7-404. - Nonconforming Lighting.

- (c) Modifications; Compliance Through Building Permit Process. The City shall require an exterior lighting fixture to be brought into compliance, through the building permit process, if substantial modifications are made to the exterior of the building or if the footpring of the structure is enlarged.
- (d) Change of Ownership: Properties that change ownership, whether residential or commercial, must bring exterior lighting into compliance with this division.

Sec. 21-5-403. - Application and Review Procedure.

- (a) Lighting Plans Required. All site or design related and modification permit applications shall include a lighting plan that shows evidence that the proposed lighting fixtures and light sources will comply with this division and shall include the following:
 - (1) Plans or drawings indicating the proposed location of lighting fixtures, height of lighting fixtures on the premises, and type of illumination devices, lamps, supports, shielding and reflectors used.
 - (2) Illustrations, such as contained in a manufacturer's catalog cuts, of all proposed lighting fixtures. For commercial uses, photometric diagrams of proposed lighting fixtures are also required. In the event photometric diagrams are not available, the applicant must provide sufficient information regarding the light fixture, initial lumen rating, wattage of each lamp source, and shielding mechanisms for the planning commission to be able to determine compliance with the provisions of this chapter.
 - (3) A table showing the total amount of proposed exterior lights, by fixture type, wattage, lumens, lamp type, and control descriptions including type of controls (timer, motion sensor, time clock, etc.)
 - (4) Aiming angles and diagrams for recreational lighting fixtures.
- (b) The lighting plan for all new development and major modifications shall be submitted for approval concurrent with the associate application process pursuant in division 8-2. - Permits and Approvals.

Sec. 21-5-404. - Outdoor lighting standards.

- (a) **Generally.** Exterior lighting ~~on multifamily, nonresidential, and mixed-use sites~~ **in all zones** shall conform to the requirements of this Section. ~~Exterior lighting that does not produce glare or sky glow and is not visible from outside of the subject property is exempt from the provisions of this section.~~
- (b) **Fixture Types.**
 - (1) ~~Generally, light fixtures (wherever mounted)~~ **All outdoor lighting subject to this Code** shall be **"cut-off" fully shielded** ~~fixtures that are oriented to limit illumination that is visible or measurable at the property line.~~ **as described by Dark Sky International (DSI) and directed toward the ground or downward, shielded by roof elements, or effectively recessed to minimize light trespass, glare, and skyglow.**
 - (2) ~~"No cut-off"~~ **Unshielded or partially shielded** fixtures may be used only for decorative purposes, provided:
 - a. ~~Their~~ **They are** luminaires that produce no more than ~~1,500~~ **500** lumens (approximately equal to a traditional ~~100W~~ **60W** incandescent bulb); and
 - b. They are not installed above a height of eight (8) feet.
- (c) **Maximum Freestanding Fixture Height.** No freestanding light fixture shall be greater than twenty-five (25) feet in height, except that greater heights may be approved by the Administrator if it is demonstrated that the greater height improves site lighting compared to fixtures that are

twenty five 25 feet in height or less.

(d) Maximum Illumination Levels.

(1) Brightness of outdoor lighting should be no more than necessary for the task at hand as defined by the Illuminating Engineering Society (IES RP-33-14 & RP-43). For nonresidential developments, a maximum of 50,000 lumens per net acre is permitted; and 25,000 lumens per net acre for residential.

(+)(2) Outdoor lighting shall be deflected, shaded and focused away from adjacent properties, and shall not be a nuisance to such adjacent properties.

(-)(3) Outdoor lighting shall be designed so that any overspill of lighting onto adjacent properties shall not exceed three-tenths of a foot-candle, measured vertically, and three-tenths of a foot-candle, measured horizontally, on adjacent properties.

(e) Canopy Lighting. Canopy lighting for uses that have sheltered outside work or service areas or porte-cocheres, shall meet the standards of this Section. All lighting fixtures shall be recessed into the canopy so that they cannot be viewed from off-site from an eye height of four feet.

(f) Color Temperature. Outdoor lighting fixtures will be chosen to minimize the amount of short-wavelength light emitted into the nighttime environment. The City will prefer amber, yellow, and similar colors for lighting, and avoid bright white light wherever practically possible unless a demonstrated need for color rendition exists. In no case shall the correlated color temperature exceed 3000 K (Kelvins). Luminaires rated 2700K or below are encouraged for better nighttime visibility.

(g) Adaptive Controls. The use of adaptive controls such as half-night photocells, timers, and motion sensors is encouraged so that light fixtures are not on when no one is there to use them. Lighting controlled by motion-activated sensors that limit the duration of illumination to less than five (5) minutes after activation are exempt from this Section, but it is strongly encouraged to use the appropriate color temperature and other dark sky friendly lighting practices.

(h) General Curfew.

(1) In all nonresidential zones,

- a. All privately owned outdoor lighting not adaptively controlled shall be extinguished by 11:00 pm or within one (1) hour of the end of normal business hours, whichever occurs later.
- b. Outdoor lighting with adaptive controls shall reduce lighting to 25% or less of the total outdoor lighting output allowed by 11:00 p.m. or within one (1) hour of the end of normal business hours, whichever occurs later.
- c. Businesses whose normal operating hours are (24) twenty-four hours a day are exempt from this provision.
- d. All publically owned lighting not adaptively controlled must be fully extinguished by 11:00 pm, or within one (1) hour of the end of occupancy of the structure or area to be lit, whichever is later.
- e. All outdoor lighting is encouraged to be turned off when no one is present to use the light.

(i) Flagpole Lighting.

(1) Property owners are encouraged to not light flagpoles at night, but rather to hoist flags after dawn and lower flags after sunset.

(2) If flags are illuminated at night, lighting is permitted with the following conditions:

- a. Flagpoles with a height greater than twenty (20) feet above ground level shall be illuminated only from above. The total light output from any luminaire mounted on top or above the flagpole shall not exceed 800 lumens.
- b. Flagpoles with a height equal to or less than twenty feet above ground level may be illuminated from below with up to two (2) spotlight type luminaires emitting no more than 1,000 lumens, utilizing shields to reduce glare and prevent excessive light from shining around the intended target of illumination (the flag).
- c. Luminaires are to be mounted so that their lenses are perpendicular to the flagpole and the light output points directly to the flag.

~~Sec. 21-5-403.~~ **Sec. 21-5-405 - Exterior lighting for outdoor recreation.**

- (a) Generally. Ball diamonds, playing fields, driving ranges, tennis courts, and similar amusement or recreation uses have unique requirements for nighttime visibility and, generally, have limited hours of operation. The standards of this section, and not section ~~21-5-402~~ **21-5-404**, apply to outdoor recreation uses.
- (b) Fixture type. Light fixtures for illumination of playing courts and athletic fields shall be "cut-off" fixtures that are oriented to limit sky glow and direct lighting that is visible or measurable at the property line.
- (c) Maximum freestanding fixture height. No freestanding light fixture shall be greater than forty (40) feet in height, except that greater heights may be approved by the administrator if it is demonstrated that the greater height improves site lighting compared to fixtures that are forty (40) feet in height or less.
- (d) Maximum illumination.
 - (1) Field and court lighting shall be deflected, shaded and focused away from adjacent properties and shall not be a nuisance to adjacent properties.
 - (2) Field and court lighting shall be designed so that any overspill of lighting onto adjacent properties shall not exceed one-half foot-candle, measured vertically, and one-half foot-candle, measured horizontally, at the property line.
 - (3) Buffering may be used to reduce impacts of outdoor recreation lighting in order to achieve compliance with the requirements of this subsection (d).
 - (4) Lighting will provide levels of illuminance that are adjustable according to the task, allowing for illuminating levels not to exceed nationally recognized Illuminated Engineering Society standards according to the appropriate class of play, as well as for lower output during other times, such as when field maintenance is being actively performed.
- (e) Curfew. Lighting must be extinguished within one (1) hour of the end of active play. New installations of outdoor sports facility lighting shall be fitted with mechanical or electronic timers to prevent lights from being left on accidentally overnight.

Sec. 21-5-406. - Greenhouse lighting.

Wholesale nurseries or greenhouses are allowed in MU or CB Zones and must follow the following provisions in addition to Sec. 21-5-404. - Outdoor lighting standards.

- (a) One-hundred (100%) of the greenhouse facility is required to be screened if indoor lighting is used during nighttime hours, which is between sunset to sunrise.
- (b) No artificial lighting for cultivation or agricultural purposes shall be visible from outside. Black out curtains or another type of light obstruction must be used.

~~Sec. 21-5-404.~~ **Sec. 21-5-407. - Public safety and public nuisance.**

...

Sec. 21-5-408. - Exemptions.

The following are exempt from the requirements herein:

- (a) Existing lighting that remains unchanged (including ongoing standard maintenance such as bulb replacement and/or painting of existing poles and fixtures) shall be exempt from the requirements herein unless altered to meet the criteria of Section 21-5-404. Outdoor Lighting Standards.
- (b) Lighting that is not permanently installed and of a temporary nature such as that needed for construction or by law enforcement or emergency services personnel to protect life or property.

Such lighting shall be discontinued upon completion of the work for the day or resolution of the emergency necessitating its usage. Where safety is a concern, this lighting may be allowed to remain in operation after operations are complete, with City approval.

- (c) Official traffic control devices and lights owned and operated by or pursuant to proper authority of the United States of America, the State of Colorado or any of their agencies, and such other lights as are specifically required by federal or state law.
- (d) Alamosa Municipal Airport Lighting. Required navigational lighting systems at public airports for the safe and efficient movement of aircraft during flight, take off, landing, and taxiing are exempt from the provisions of this division.
- (e) String, bistro, and similar lighting provided that the emission of no individual lamp exceeds fifty (50) lumens, and no installation of such lighting exceeds, in the aggregate, six thousand (6,000) lumens. These lights must be rated at or below 3000K.
- (f) Low voltage LED lights and solar lights used to illuminate pathways in residential areas, provided the lights are installed no more than eighteen inches (18") above the adjacent ground level and have caps that direct the light downward.
- (g) Holiday lighting. Unshielded, winter holiday lighting including but not limited to lighting in outdoor trees, shall be illuminated only between November 15 and January 30. All other lighting associated with any national, local or religious holiday or celebration may be illuminated two weeks prior to the holiday and extinguished within two days after the holiday. The light intensity of all holiday lighting shall not exceed one-half (1/2) of a foot candle at the property line.

Sec. 21-5-409. - Prohibited Outdoor Lighting.

The following types of outdoor lighting are prohibited:

- (a) Outdoor floodlighting by flood light projection above the horizontal plan.
- (b) Search lights, flood lights, laser source lights, or any similar high intensity light, except in emergencies by police, fire or medical personnel or at their direction.
- (c) Flashing or blinking lights, or lighting with changing intensity except for seasonal holiday lighting.
- (d) Any light that could be construed as a traffic control device and which has not been authorized by a state, federal or city government.

Sec. 21-5-410. - Nonconforming Outdoor Lighting.

Section 21-7-404, Nonconforming Lighting, provides the standards and regulations for nonconforming outdoor lighting.

Sec. 21-5-411. - Violations and Enforcement.

[This section is paraphrased from the corresponding section in the Tucson & Pima County Lighting Ordinance. This must be adapted to City of Alamosa standards.]

- (a) Any violation of this ordinance shall be considered a civil infraction and is subject to penalties not to exceed the amount of the maximum fine for a class 2 misdemeanor in accordance with State law. Each day of continuance of the violation constitutes a separate violation. Maximum fines are \$750 for individuals and \$10,000 for corporations, associations, or other legal entities. Enforcement procedures shall be pursuant to those established by the City of Alamosa.
- (b) The requirements of this division shall be enforced in compliance with the enforcement provisions of Division 9-2., Enforcement Procedures.

DIVISION 11-2. - RULES OF CONSTRUCTION, ACRONYMS, AND DEFINITIONS

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Please see pages 17 and 18 of the Sangre de Cristo Dark Sky Reserve Lighting Management Plan to consider lighting definitions to accompany the aforementioned amendments.

Additional items needed if considering International Dark Sky Community Certification
(As stated in IDSC 2018 Program Guidelines):

...

E) Regulations of new installations of publicly-owned outdoor lighting:

- i) A provision that clearly indicates where, when, and under what circumstances new publicly owned outdoor lighting, including street lighting, is warranted and will be permitted; AND*
- ii) A provision that requires that adaptive controls and/or curfews be employed in all future installations of public outdoor lighting.*

H) Affects an amortization period, applicable to ALL publicly AND privately owned lighting, to end not more than ten (10) years from the effective date of the outdoor lighting policy, after which all non-conforming lighting extant at the time of enactment must be brought into compliance with the policy.

Sample Language (adapted from Paonia ordinance):

New public lighting, owned and operated by the City of Alamosa, either streetlights, walkway lights, or external building lighting shall be allowed as recommended by the City Administrator in situations where a public health hazard exists which can only be mitigated by artificial light at night and shall be in compliance with Sec. 5.4 Lighting. Adaptive controls or curfews shall be employed in all new public outdoor lighting installations.

Amortization period. The City adopts ordinance XX-XXXX requiring all existing outdoor lighting in Alamosa to meet these Code standards within a period of ten (10) years. After the effective date hereof, this section shall apply to all exterior outdoor lighting city-wide, including existing residential lighting and illumination from existing outdoor signs. After this date, no person shall install or maintain any light fixture or illuminated sign unless such light fixture meets the requirements of this section. The City plans to update all City owned exterior lighting to meet the standards outlined in this code within a ten (10) year period.

Questions?

If you have any questions or concerns, please contact Dani Robben,
Community Connections Coordinator at danirobben@slvgo.com or 218.407.0399.

Sangre de Cristo Dark Sky Reserve

Lighting Management Plan

1. Purpose

The provision of an outdoor Lighting Management Plan (LMP), and its continued implementation, is an essential requirement of DarkSky International (DSI) when considering the initial merits of an application for a Dark Sky Place Certification. The principal goal of the LMP is to ensure that the already naturally dark sky in this region is not only protected, but also further enhanced, through various measures, such as dark sky education programs and the adoption of responsible lighting practices. The Sangre de Cristo Dark Sky Reserve is a community project driven by the Sangre de Cristo Dark Sky Coalition (Coalition), which includes representatives from public land management agencies, land trusts, private ranches, educational institutions, astronomy clubs, municipalities, counties, and more. Coalition partners will continue the decades-long campaign of education and awareness to encourage visitors to, residents of, and businesses in the Reserve to adopt night-sky friendly lighting practices for the protection of the night sky and benefits to the end user.

DSI summarizes the many reasons why controlling light pollution is important:¹

1. *Energy Waste and Carbon Emissions.* In an average year in the U.S. alone, outdoor lighting uses about 120 terawatt-hours of energy, enough energy to meet New York City's total electricity needs for two years. That adds up to \$3.3 billion and the release of 21 million tons of carbon dioxide per year. This is mostly from high intensity lights (high lumens and correlated color temperatures) used to illuminate streets and parking lots. Additionally, at least 30 percent of all outdoor lighting in the U.S. alone is wasted, mostly by lights that aren't shielded. To reduce energy consumption, many municipalities are replacing older, conventional, lighting systems with new, energy efficient, light emitting diodes (LEDs). However, when designing dark sky friendly outdoor lighting, one must consider more than just energy efficiency when addressing the numerous impacts from light pollution.
2. *Negative Effects on Wildlife and Human Health.* Numerous studies have shown that artificial light at night, especially with excessive brightness and color temperature, has numerous negative and deadly effects on many types of wildlife including birds, amphibians, insects and mammals. These lights also affect human health by disrupting sleep and causing mood disorders.
3. *Crime and Safety.* There is no clear scientific evidence showing that increased outdoor lighting deters crime. While brighter lighting may make us feel safer, poor outdoor lighting can actually reduce our personal safety. Studies have found a correlation between increased crime and brightly lit alleyways. In fact, glare from bright lights

creates shadows where criminals can hide and some crimes like vandalism and graffiti thrive on lighting. Glare can also be dangerous to pedestrians and drivers. It shines into our eyes and constricts our pupils, which diminishes our ability to adapt to low-light conditions.

Alamosa County's Code of the West best states why a lighting management plan is vital to protecting our night skies and community health and well-being.²

"When well designed and properly installed, outdoor lighting can be very useful in improving visibility and safety and creating a sense of security, while at the same time minimizing energy use and operating costs. If outdoor lighting is not well designed and properly installed, it can be costly, inefficient, glaring and harmful to the nighttime environment. Poorly designed or poorly installed lighting can cause a great deal of glare that can severely hamper the vision of pedestrians, cyclists, and drivers, creating a hazard rather than increasing safety. Glare occurs when you can see light directly from the fixture (or bulb). Unshielded and over-lamped outdoor lighting shines onto neighborhood properties and into bedroom windows, reducing privacy, hindering sleep, and creating an unattractive look to the area. Much of our outdoor lighting wastes energy because it is not well designed. This waste results in high operating costs and increased environmental pollution from the extra power generation needs. We waste over a billion dollars a year in the United States alone lighting up the sky at night. A large fraction of poor lighting shines directly upwards, creating the adverse sky glow above our cities that washed out our view of the dark night sky, taking away an important natural resource. In addition to the cost savings, less sky glow will allow future generations to enjoy the beauty of the stars, and children will be inspired to learn and perhaps to enter the field of science."

A well-written ordinance, with proper lighting installed, will save the public money and increase safety. DSI, in collaboration with the Illuminating Engineering Society (IES), created the *Model Lighting Ordinance* (MLO) to make it easier for municipalities to adopt good lighting plans. This LMP is derived from the MLO and is intended to guide the selection, placement, installation, and operation of all new and replacement lighting in the Sangre de Cristo Dark Sky Reserve (called Reserve in this document), as well as provide guidelines for municipalities, counties, and public and private entities that choose to participate in this dark sky initiative. Outdoor lighting within the Reserve will be managed and regulated by a host of jurisdictions and entities involved in the Reserve project: municipalities, counties, homeowners or property owners associations, public land management agencies, and utility companies. Although lighting policies will likely differ amongst regulatory agencies in some respects, the common goal is to achieve at least the minimum requirements for the DSI's Dark Sky Places Program through a set of unified guidelines.

This LMP's function is to regulate the use of artificial light at night (ALAN) in the Reserve in a way that prioritizes the safety of people and property while minimizing the impact of such light on protected outdoor spaces, viewsheds and wildlife. Therefore, all instances of the use of ALAN in the Reserve will adhere to the *Five Principles for Responsible Outdoor Lighting* (Figure 1).³ Figure 2 helps illustrate these principles.⁴

LIGHT TO PROTECT THE NIGHT

Five Principles for Responsible Outdoor Lighting



Illuminating
ENGINEERING SOCIETY



USEFUL



ALL LIGHT SHOULD HAVE A CLEAR PURPOSE

Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.

TARGETED



LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED

Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.

LOW LIGHT LEVELS



LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY

Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.

CONTROLLED



LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL

Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.

COLOR



USE WARMER COLOR LIGHTS WHERE POSSIBLE

Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.

Figure 1. The Five Principles for Responsible Outdoor Lighting.

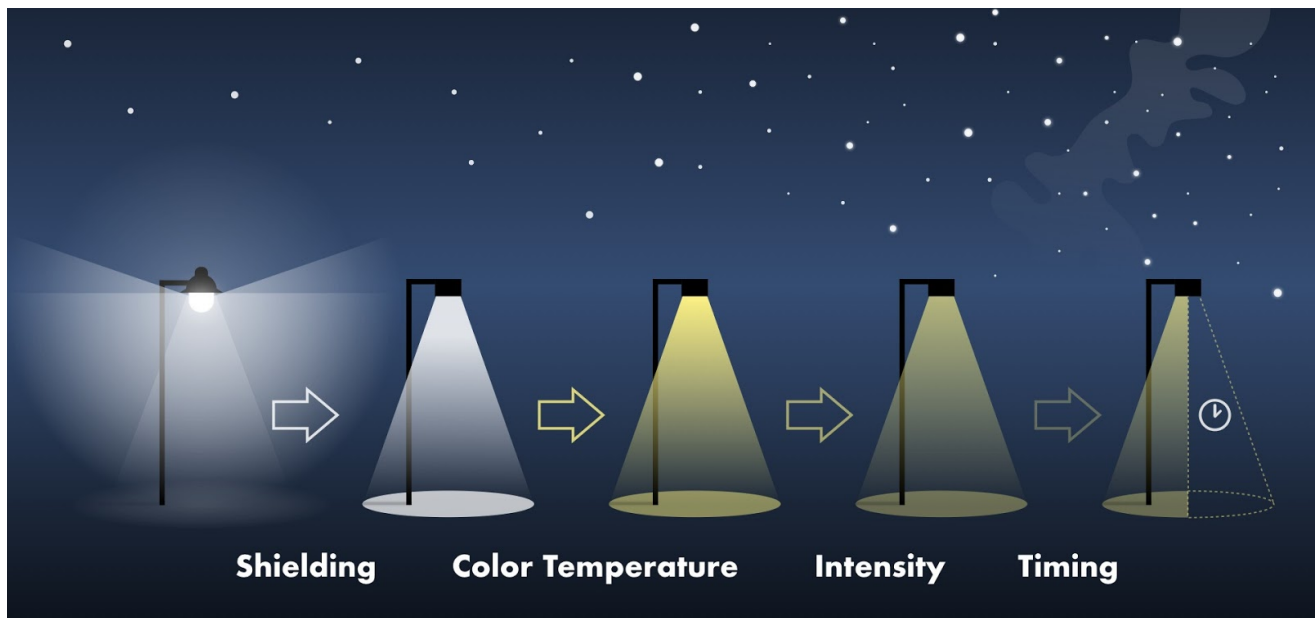


Figure 2. Illustration of principles for responsible outdoor lighting.

1.1 LMP Region of Focus

In the rest of this document, we will refer to two different zones within the Reserve as shown in the map below: the “**core area**” of the Reserve and the “**periphery area**.” Different rules may apply to these two different zones.

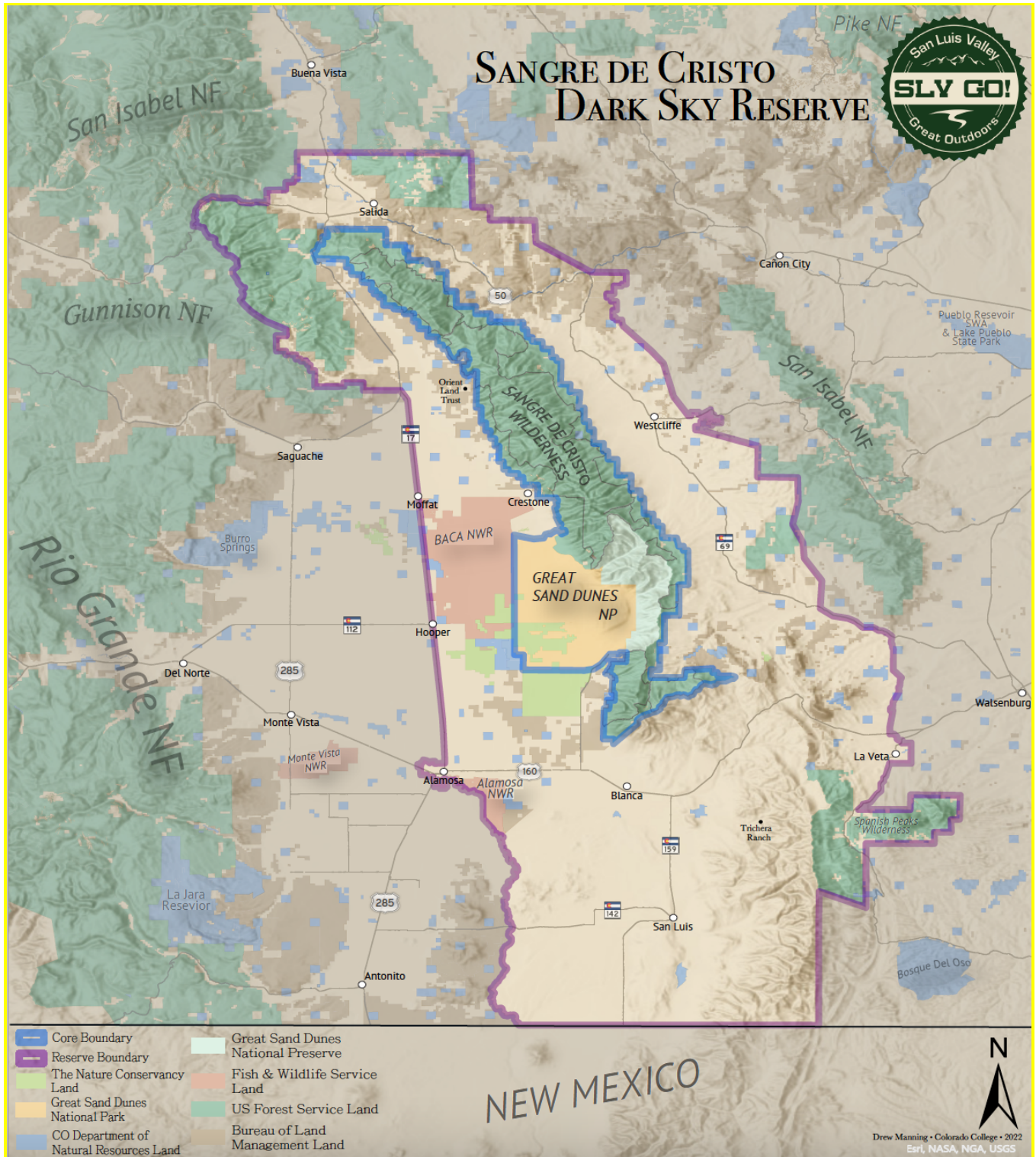


Figure 3. Map of the Sangre de Cristo Dark Sky Reserve.⁵

The LMP applies to the entire Reserve although some provisions are particular to the core and periphery area exclusively as defined below.

Core Area

The LMP applies to the core of the Reserve, which is located within the Sangre de Cristo Mountain Range and includes:

- a. Great Sand Dunes National Park and Preserve (GRSA), International Dark Sky Park - designated in May of 2019
- b. Great Sand Dunes Wilderness
- c. Sangre de Cristo Wilderness
- d. Rio Grande National Forest
- e. San Isabel National Forest

As the core consists of federal lands that are exempt from local regulation, the United States Department of Agriculture, United States Forest Service, Conejos Peak, Saguache, Salida, and San Carlos Ranger Districts, as well as the United States Department of the Interior, National Park Service, Great Sand Dunes National Park and Preserve, have the responsibility for adhering to this LMP and have additionally committed to honoring local outdoor lighting regulations as closely as possible.

Periphery Area

The periphery area includes part of the following eight counties and numerous communities, who individually bear responsibility for regulations that support this LMP: Alamosa, Chaffee, Costilla, Custer, Fremont, Huerfano, Las Animas, and Saguache Counties. Several of the counties and municipalities in the periphery area have recently updated or adopted lighting regulations that meet or exceed the LMP provisions, and many other communities in the periphery have committed to the Reserve LMP and will ensure that any new or retrofitted lighting will comply with the LMP.

1.2 LMP Provisions

The following provisions shall apply throughout the entire Reserve except when specific to the core or periphery area as defined. Definitions of terms used are found at the end of this document.

1.2.1 Light Fixture Shielding

A fully shielded light fixture has a solid barrier (cap) at the top of the fixture in which the lamp (bulb) is located. The fixture is angled so the lamp is not visible below the barrier (no light visible below the horizontal angle).

The goal of fully shielded light fixtures is to prevent the following:

1. Light trespass, which adversely affects neighboring and distant properties.
Unshielded light travels much farther than people realize.
2. Glare, which can cause discomfort or temporary blindness.
3. Sky glow, which keeps all of us from enjoying the splendor of the night sky.

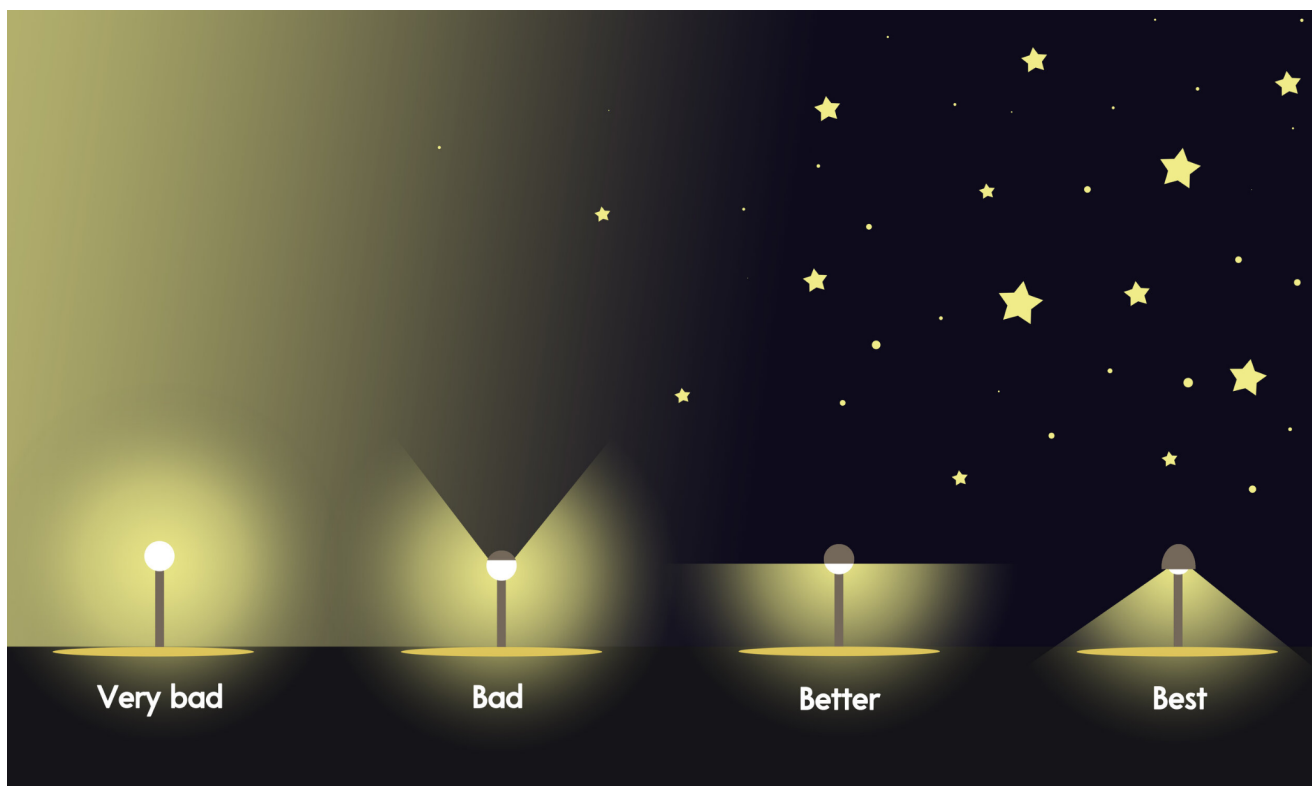


Figure 4. Degrees of light shielding and their impacts on dark sky visibility.

All outdoor light sources shall be fully shielded such that the cut-off angle of all lighting devices (future or replaced) inside of the Reserve must be strictly less than 90° from vertical so no light rays are emitted at or above the horizontal plane (see better and best categories in Figure 4).⁶

The only exceptions are:

- Light sources of 500 lumens or less that may be left unshielded in core areas only for special purposes such as historical preservation (see 1.2.7 Heritage, Architectural, Landscape, and String Lighting).
- Light sources of 500 lumens or less may be left unshielded in the periphery area for purposes such as historical preservation, architectural lighting, or landscape lighting so long as the lighting is in accordance with the appropriate jurisdiction's outdoor lighting requirements.

These lights should not be exempt from other LMP requirements and should be designed to minimize the impact on the night environment.

Further, to the greatest possible extent, the Reserve will endeavor to limit the inadvertent or incidental emission of light from indoor spaces to the outdoors through the use of curtains, indoor lighting timers/switches, and other appropriate measures.

	Core Area	Periphery Area
Light Fixture Shielding	All outdoor lighting must be fully shielded, except for light sources of 500 lumens or less for special purposes such as historical preservation	All outdoor lighting must be fully shielded, except for light sources of 500 lumens or less for special purposes such as historical preservation, architectural lighting, or landscape lighting so long as they are in accordance with local outdoor lighting requirements

1.2.2 Spectral Quality of Lighting

Spectral quality is a complex term that mainly refers to how warm or cool a light appears (correlated color temperature of light, CCT). Cool, blue light brightens the night sky more than any other color of light because blue light is preferentially scattered by air molecules. Thus, warm white light sources are preferred, because it results in less sky glow. In addition, exposure to blue light at night has also been shown to harm human health and endanger wildlife.

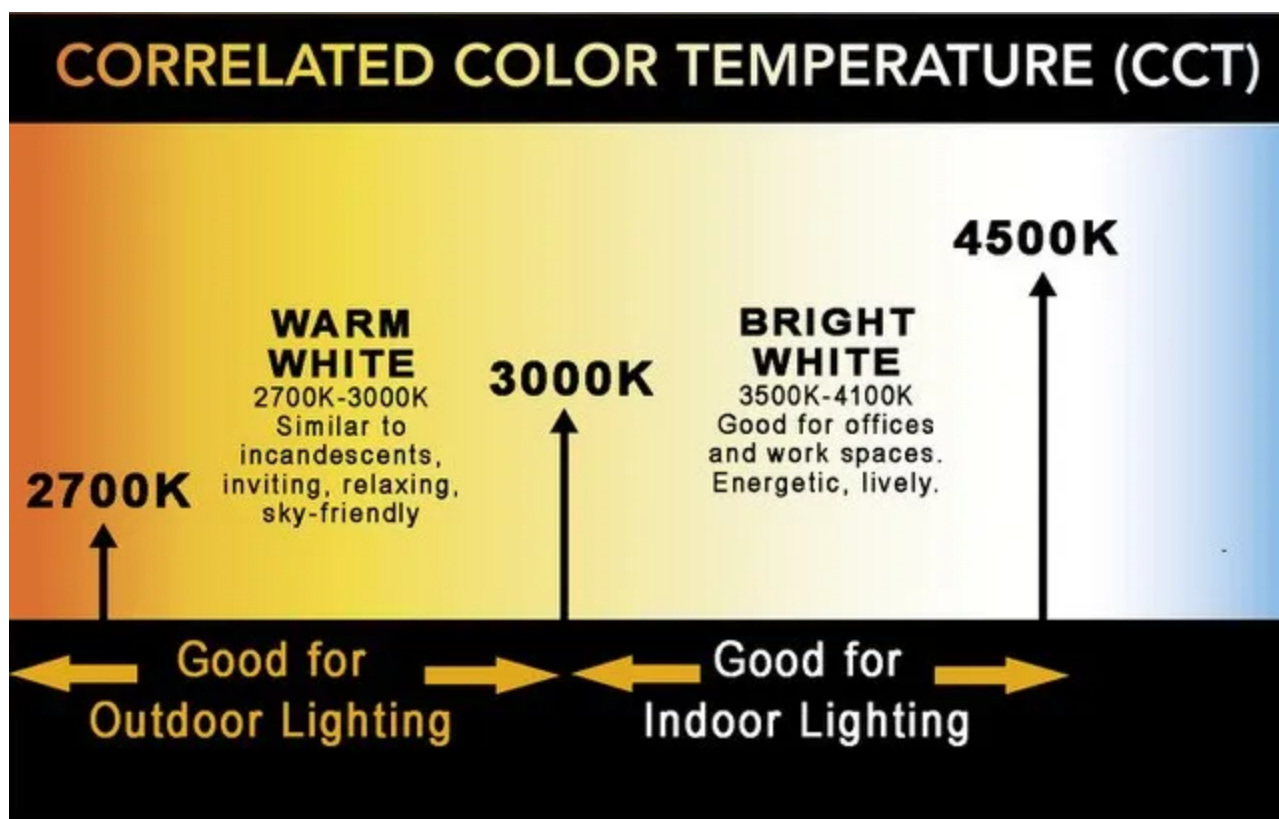


Figure 5. Appropriate uses of correlated color temperature lighting.⁷

Outdoor lighting fixtures in the Reserve will be chosen to minimize the amount of short-wavelength light emitted into the nighttime environment. The Reserve will prefer amber, yellow, and similar colors for lighting, and avoid bright white light wherever practically possible unless a demonstrated need for color rendition exists (Figure 5). In no case shall the correlated color temperature exceed 3000 K (Kelvins).

	Core Area	Periphery Area
Light Fixture Correlated Color Temperature (CCT)	$\leq 3000\text{ K}$ Recommended: $\leq 2400\text{ K}$	$\leq 3000\text{ K}$ Recommended: $\leq 2700\text{ K}$

1.2.3 Lumens per Net Acre Caps

Limiting the amount of lumens ensures light is no brighter than necessary for the purpose at hand. High output levels waste energy and money. In addition, our eyes are incredibly versatile in detecting various levels of light. And while no one can see in complete darkness, it is amazing how little light is needed for our eyes to find their focus.

Brightness of outdoor lighting should be no more than necessary for the task at hand as defined by the Illuminating Engineering Society (IES RP-33-14 & RP-43). The lumens caps

apply only for the **periphery area**. For nonresidential developments, a maximum of 50,000 lumens per net acre is permitted; and 25,000 lumens per net acre for residential. Individual counties, municipalities, or community HOAs are encouraged to set stricter standards, depending on the population density of their respective areas, as long as they do not exceed the above lumens per net acre cap.

	Residential	Nonresidential
Lumens per Net Acre Caps	25,000 lumens per net acre	50,000 lumens per net acre

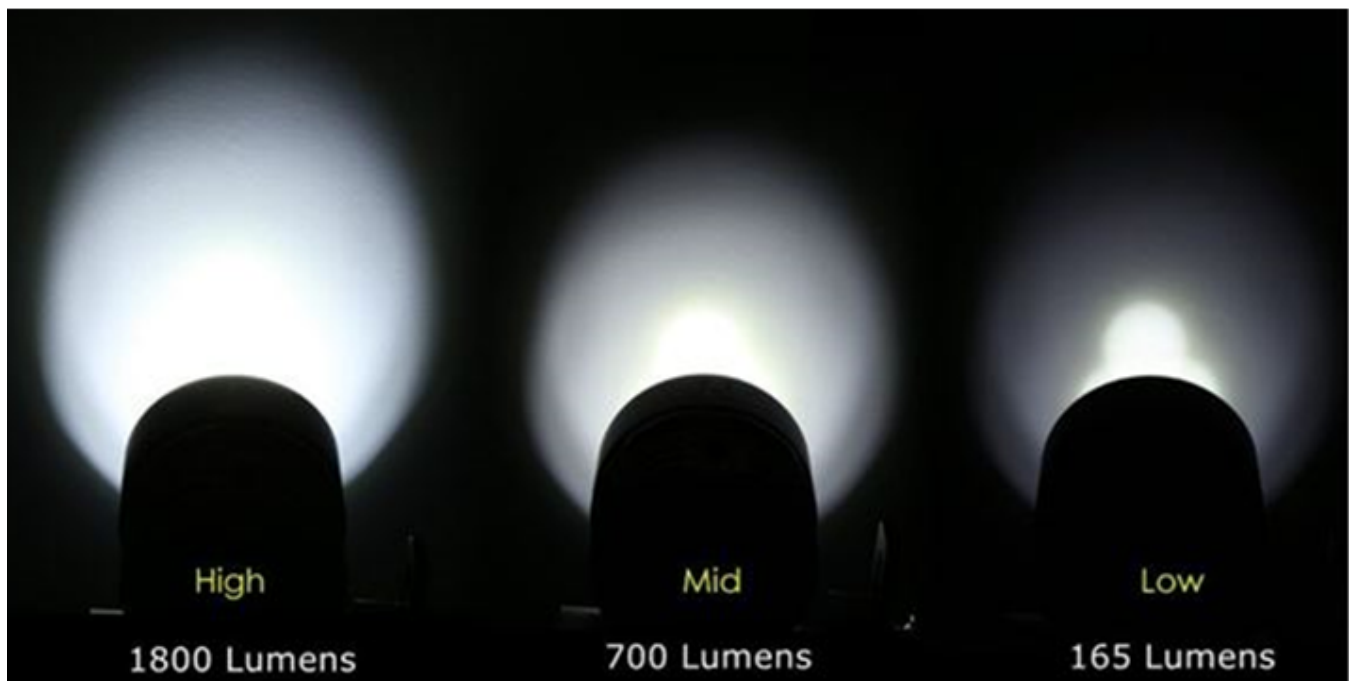


Figure 6. Lights with lower lumens are better at exclusively illuminating the target object or area.⁸

1.2.4 Sign Illumination

Signage illumination should provide proper legibility and reading sight distances for drivers without any significant impact on environmental light trespass or sky glow. Illuminated signs in the **core area** are prohibited. The following standards apply to the **periphery area**:

- a. All permanent signs may be non-illuminated, illuminated by internal, internal indirect (halo), or lit by external indirect illumination. DSI requires that counties and municipalities within the Reserve adopt a curfew for the operation of illuminated signs to be prohibited from one hour after local sunset to one hour before local sunrise (unless strictly required for wayfinding or identification of a business during normal business hours). A jurisdiction may propose an alternative curfew to the SdCDSR Coalition and to DSI as long as it is reasonable and effectively mitigates artificial light at night. Alternatively, lighting zones can

be delineated, which makes it possible to establish different standards according to the nature of the activities related to certain areas, while also reflecting the ambient light levels desired by a community. This allows for greater flexibility in setting curfew hours based on community input.

- i. Exceptions to 1.2.4.a. Lighting curfews are not required for any of the following:
 - 1. Code required lighting for steps, stairs, walkways, and building entrances.
 - 2. Businesses that operate on a 24 hour basis.
- b. 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.
- c. Internally illuminated signs (whether free standing or building mounted) shall be subject to all the following requirements:
 - i. The sign must be constructed with an opaque background and translucent letters and symbols or with a dark colored background and lighter letters and symbols.
 - ii. The luminous surface of an individual sign shall not exceed 200 square feet (18.6 square meters).
 - iii. Sign brightness shall not exceed 100 nits (100 candela per square meter).
- d. Electronic message displays are prohibited in core areas of the Reserve and discouraged in the periphery area. If operated in the periphery area, electronic message displays must comply with the following provisions:
 - i. It is strongly recommended that counties and municipalities within the Reserve adopt a curfew for the operation of electronic message displays to be prohibited from one hour after local sunset to one hour before local sunrise.
 - ii. Messages appearing on electronic displays shall not be displayed for less than (30) seconds and shall require no longer than 0.25 seconds to transition from one message to another. Moving and/or flashing text or images are prohibited.
 - iii. The luminous surface area of an individual sign shall not exceed 200 square feet (18.6 square meters).
 - iv. Display brightness shall not exceed 100 nits (100 candela per square meter).

	Core Area	Periphery Area
Extinction of Illuminated Signs	NA	Extinction of illuminated signs is required between 1 hour after local sunset to 1 hour before local sunrise (unless required for wayfinding or during normal business hours), or other curfew approved by authorized jurisdiction according to established lighting zones
Internal Illumination	NA	<p>Opaque background and translucent letters and symbols or with a dark colored background and lighter letters and symbols.</p> <p>Luminous surface area shall not exceed 200 square feet (18.6 square meters)</p> <p>Sign brightness shall not exceed 100 nits</p>
External Illumination	NA	Externally illuminated signs shall be lit only from the top of the sign, with fully shielded luminaires
Electronic Message Displays	NA	<p>Messages shall not be displayed for less than (30) seconds and shall require no longer than 0.25 seconds to transition from one message to another, moving and/or flashing text or images are prohibited.</p> <p>Luminous surface area shall not exceed 200 square feet (18.6 square meters)</p> <p>Display brightness shall not exceed 100 nits</p>

1.2.5 Adaptive Controls

The use of adaptive controls such as half-night photocells, timers, and motion sensors is encouraged so that light fixtures are not on when no one is there to use them. Lighting controlled by motion-activated sensors that limit the duration of illumination to less than five (5) minutes after activation are exempt from this LMP, but it is strongly encouraged to use the appropriate color temperature and other dark sky friendly lighting practices.

	Core Area	Periphery Area
Lighting Adaptive Control	Mandatory adaptive controls to limit the duration and intensity of outdoor lighting	Recommended adaptive controls to limit the duration and intensity of outdoor lighting

1.2.6 Temporary Lighting

All temporary lighting must follow the principles of dark sky friendly outdoor lighting: be strictly used when and where needed; be no brighter than necessary for a specific task; minimize blue light emissions; and eliminate upward directed light.

Within the **core area**, lighting installations required temporarily for the safe performance of nighttime tasks, such as construction, species inventory and survey, conservation related, or cultural events must be limited in extent and duration. Unshielded, low-intensity seasonal lighting whose use is specific to events or time periods is not allowed within the **core area**.

In the **periphery area**, temporary lighting installations for construction purposes or community events or other purposes must be limited in extent and to the minimum number of nights required to complete the task that the lighting illuminates, while considering lighting impacts on traffic, safety, and the surrounding environment. Unshielded, low-intensity seasonal lighting whose use is specific to events or time periods must also be limited in extent and duration and comply with the policies of the local jurisdiction.

	Core Area	Periphery Area
Construction or Survey Lighting	Limited in extent and duration	Limited in extent and duration
Event Lighting	Limited in extent and duration	Limited in extent and duration
Seasonal Lighting	NA	Limited in extent and duration

1.2.7 Heritage, Architectural, Landscape, and String Lighting

Lighting of monuments and historical buildings, architectural, and landscape lighting is prohibited in the **core area** of the Reserve.

In the **periphery area**, the highlighting of historical buildings, architecture, and landscaping must be done with a moderate usage of light in order to reveal the subject with minimal impact to the surrounding environment. All lighting must have a luminous flux below 500 lumens and a CCT no greater than 3000 K (preferably ≤ 2700 K). If used, spotlights embedded in the ground must be designed in such a way that their resulting lighting cones are contained within the monuments they are aimed at highlighting, i.e. there should be no significant fraction of the flux that escapes to the sky.

	Core Area	Periphery Area
Heritage Lighting	Not allowed	Must be ≤ 500 lumens Must be ≤ 3000 K Recommended extinction of lighting between 12:00 am and 6:00 am
Architectural Lighting	Not allowed	Must be ≤ 500 lumens Must be ≤ 3000 K Recommended extinction of lighting between 12:00 am and 6:00 am
Landscape Lighting	Not allowed	Must be ≤ 500 lumens Must be ≤ 3000 K Recommended extinction of lighting between 12:00 am and 6:00 am
String Lighting	Not allowed	Must be no brighter than 50 lumens per linear foot OR

		2,000 lumens in residential areas and 4,000 lumens in commercial areas in aggregate.
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1.2.8 Outdoor Sports Lighting

Outdoor sports lighting is not allowed in the **core area** of the Reserve.

In the **periphery area**, outdoor sports lighting must be done with best management practices to limit the amount of skyglow, prevent light trespass to neighboring properties, and to limit the impact of lighting on the nighttime environment. The following requirements must be respected by outdoor sport lighting installations within the **periphery area**:

- a. Lighting at public and private outdoor sports facilities, including but not limited to playing fields, arenas, tracks and swimming pools will be shielded to the greatest practical extent to reduce glare, safety hazards, light trespass, and light pollution.
- b. Lighting will provide levels of illuminance that are adjustable according to the task, allowing for illuminating levels not to exceed nationally recognized Illuminated Engineering Society standards according to the appropriate class of play, as well as for lower output during other times, such as when field maintenance is being actively performed.
- c. Lighting shall be provided exclusively for illumination of the surface of play and adjacent viewing stands, and not for any other application.
- d. Lighting must be extinguished within one (1) hour of the end of active play. The outdoor sports facility lighting shall be fitted with mechanical or electronic timers to prevent lights from being left on accidentally overnight.

	Core Area	Periphery Area
Shielding	NA	Lighting will be shielded to the greatest practical extent
Illuminance	NA	Illumination levels will not exceed nationally recognized IES standards according to the appropriate class of play
Extinction Time	NA	Within one (1) hour of the end of active play

Adaptive Controls	NA	All new outdoor sports facilities will be fitted with mechanical or electronic timers
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1.2.9 Agricultural Lighting

Agricultural practices are not allowed in the **core area**, thus these standards do not apply to the core.

In the **periphery area**, outdoor lighting associated with discrete farming practices and agricultural use that is a generally accepted, reasonable and prudent method for the operation of the farm or ranch is allowed. Farmers and ranchers should be encouraged to follow the dark sky friendly lighting principles of the LMP, and only use lighting that is limited in extent and duration: it is strictly used when and where needed, be no brighter than necessary for a specific task, minimizes blue light emissions; and eliminates upward directed light.

To prevent excessive lighting and to prevent glare from the public roadway, on other public ways and onto adjoining property, and to reduce atmospheric light pollution, all structures with translucent panels/roofing (including buildings, greenhouses, and hoop houses) requiring artificial lighting at night for indoor cultivation shall either turn off lights once plant light requirements are met, and/or have internal shielding (such as blackout curtains) to prevent glare and light escape from the structure's wall and/or roof.

	Core Area	Periphery Area
Discrete Farming Practices	NA	Harvesting, spotlighting, and other temporary farming practices are allowed, with lighting limited in extent and duration
Greenhouses and Buildings	NA	<p>All structures with translucent panels/roofing (including buildings, greenhouses, and hoop houses) used for indoor cultivation shall have internal shielding (such as blackout curtains)</p> <p>Duration of internal shielding and extent (percent</p>

		coverage) must be determined by appropriate jurisdiction
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1.2.10 Visitor Lighting in the Core Area

Lighting produced by the Reserve visitors within the **core area** shall be limited in such a way as to provide for reasonable use while maintaining the natural character of the park, national forest, and wilderness areas, while avoiding the creation of nuisance for other visitors. All lighting shall be restricted in intensity and extent to provide for the legitimate needs of visitors. Inappropriate, high-intensity light painting of the Reserve landscapes, the use of searchlights, and similar uses of outdoor lighting by visitors is prohibited. In the core area, the usage of red light is recommended.

1.2.11 Exemptions

The following types of outdoor lighting installations shall be permitted in the **core and periphery areas** and are not subject to the other provisions of this LMP:

- Lighting installations required by the relevant local, regional or national jurisdictions.
- Lighting installations required temporarily for the safe performance of nighttime tasks, such as for emergency conditions.
- Outdoor lighting controlled with motion-activated switches limiting the duration of illumination to less than five (5) minutes after activation.
- Outdoor lighting fixtures existing or legally installed prior to the adoption of the Lighting Management Plan and standard repairs, however, new lighting and replacement lighting will be subject to the provisions within the LMP or applicable municipal or county ordinance.

Definitions

(Derived from the 2011 Joint IDA - IES Model Lighting Ordinance (MLO))⁹

<i>Architectural Lighting</i>	Lighting designed to reveal architectural beauty, shape and/or form and for which lighting for any other purpose is incidental.
<i>Curfew</i>	A time defined by the authority when outdoor lighting is reduced or extinguished.
<i>DSI</i>	Dark Sky International.
<i>Emergency conditions</i>	Generally, lighting that is only energized during an emergency; lighting fed from a backup power source; or lighting for illuminating the path of egress solely during a fire or other emergency situation; or, lighting for security purposes used solely during an alarm.
<i>Fully Shielded Luminaire</i>	A luminaire constructed and installed in such a manner that all light emitted by the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the luminaire's lowest light-emitting part.
<i>Glare</i>	Lighting entering the eye directly from luminaires or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.
<i>IESNA</i>	Illuminating Engineering Society of North America.
<i>Lamp</i>	A generic term for a source of optical radiation (i.e. "light"), often called a "bulb" or "tube". Examples include incandescent, fluorescent, high-intensity discharge (HID) lamps, and low pressure sodium (LPS) lamps, as well as light-emitting diode (LED) modules and arrays.
<i>Landscape Lighting</i>	Lighting of trees, shrubs, or other plant material as well as ponds and other landscape features.
<i>Light Pollution</i>	Any adverse effect of artificial light including, but not limited to, glare, light trespass, sky- glow, energy waste, compromised safety and security, and impacts on the nocturnal environment.
<i>Light Trespass</i>	Light that falls beyond the property it is intended to illuminate.
<i>Lighting</i>	"Electric" or "man-made" or "artificial" lighting.
<i>Lighting Zone</i>	An overlay zoning system establishing legal limits for lighting for particular parcels, areas, or districts in a community.
<i>Lumen</i>	The unit of measure used to quantify the amount of light produced by a lamp or emitted from a luminaire (as distinct from "watt," a measure of power consumption). There are approximately 10 lumens per footcandle.
<i>Luminaire</i>	The complete lighting unit (fixture), consisting of a lamp, or lamps and ballast(s) (when applicable), together with the parts designed to distribute the light (reflector, lens, diffuser), to position and protect the lamps, and to connect the lamps to the power supply.
<i>New lighting</i>	Lighting for areas not previously illuminated; newly installed lighting of any type except for replacement lighting or lighting repairs.

<i>Nit</i>	A unit of measurement that describes how bright a television, smartphone, computer monitor, laptop screen, or another type of display is. The higher the number of nits, the brighter the display. One nit is equal to one candela (one candlepower) per square meter (1cd/m ²).
<i>Outdoor Lighting</i>	Lighting equipment installed within the property line and outside the building envelopes, whether attached to poles, building structures, the earth, or any other location; and any associated lighting control equipment.
<i>Partly shielded luminaire</i>	A luminaire with opaque top and translucent or perforated sides, designed to emit most light downward.
<i>Repair(s)</i>	The reconstruction or renewal of any part of an existing luminaire for the purpose of its on-going operation, other than relamping or replacement of components including capacitor, ballast or photocell. Note that retrofitting a luminaire with new lamp and/or ballast technology is not considered a repair and for the purposes of this ordinance the luminaire shall be treated as if new. "Repair" does not include normal relamping or replacement of components including capacitor, ballast or photocell.
<i>Replacement Lighting</i>	Lighting installed specifically to replace existing lighting that is sufficiently broken to be beyond repair.
<i>Seasonal lighting</i>	Temporary lighting installed and operated in connection with holidays or traditions.
<i>Sign</i>	Advertising, directional or other outdoor promotional display of art, words and/or pictures.
<i>Sky Glow</i>	The brightening of the nighttime sky that results from scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Skyglow is caused by light directed or reflected upwards or sideways and reduces one's ability to view the night sky.
<i>Temporary lighting</i>	Lighting installed and operated for a short period of time.
<i>Translucent</i>	Allowing light to pass through, diffusing it so that objects beyond cannot be seen clearly (not transparent or clear).
<i>Unshielded Luminaire</i>	A luminaire capable of emitting light in any direction including downwards.

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- ⁹ Model Lighting Ordinance (MLO) with User’s Guide – The IES Webstore. (n.d.). *Store.ies.org*.
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INTERNATIONAL DARK-SKY ASSOCIATION

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*TO PRESERVE AND PROTECT THE NIGHTTIME ENVIRONMENT AND OUR HERITAGE OF DARK SKIES THROUGH
ENVIRONMENTALLY RESPONSIBLE OUTDOOR LIGHTING*



INTERNATIONAL DARK SKY RESERVES

International Dark Sky Reserve Program Guidelines

June 2018

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DEFINITION OF AN INTERNATIONAL DARK SKY RESERVE

An International Dark Sky Reserve (IDSR) is a public or private land of substantial size (at least 700 km², or about 173,000 acres) possessing an exceptional or distinguished quality of starry nights and nocturnal environment, and that is specifically protected for its scientific, natural, educational, cultural heritage, and/or public enjoyment.

The IDSR consists of two regions:

- 1) A “core” area meeting the minimum criteria for sky quality and natural darkness, and
- 2) A “peripheral” or “buffer” area that supports dark sky values in the core and receives similar benefits.

The IDSR is formed through a partnership of landowners and/or administrators that recognize the value of the natural nighttime environment through regulations, formal agreements, and long term planning. The core and the peripheral zone together are referred to collectively as the “Reserve” and “IDSR” in this document.

GOALS OF DARK SKY RESERVE CREATION

- To identify and honor public or private lands and their surrounding communities for exceptional commitment to and success in implementing the ideals of dark sky preservation
- To promote eco- and astro-tourism
- To promote protection of nocturnal habitats, public enjoyment of the night sky and its heritage, and/or areas ideal for professional and/or amateur astronomy
- To encourage land administrators, surrounding communities and private interests to identify dark skies as a valuable resource in need of proactive protection
- To provide international recognition for such sites
- To encourage other locations to become environmental leaders on dark sky issues by communicating the importance of dark skies and by providing an example of what is possible with proper stewardship

DESIGNATION BENEFITS

Achieving an IDSR designation brings recognition of the efforts made by any public and/or private organizations protecting the night skies of the identified Reserve area. It

encourages and ensures the sustainability of dark skies conservation actions already undertaken in the area; moreover, it enhances resident and visitor awareness of environmental stewardship and responsibility.

Designation as an IDSR entitles the core and its surrounding communities to display the IDA logo in official publications and promotions and retain the use of this logo by other groups within the community when identifying the area itself¹. IDA will promote and highlight ongoing Reserve efforts to protect night skies and maintain pages on its website identifying and describing all IDSRs.

ELIGIBILITY

To be eligible for consideration as an IDSR, a candidate site must meet all of the following requirements:

- 1) The core of the proposed IDSR must be a public or private land protected for scientific, natural, educational, cultural, heritage and/or public enjoyment.
- 2) Private inholdings and lands similarly situated within the core zones of Reserves are formally exempt from regulation under the terms of this document, but applicants are encouraged to obtain voluntary compliance from private landowners.
- 3) The core zone boundaries must be drawn according to, and consistent with, the following principles:
 - A) A core area does not have a minimum area requirement but must provide sufficient area to meet the outreach and public access requirements described in this document.
 - B) The proposed core area boundary may take any shape and may follow logical or natural geographic features.
 - C) The core need not be a single, contiguous land; multiple cores may be defined, but this approach must be justified in the application document.

¹ For example, an organization or community can refer to itself “located in Grand View Dark Sky Reserve”.

- D) If the core includes a publicly protected area, such as a national or regional park, it must strive to fully encompass the boundaries of that area.
- 4) The peripheral zone boundaries must be drawn according to, and consistent with, the following principles:
- A) The proposed peripheral zone boundary must be singular, contiguous, and completely enclose the core zone. It may take any shape and may follow logical or natural geographic features.
 - B) The peripheral area must encompass a minimum of 700 km² (270 mi² or 173,000 acres) around the core, roughly equivalent to a circle of 15-km/9.3-mile radius, **OR** a land area sufficient to mitigate 80% of current and expected future light pollution threats to the core.
 - C) Large areas of open water, such as oceans, bays, and larger lakes, do not count toward the 700 km² / 80% requirement.

The actual area of the peripheral, or buffer zone, may be reduced or increased by the IDA Dark Sky Places Committee (DSPC) on a case-by-case basis to ensure future protection of the core.

- 5) The boundaries of neither core nor periphery must not be arbitrarily drawn to omit areas that would increase the difficulty of achieving IDSR status, but must instead embrace these areas as an opportunity for improvement. If an irregular shape for either is chosen, it must be justified in the text of the application.
- 6) The core must provide an opportunity for regular public nighttime access, with or without supervision. A portion of designated land may meet this requirement, or access must be available for a fraction of the length of the night. In some cases, such as when working with areas that protect endangered wildlife, archeological sites, or other sensitive resources, this requirement may be adjusted.
- 7) The core must provide an exceptional dark sky resource, relative to the communities and cities that surround it.

MINIMUM REQUIREMENTS FOR ALL RESERVES

- 1) A quality comprehensive Lighting Management Plan (LMP) should be adopted by a sufficient number of communities within the entire IDSR (core and periphery) corresponding to at least 80% of population **AND** 80% of designated area of protection. The regulations contained in the LMP must apply to all private **AND** public land-owners within the area of protection. Some exceptions may apply but are individually subject to IDA approval. Minimum standards are described below in the section titled “Lighting Management Plan Guidelines”.²
- 2) Typical nighttime conditions characterizing the core must be consistent with or exceed the following criteria:
 - A) The Milky Way is readily visible to the unaided eye;
 - B) There are no nearby artificial light sources yielding significant glare; and
 - C) Any light domes present are dim, restricted in extent, and close to the horizon. These conditions correspond approximately to a visual-band zenith luminance of 21.2 magnitudes per square arcsecond (0.4 mcd/m²) and a naked-eye limiting magnitude (NELM) of +6.

In order to substantiate the sky quality, measurements of the night sky brightness at the zenith must be made with suitable instruments, or the NELM must be estimated by a qualified observer. Further, panoramic nighttime photography of the horizon must be included in order to substantiate the number and extent of light domes visible from the site. Measurements of night sky brightness must be distributed over a sufficiently long enough period of time in order to average out fluctuations over timescales ranging from hours to seasons in length.

Applicants should discuss their measurement protocol with the International Dark Sky Places Program Manager and submit all data necessary to substantiate these conditions.

Any designated IDSP that no longer meets these conditions but documents a visual-band zenith luminance from 20.0 to 21.19 magnitudes per square arcsecond or a naked-eye limiting magnitude (NELM) no higher than +5 will be included in a List of Endangered IDSP Sites published on the IDA website. IDA reserves the right to duly

² Lighting required by law under the authority of any entity having higher legal jurisdiction over either the core or peripheral zones may be formally exempted from the requirements of this section.

suspend or revoke the IDSR designation of a Reserve with night sky quality that falls below a visual-band zenith luminance from 20.0 to 21.19 magnitudes per square arcsecond or a naked-eye limiting magnitude (NELM) of +5.

- 3) Evidence of community commitment to dark skies and quality outdoor lighting, as shown by at least two-thirds (67%) of existing outdoor lighting fixtures within the core conforming to the LMP at the time of application (or an alternative fraction approved by the DSPC).
- 4) A lighting inventory and a plan to bring 90% of outdoor lighting in the core into compliance with the Reserve's LMP within five (5) years of receiving an IDSP designation, as well as a written commitment to bring the core into 100% compliance within ten (10) years of designation.
- 5) A measurement program must be maintained either by the core managing agency, communities, private landowners or other public or private organization to follow the evolution of light pollution in the core and assure that the night sky quality does not degrade. Applicants are encouraged, but not required, to submit their measurements to the citizen science projects such as My Sky At Night (myskyatnight.com) and Globe At Night (globeatnight.org).
- 6) A description of current and suspected future threats to dark skies over the core zone, and a plan to address these threats.
- 7) Communities must have a number of examples of conforming lighting installations proportional to the size of the population they serve, both on roadways **AND** on different private sites (industries, stores, public services, etc.):
 - A) Each participating municipality (excluding businesses, residences, and partners without installed lighting) should have completed **at least one** highly visible demonstration project with night sky friendly lighting consisting of at least 10 lighting fixtures for each 5000 residents; **AND/OR**
 - B) Approximately 10% of fixtures outside of the core must be retrofitted or brought into compliance with the appropriate regulation. This percentage does not include fixtures that were compliant upon the initial lighting survey, but rather must show active motivation of the community to make changes through the form of retrofits and/or appropriate physical changes to the current fixtures' form. Such changes may include, but are not limited to, installation of adaptive controls such as dimmers and motion sensors.

- 8) Participating communities must have a program, either through education, economic incentives, permitting or regulation, to encourage all new outdoor lighting fixtures to conform to the relevant regulation or guidelines for night sky friendly lighting.
- 9) The Reserve's commitment to public education is demonstrated by all of the following:
 - A) The importance of dark skies, natural nighttime darkness, and the benefits of quality lighting should be part of Reserve interpretation/outreach programs. If the Reserve typically provides interpretive programs, then dark skies must be one of the central themes communicated through on-site interpretation³. If interpretive programs are not typically offered, then publications, flyers, press releases, media, or other outreach are appropriate substitutes.
 - B) Dedicated dark skies programming must occur at least four times per year; however, more frequent events are preferable. These events may highlight the value of natural nighttime darkness in any appropriate way⁴.
- 10) Acknowledgement of the protected area by government or regulatory agencies situated higher than community level (county/province/etc.) with the perspective that dark skies are an important scientific, natural, cultural, and/or scenic resource value as shown by the inclusion of appropriate language in official documents for long term planning⁵. Communities within the IDSR will receive a certificate verifying the community as a part of the IDSR upon request. Those who wish to erect a sign must address a letter to IDA referring to the community as a part of the IDSR and giving specific examples of their engagement (lighting fixture replacement, outreach program, etc.).
- 11) Once established, the Reserve must erect and maintain appropriate signage indicating the International Dark Sky Reserve designation along a roadway entrance, along a footpath entrance if no roadway exists, or a visitor contact center. If approved by IDA, language as an alternative to "International Dark Sky Reserve" may

³ 'Dark skies education' refers not only to astronomy education but also education about wildlife, energy efficiency, safety, and human health. Astronomy education events such as star parties only count as 'dark skies education' if they prominently feature material about dark skies and outdoor lighting.

⁴ Examples include cultural or historic value, importance to wildlife, astronomical or stargazing events.

⁵ Examples of such documents include General Management Plans, Resource Management Plans, and Facility Development Plans. Consult IDA staff as to whether a particular type of management document meets this requirement.

appear on the signage and in Reserve communications regarding the IDSR status. Once the sign is erected a photograph documenting it must be taken and sent to IDA for records along with a description of its location.

- 12) The Reserve will submit an annual report to IDA by 1 October of each year detailing activities and progress towards fulfilling IDA IDSR goals during the previous year. The report serves to document that the Reserve continues to meet minimum program requirements; sustains partnership, outreach, and interpretive efforts; and makes adequate progress toward at least 90% compliance with LMPs. The report should include dates and brief descriptions of interpretive events, lighting retrofit projects, community outreach, etc. New measurements of the night sky brightness in the core must be obtained and included in the report. It should also provide information on any new lands acquired since designation and/or the most recent prior report, as well as any potential future sale of land that may result in reassessment of IDSR status (see “Sale or Transfer of Land Ownership,” below). Samples of printed materials and press articles should also be included.

Electronic submission of these documents is required in Microsoft Word or PDF format. If the annual report is not sent in a timely fashion, IDA may suspend the IDSR status until the annual reporting requirements have been met.

A Reserve is exempt from the annual reporting requirement in the calendar year in which the IDA designation was awarded. If the designation is received after 1 October of a given calendar year, the Reserve’s first annual report to IDA will be due on 1 October of the following calendar year.

LIGHTING MANAGEMENT PLAN

The LMP must contain at least the following minimum provisions:

- 1) The written policy meets or exceeds applicable agency or departmental policies regarding outdoor lighting and conforms to all local, regional, and national laws.
- 2) The use of outdoor light at night is only prescribed when it is strictly needed, where it is needed, and in the appropriate amount for a specific task. The purpose of outdoor light that is allowed under the policy should be specifically to ensure public safety.

- 3) All outdoor lighting fixtures >500 initial lamp lumens⁶ must be fully shielded⁷ and make appropriate use of timers and motion sensors. Lighting of ≤500 initial lamp lumens may be left unshielded for special purposes, such as historical preservation. The approved special uses must be stated in the LMP. IDA will scrutinize these uses to ensure that core lighting is a suitable example of quality lighting for the public and protects the nighttime environment to the maximum practical extent. IDA may request additional descriptions, photographs, or drawings of these lights. These lights are not exempt from the other lighting guidelines, and must still be designed in such a way to minimize impact to the nighttime environment. Lighting controlled by motion-activated sensors and which limit the duration of illumination to less than five (5) minutes after activation is exempt from regulation by the LMP.
- 4) Lighting must be chosen to minimize the amount of short-wavelength light emitted into the nighttime environment. The lighting policy must restrict lighting in this respect according to one of the following prescriptions:
 - A) The correlated color temperature (CCT) of lamps must not exceed 3000 Kelvins;
OR
 - B) Allowed lighting must not emit more than 25% of its total spectral power at wavelengths < 550 nanometers; **OR**
 - C) The scotopic-to-photopic (S/P) ratio of allowed lighting must not exceed 1.3.These metrics may be found in manufacturer data sheets for lighting products.
- 5) Visitor activities with respect to the introduction of unnecessary artificial light at night into the core environment must be regulated. This must include reasonable limits on the lighting of camping equipment and recreational vehicles, as well as a general prohibition of inappropriate “light painting,” the use of searchlights, and similar activities. Note that this requirement is in no way intended to compromise visitor safety; lighting required in emergency situations may be exempted from compliance.

⁶ “Initial lamp lumens” is defined as the number of lumens of light emitted by a lamp when new and not counting any depreciation of output due to the age of the lamp. This information can be found in manufacturer data sheets.

⁷ “Fully shielded” is defined such that the light source is screened and its light directed in such a way that none is emitted above the horizontal plane passing through the lowest light-emitting portion of a fixture.

- 6) Illuminated signs⁸ must be regulated as follows:
 - A) Operation is prohibited from one hour after local sunset to one hour before local sunrise (unless strictly required for wayfinding or identification of concessions in the Park during normal business hours); **AND**
 - B) Displays must be single-color on a black background; **AND**
 - C) Luminance must not exceed 100 nits (100 candela per square meter); **AND**
 - D) The luminous/illuminated surface area of an individual sign must not exceed 200 square feet (18.6 square meters).
- 7) A policy governing the installation of temporary lighting in the core requiring that any such installation will adhere to the LMP to the greatest possible extent and whose duration will be limited to the shortest possible time.

LIGHTING INVENTORY

A lighting inventory is a formal audit of outdoor lighting. It is used to determine rates of compliance with the LMP within the IDSR core and to identify lighting equipment in need of rehabilitation through retrofitting or replacement. A complete inventory of outdoor lighting in the core is a requirement for IDSR status, and it must be accompanied by a plan under which lighting in the core will be brought into compliance with the LMP under the terms specified in “Minimum Requirements for All Reserves” (above).

The following must be taken into consideration when collecting and reporting lighting inventory data:

- 1) When there are numerous outdoor lights it is acceptable to group lights by facility or area. Whether the fixtures are fully shielded, are special purpose fixtures under 500 initial lamp lumens, and the intended lighting application must be noted for each fixture or group of fixtures.
- 2) Daytime photographs or manufacturer diagrams of each fixture type should also accompany the inventory.

⁸ “Illuminated sign” is defined as any informational or advertising sign that is illuminated by either internal or external means. Descriptive terms are adjusted here according to the type of illumination.

- 3) Inoperable fixtures, including those physically disconnected from power supplies, must be inventoried. Only those physically disconnected from power supplies may be counted as compliant for the purpose of determining the rate of LMP compliance.

The following is a sample table from portion of a lighting inventory:

Location	Fixture	Fully-Shielded?	Operable?	Special Purpose <500 lumens	Application	Conformity with LMP
Visitor Center	12 fixtures on 14' pole, 70 W HPS	YES	YES	NO	Parking log, timer off at 10pm	YES
	2 door lights, 100 W MH	YES	NO	NO	Building egress	YES
	6 bollard (post) lights, 32 W CFL	NO	YES	NO	Walkway	NO – see plan
Restrooms	2 carriage style lights at doorways, 40 W incandescent	NO	YES	YES	Historic Preservation, egress	YES
Maintenance Yard	6 wall packs, 250 W MH	NO	YES	NO	Occasional night operations	NO – see plan

PROVISIONAL STATUS

In some cases, a location interested in becoming an International Dark Sky Reserve may lack the resources to make a successful application. Provisional status recognizes the location's ongoing work to become an IDSR and is intended to be used as leverage to enable the necessary lighting upgrades or retrofits.

Provisional status expires after three (3) years. At any time before the end of its Provisional status, a Reserve may reapply for full status. Material submitted for the removal of Provisional status may be an addendum to the initial application as long as the material includes a current assessment of night sky quality, goals, outreach, and programs listed in the original application.

A Reserve may apply for Provisional status if all of the following conditions are met:

- 1) A Lighting Management Plan has been approved by the core zone managing agency;
- 2) Minimum sky quality criteria are satisfied;
- 3) An inventory of outdoor lighting in the core; and
- 4) Appropriate outreach efforts have been undertaken.

Applicants requesting Provisional status should send a nomination package to IDA that contains at least the following information:

- Initial sky quality measurements
- Documented intent to create and support creation of an IDSR
- Three partners (municipalities, parks, organizations, etc.) have documented intent to support an IDSR
- A Lighting Management Plan
- An action plan describing how the aspiring Reserve will meet minimum requirements

IDSR APPLICATION PROCESS

NOMINATION

The nomination may be initiated by a qualified IDA member nominator⁹. Alternately, the Reserve may join IDA as an organizational member and self-nominate. Nominators are encouraged to correspond with IDA staff and the Reserve throughout this process.

⁹ A qualified IDA member nominator is an IDA member in good standing who has personally reviewed a Reserve's outdoor lighting and its commitment to the protection of dark night skies.

LETTERS OF SUPPORT

An official letter must be sent to IDA consenting to the IDSR nomination from the core administrator or manager. Official letters of support from the communities, counties, provinces or other jurisdictions to which the lands within the IDSR are subject that confirming their long-term engagement and commitment towards the creation of the IDSR must also be included with the nomination.

STEPS FOR APPLICANT

- 1) Make initial contact with IDA by phone or email to discuss the process and receive recommendations, followed by continued communications to update IDA staff on progress and receive additional recommendations.
- 2) Designate a formal point of contact (POC) person, such as a project manager, and provide their telephone number, address and email information to IDA staff. Before and after designation, any changes to this POC, or their information, must be transmitted to IDA immediately in order to ensure continuous communication at all times.
- 3) Obtain a letter of nomination from a qualified IDA member nominator, as well as a supporting letter from the core zone leadership, such as a park superintendent or administrator. Solicit additional letters of support from communities in the peripheral zone.
- 4) Upon completion, sends the application to IDA staff for review of the document at least one month before the chosen submission deadline date. The application must be transmitted electronically to IDA in PDF and/or Microsoft Word format. IDA staff will confirm that the application is complete and ready for submission or return it with specific suggestions for improvements.
- 5) Submit in plenty of time for IDA staff to review and prepare your application to make the bi-monthly deadline that you prefer, as found on the IDA website. Requests to rush applications will **NOT** be honored; planning ahead is essential if the Reserve wishes to meet a specific deadline.

TO BE INCLUDED IN AN IDSR SUBMISSION

- 1) Map(s) of the area to be designated clearly showing the core and periphery as well as locations of communities within the Reserve. The map must indicate the legal boundaries of the protected land forming the core zone.
- 2) Letter of nomination from a qualified IDA member nominator.
- 3) Letter of nomination consent from the core managing agency.
- 4) Any core zone management documents supporting dark skies and/or the natural nighttime environment as a valued resource.
- 5) Documentation of sky quality, light pollution measures, satellite images, maps, photographs, or other evidence that demonstrates the noteworthiness of the core's dark-sky resource. Measurements of night sky brightness must be obtained using IDA-approved night sky brightness measuring equipment. A sufficient number of sites within the core must be measured to clearly establish the significance of the resource with emphasis on the areas of highest visitation. Data included in the application must contain an updated night sky brightness survey of the core completed no more than two years before the application's submission along with any other relevant information.
- 6) Lighting Management Plan.
- 7) Documentation signed by core administrator showing a lighting inventory of the core and a plan to bring 90% of outdoor lighting into compliance with the Reserve's LMP within five years; as well as a signed commitment to bring the core into 100% compliance within ten (10) years.
- 8) Any documentation of the significance of the core beyond its dark night skies¹⁰.
- 9) Documentation or description of restoration projects (e.g. community outreach, lighting retrofits, etc.) currently in action.
- 10) Description of interpretive programming or interpretive products related to dark skies/natural darkness, and any related examples of successful education efforts (photos, documentation of student projects, etc.)
- 11) A description of future plans related to the Dark Sky Reserve.
- 12) Proposed alternative wording for IDSR (e.g. Dark Sky Wilderness, Dark Sky Refuge,

¹⁰ Examples include site historical research, importance to indigenous nocturnal wildlife, cultural significance, etc.

etc.), if desired, along with a justification for the request.

Examples of successful past applications are available on the IDA website.

IDA REVIEW PROCESS

Six (6) application submission deadlines occur in each calendar year, commencing in January and continuing every other month. Before the final application is submitted, it is strongly recommended that the Reserve be in regular communication with the International Dark Sky Places Program Manager to perfect the application before the next application deadline.

IDA staff regularly forwards applications to the DSPC for review. Endorsement of applications by the DSPC is by a 2/3 supermajority vote; otherwise, the DSPC will return applications with reasons for denial of an endorsement and specific recommendations for improvement.

If endorsed, the applicants will be notified and the International Dark Sky Places Program Manager will present the application to the IDA Board of Directors (BOD). A ten (10)-calendar-day waiting period then commences during which the BOD has the right to deny IDSP status should it determine that any problems with the application exist.

If the BOD registers no objection within the ten-calendar-day waiting period, the IDSP designation is considered immediately awarded by IDA. The Reserve has the right to choose when the designation is made public, but it must organize the announcement to be made at the same time as the IDA public notice unless otherwise agreed by both parties. Along with the announcement notice, IDA will publish the Reserve's application on its website; by submitting the application, the Reserve agrees in advance that the application will be made publicly available.

If an application is denied final approval by the IDA BOD, a letter will be sent to the applicant outlining elements of the application that need improvement, along with specific recommendations for ways to remedy any problems the BOD identifies. Applications may be resubmitted for future consideration after remediation is complete. Resubmitted applications will be considered without prejudice.

IDA realizes that certain circumstances surrounding an IDSR application may cause some potential authors of letters of support (or opposition) to feel uneasy about publicly declaring their opinions about the IDA designation. In the interest of providing the Dark Sky Places Committee with as full a picture of community sentiment about applications as possible, it is possible for some letters to be suppressed from online publication if it is felt that making the letters publicly available will subject their authors to

retaliation or harassment. A prospective IDSR seeking this protection for letter writers must make a formal written request. The International Dark Sky Places Program Manager must approve suppression of publication of any part of an application. Note that suppression of online publication does not prevent either the DSPC or the BOD from reading all submitted letters.

POST-DESIGNATION REVIEW AND MAINTENANCE

The IDSR designation is not awarded in perpetuity. Rather, it is subject to regular review by IDA and possible revocation if the minimum program requirements are not maintained. More details may be found in the “Reassessment of IDSR Designations” section below.

To ensure that Reserves remain exemplary in their protection and restoration of the natural nighttime environment, IDA will periodically reevaluate each site in the International Dark Sky Places Program. This is done to confirm that the Reserve continues to meet the minimum requirements and is making adequate progress toward LMP compliance goals outlined in this document.

Each designated IDSR must submit to IDA a written report of its activities related to the maintenance of its designation on or before 1 October of each calendar year. The report is a short (typically less than ten-page) synopsis of the Reserve’s activities and initiatives during the intervening year¹¹. The report should include dates and brief descriptions of any interpretive events, lighting retrofit projects, outreach efforts, etc. Samples of printed materials and press articles should also be included.

Annual reports should not be burdensome to produce, as they are intended as a compilation of information accumulated throughout the year. Annual reports and supporting documentation must be submitted electronically to the International Dark Sky Places Program Manager in either PDF or Microsoft Word format. If the annual report is not received by IDA in a timely fashion, IDA may suspend the site’s IDSR status until the annual reporting requirement has been met (see the following section). On or about 1 August and 1 September of each year, the International Dark Sky Places Program Manager will remind local contacts at each IDSR of the pending 1 October annual report submission deadline.

A designated IDSR is exempt from the annual reporting requirement in the calendar year in which the IDA designation was awarded. If the designation is received after 1

¹¹ Examples of acceptable annual reports are available on the individual IDSR pages on the IDA website.

October of a given calendar year, the IDSR's first annual report to IDA will be due on 1 October of the following calendar year.

REASSESSMENT OF IDSR DESIGNATIONS

An IDSR designation is intended to represent the beginning of an ongoing relationship between the Reserve and IDA to our mutual benefit. IDA will periodically review the nature of that relationship in the required annual reports. From time to time, IDA also receives comments from visitors to Reserves that raise concerns about the veracity and timeliness of information provided to IDA by IDSRs. IDA may, at its discretion, investigate claims in which it is alleged that IDSRs are not adhering to commitments made to IDA and the public in their applications to the Program. This section details the IDA procedure for carrying out such investigations, and the rights of IDSRs in such matters.

INVESTIGATION AND DUE PROCESS

An allegation of impropriety concerning any of the elements of participation in the Program outlined in this document is subject to IDA investigation and potential disciplinary action including temporary suspension and/or permanent revocation of the IDSR designation. IDA staff shall perform due diligence in gathering facts concerning such allegations it deems credible, and will prepare a report of its findings for consideration by the DSPC. The DSPC commits to weighing the evidence fairly and impartially, and to seek to resolve disputes whenever possible through dialog. A IDSR subject to an investigation shall be notified in a timely manner and solicited for evidence contrary to the specifics of the allegation at hand. The IDSR will be given an opportunity to correct any deficiencies with regard to the Program guidelines established by the IDA investigation within a reasonable time period to be prescribed by the DSPC.

Failure to achieve consensus through these means risks a DSPC recommendation for suspension or revocation of the IDSR designation. If made, such a recommendation will be forwarded to the BOD for formal ratification before coming into force. The BOD decision on any disciplinary matters involving a IDSR shall be considered definitive and binding.

Any IDSR so investigated has the right to review the allegations against it and all factual information collected by IDA pertinent to the allegations.

REINSTATEMENT FOLLOWING SUSPENSION

If the DSPC recommends a suspension of an IDSR designation, and the BOD ratifies

the suspension, the IDSR shall be immediately notified. The status of a suspended IDSR shall be changed to “Provisional” in all IDA communications until the designation is reinstated or revoked; however, the process of obtaining reinstatement of a designation is not the same as that outlined in the “Provisional Status” section of these guidelines.

To obtain reinstatement of a suspended designation, the IDSR must provide evidence to the DSPC’s satisfaction that the specific issues identified by the DSPC as grounds for the suspension have been corrected and that all Program guidelines are once again met. The DSPC will consider the evidence presented by the IDSR and render a judgment to either

- Accept the reinstatement petition, **OR**
- Reject the petition and recommend revocation, **OR**
- Return the petition with further instructions and a defined deadline for a IDSR response.

A suspension left unresolved after one (1) year from the date of the BOD’s assent to the suspension automatically becomes a permanent revocation. Revocation entails removal of the IDSR from IDA’s roll of approved International Dark Sky Places, and from mention on the IDA website and in member and external communications. IDA reserves the right to take legal action against any former IDSR whose designation is duly revoked but continues to use the IDA name/logo in advertising, communications, and/or signage.

SALE OR TRANSFER OF LAND OWNERSHIP

IDA considers the rights and privileges outlined here in association with IDSR status to be simultaneously permanent and revocable. Furthermore, IDA requires that the responsibilities and obligations of the landowner(s) at the time IDSR status is achieved are incumbent upon all future landowner(s) if the core zone(s) of a participating Reserve is/are sold or its/their title is otherwise transferred to any other public or private owner. A new owner or owners may unilaterally withdraw from participation in the program at any time by indicating these wishes in writing; otherwise, IDA will hold a new owner or owners accountable to the provisions of these guidelines in perpetuity. Any failure of new ownership to abide by the conditions for continued participation in the program laid out in this document, whether indicated by withdrawal or abandonment of responsibilities, will cause IDA to take action as described above (‘Investigation and Due Process’) which may result in the permanent revocation of IDSR status.

Unified Development Code Revisions







DIVISION 4-7. - SIGNS

Sec. 21-4-703. - Design characteristics.

...

- (e) **Illumination.** Internal and external illumination of permanent signs is allowed in all nonresidential and mixed-use zones, and for multifamily and nonresidential uses in residential zones, as follows:
- (1) All illumination shall comply with the standards set out in division 5-4, Lighting.
 - (2) External lights, electrical equipment, and wiring shall be concealed from view.
 - (3) Flashing, blinking, or chasing lights are not allowed.
 - (4) Beginning January 1st, 20XX, all internally- and externally-lit signs shall be turned off by 10:00 p.m. or within one (1) hour of the end of normal business hours, whichever occurs later, unless required for wayfinding or the business is open 24 hours. Signs within the Central Business District zone for properties that front Main Street are exempt from these requirements.
 - (5) Externally illuminated signs shall be lit only from the top of the sign, with fully shielded fixtures designed and installed to prevent light from spilling beyond the physical edges of the sign.
 - (6) Internally illuminated signs shall be subject to all of the following requirements:
 - a. The sign must be constructed with an opaque background and translucent letters and symbols or with a dark-colored background and lighter letters and symbols. See Figure 21-4-703 *Internally Illuminated Signs*.
 - b. The luminous surface of an individual sign shall not exceed 80 square feet per face.
 - c. The internal illumination, between sunset and sunrise, shall be the lowest intensity needed to allow the sign to be visible for up to 1/2 mile and shall in no event exceed 1,700 lumens.
- (f) **Electronic Message Centers.** Electronic message centers are allowed on freestanding permanent signs in the CB and CBD zones, as follows:
- (1) Electronic message centers are subject to the requirements of division 5-4, Lighting.
 - (2) Electronic message centers shall appear to be integrated into a permanent freestanding sign, and shall not comprise more than 35 percent of the sign area of the sign to which they are attached.
 - (3) Not more than one electronic message center is allowed per subject property.
 - (4) Electronic message centers are not allowed if a changeable copy panel is present on the subject property.
 - (5) Electronic message centers that are both visible from, and located within one hundred (100) feet from, a residential zone shall be turned off by 10:00 p.m.
 - (6) Messages appearing on electronic displays shall not be displayed for less than eight (8) seconds and shall require no longer than 1 second to transition from one message to another. Moving and/or flashing text or images are prohibited.

- (7) Display brightness, between sunset and sunrise, is to be the lowest intensity needed to allow the sign to be visible for up to 1/2 mile from its installation and shall not exceed 1,700 lumens.
- (8) The luminous surface area of an individual sign shall not exceed 80 square feet per face.
- (9) All electronic message centers shall have automatic dimming capability that adjusts the brightness to the ambient light at all times of the day and night.

Figure 21-5-703E6 Internally Illuminated Signs		
Light Background <input type="checkbox"/>	Colored Background <input checked="" type="checkbox"/>	Opaque Background <input checked="" type="checkbox"/>
		
		

DIVISION 4-8. - DESIGN STANDARDS

Sec. 21-4-805. - Manufactured home park and manufactured home subdivision design standards.

...

(f) **Lighting.** All interior streets and sidewalks shall be lighted for safe movement of vehicles and pedestrians at night. Such lights shall be fully shielded to prevent glare on adjacent properties and external streets, and to avoid sky glow. All outdoor lighting shall adhere to division 5-4. Lighting.

...

DIVISION 5-4. - LIGHTING

Sec. 21-5-401. - Purpose and intent.

The purpose of this section is to provide standards for outdoor lighting design that preserve, protect, and enhance the City's night sky while conserving energy, permitting reasonable and safe nighttime use of properties, minimizing glare and obtrusive light,

and helping to protect the natural environment and wildlife from the impacts of night lighting. The intent of this division is to ensure that the use of light, particularly at night, is only prescribed when it is needed, where it is needed, and in the appropriate amount for a specific task. The standards of this division shall not be interpreted in any way to detract from public safety. These standards are based on the provisions of DarkSky International's (DSI) 2018 International Dark Sky Reserve guidelines.

Sec. 21-5-402. - Scope and applicability.

- (a) **Compliance.** All outdoor lighting that is replaced or newly installed after the effective date of this ordinance shall conform to the requirements established by this division. Existing lighting that remains unchanged (including ongoing standard maintenance such as bulb replacement and/or painting of existing poles and fixtures) shall be exempt from the requirements herein,
- (b) **Exemptions.** The following are exempt from the requirements of this division.
 - (1) Lighting that is not permanently installed and of a temporary nature, such as lighting needed for construction. Such lighting shall be discontinued upon completion of the work for the day or resolution of the situation necessitating its usage.
 - (2) Lighting of any type that is installed or (or required to be installed) by the federal government, the State of Colorado, Alamosa County, the city, or the school district, on property owned or controlled by the governmental entity. Such lights include but are not limited to traffic control devices, temporary lights that are used in conjunction with traffic control, lights for specific security purposes as determined by the Administrator, and other lights that said entities display, require, or license to be displayed upon property that they own or control.
 - (3) String, bistro, and similar lighting provided that the emission of no individual lamp exceeds fifty (50) lumens, and no installation of such lighting exceeds six thousand (6,000) lumens in aggregate. These lights must be rated at or below 3000 Kelvins.
 - (4) Low voltage landscape lighting used to illuminate pathways and landscape features in residential areas, provided the lights are installed no more than eighteen inches (18") above the adjacent ground level and have caps that direct the light downward.
 - (5) Lighting that is clearly incidental, customary, and commonly associated with a holiday. The light intensity of all holiday lighting shall not exceed one-half (1/2) of a foot-candle, measured both horizontally and vertically, at the property line.
 - (6) Any decorative or seasonal lighting, such as string lighting, bistro lighting, or holiday lighting, within the Central Business District.
- (c) **Nonconforming Lighting.** All existing outdoor lighting that does not meet the requirements of this division and is not exempted by this division shall be brought into compliance pursuant to the standards set forth in Sec. 21-7-404. - Nonconforming Lighting.

Sec. 21-5-403. - Prohibited Outdoor Lighting.

The following types of outdoor lighting sources, fixtures, and installations shall be prohibited in the City of Alamosa:

- (a) Outdoor floodlighting by floodlight projection above the horizontal plane.
- (b) Searchlights, flood lights, laser source lights, or any similar high-intensity light, except in emergencies by police, fire, or medical personnel or at their direction.
- (c) Flashing or blinking lights, or lighting with changing intensity except for seasonal holiday lighting.
- (d) Any light that could be construed as a traffic control device and which has not been authorized by a state, federal, or local government.
- (e) Mercury vapor lighting.

Sec. 21-5-404. - Lighting Information Required. All permits that involve new construction or site development, or modifications of existing buildings or sites shall include sufficient information that the proposed lighting complies with this division, and shall include illustrations, such as those contained in a manufacturer's catalog cuts, of all proposed lighting fixtures. The Administrator may require information regarding the light fixture, initial lumen rating, wattage of each lamp source, and shielding mechanisms.

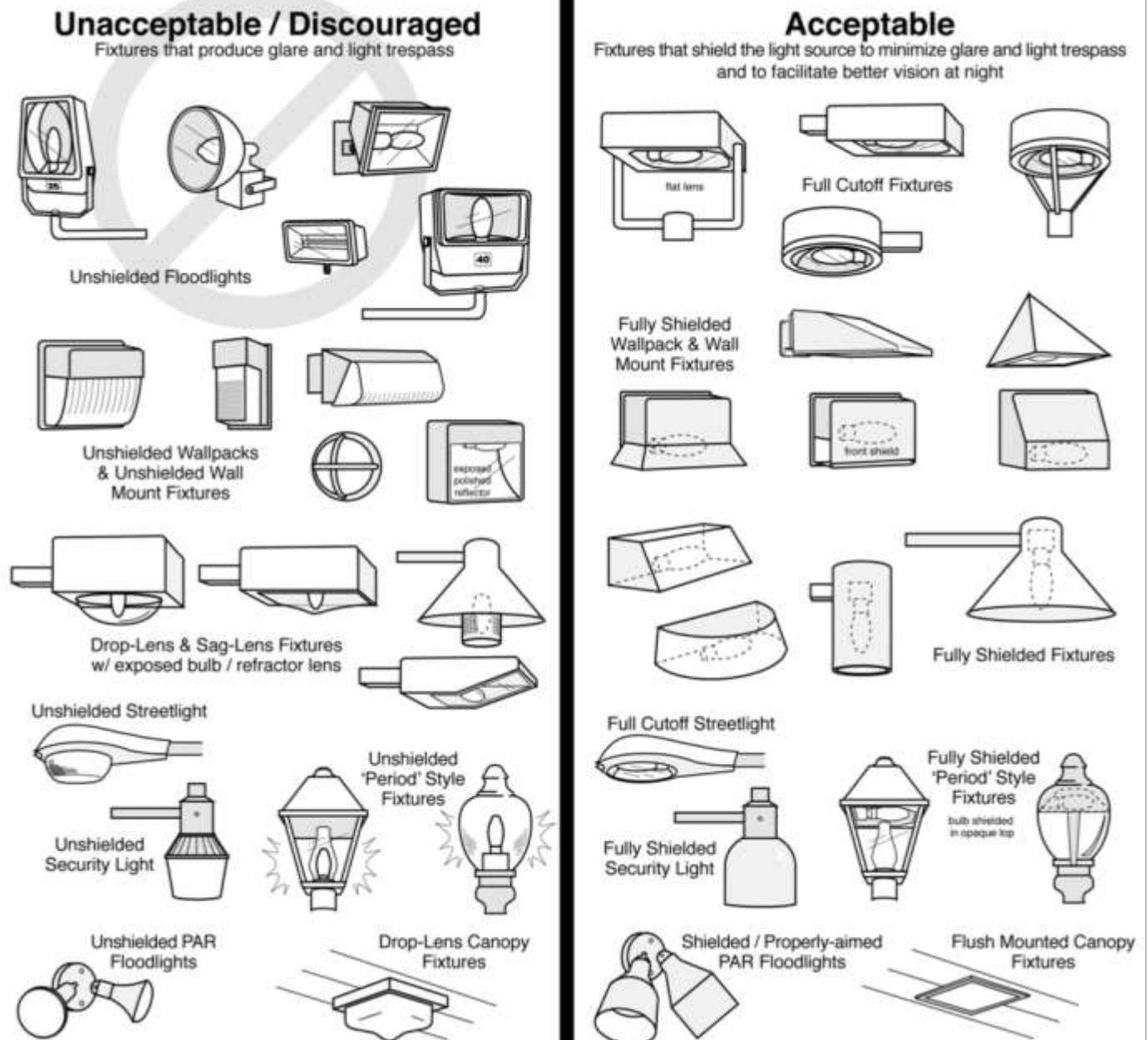
Sec. 21-5-405. - Outdoor Lighting Standards.

(a) **Generally.** Exterior lighting in all zones, except for outdoor recreation lighting, shall conform to the requirements of this Section.

(b) **Fixture Types.**

- (1) All outdoor lighting subject to this Code shall be fully shielded and directed toward the ground or downward, shielded by roof elements, or effectively recessed to minimize light trespass, glare, and skyglow.
- (2) Unshielded or partially shielded fixtures may be used only for decorative purposes, provided:
 - a. They are fixtures that produce no more than 500 lumens (approximately equal to a traditional 60W incandescent bulb); and
 - b. They are not installed above a height of eight (8) feet.

Figure 21-5-405B
Illustrative Examples of Acceptable and Unacceptable Light Fixtures



ILLUSTRATIONS BY BOB CRELIN©. RENDERED FOR THE TOWN OF SOUTHAMPTON, NY.
 COURTESY OF INTERNATIONAL DARK-SKY ASSOCIATION.

- (c) **Maximum Freestanding Fixture Height.** No freestanding light fixture shall be greater than twenty-five (25) feet in height for non-residential and mixed uses and fifteen (15) feet in height for residential uses, except that greater heights may be approved by the Administrator if it is demonstrated that the greater height improves site lighting in a manner consistent with this Division.
- (d) **Maximum Illumination Levels.**

- (1) Brightness of outdoor lighting should be no more than necessary for the task at hand as defined by the Illuminating Engineering Society (IES RP-33-14 & RP-43). The maximum illumination for nonresidential and multifamily uses shall be 50,000 lumens per acre, and 25,000 lumens per acre for residential uses.
 - (2) Outdoor lighting shall be deflected, shaded, and focused away from adjacent properties, and shall not be a nuisance to such adjacent properties.
 - (3) Outdoor lighting shall be designed so that any overspill of lighting onto adjacent properties shall not exceed three-tenths of a foot-candle, measured vertically, and three-tenths of a foot-candle, measured horizontally, on adjacent properties.
- (e) **Canopy Lighting.** Canopy lighting for uses that have sheltered outside work or service areas or porte-cocheres, shall meet the standards of this Section. All lighting fixtures shall be recessed into the canopy so that they cannot be viewed from off-site from an eye height of four feet.
- (f) **Color Temperature.** Outdoor lighting fixtures shall be chosen to minimize the amount of short-wavelength light emitted into the nighttime environment, such as amber, yellow, and similar colors for lighting, and avoid bright white light wherever practically possible unless a demonstrated need for color rendition exists. In no case shall the correlated color temperature exceed 3000 Kelvins.
- (g) **Use of Adaptive Controls.** All outdoor lighting fixtures greater than 500 initial lamp lumens shall make appropriate use of adaptive controls, including, but not limited to, timers, dimmers, and motion sensors.
- (h) **Flagpole Lighting.**
 Nighttime flag illumination shall conform to the following standards:
- a. Flagpoles with a height greater than twenty (20) feet above ground level shall be illuminated only from above. The total light output from any fixture mounted on top or above the flagpole shall not exceed 800 lumens.
 - b. Flagpoles with a height equal to or less than twenty feet above ground level may be illuminated from below with up to two (2) spotlight-type fixtures, each emitting no more than 1,000 lumens, utilizing shields to reduce glare and prevent excessive light from shining around the intended target of illumination (i.e. the flag).
 - c. Fixtures are to be mounted so that the light output points directly to the flag.

Sec. 21-5-406 - Exterior lighting for outdoor recreation.

- (a) **Generally.** Ball diamonds, playing fields, driving ranges, tennis courts, and similar amusement or recreation uses have unique requirements for nighttime visibility and, generally, have limited hours of operation.
- (b) **Fixture type.** Light fixtures for illumination of playing courts and athletic fields shall be fully-shielded fixtures that are oriented to limit sky glow and direct lighting that is visible or measurable at the property line.
- (c) **Maximum freestanding fixture height.** No freestanding light fixture shall be greater than forty (40) feet in height, except that greater heights may be approved by the administrator if it is demonstrated that the greater height improves site lighting compared to fixtures that are forty (40) feet in height or less.

(d) Maximum illumination.

- (1) Field and court lighting shall be deflected, shaded and focused away from adjacent properties and shall not be a nuisance to adjacent properties.
- (2) Field and court lighting shall be designed so that any overspill of lighting onto adjacent properties shall not exceed one-half foot-candle, measured vertically, and one-half foot-candle, measured horizontally, at the property line.
- (3) Buffering may be used to reduce impacts of outdoor recreation lighting in order to achieve compliance with the requirements of this subsection (d).
- (4) Lighting shall provide levels of illumination that are adjustable according to the task, allowing for illumination levels not to exceed nationally recognized Illuminated Engineering Society standards according to the appropriate class of play, as well as for lower output during other times, such as when field maintenance is being actively performed.

- (e) Curfew.** Lighting shall be extinguished within one (1) hour of the end of active play. New installations of outdoor sports facility lighting shall be fitted with mechanical or electronic timers to prevent lights from being left on accidentally overnight.

Sec. 21-5-407. - Greenhouse lighting.

If indoor lighting is used during nighttime hours, which is between sunset to sunrise, for cultivation or agricultural purposes, whether as a principal or accessory use, it shall not be visible from outdoors. Black-out curtains or other kinds of light obstruction may be used.

Sec. 21-5-408. - Public safety and public nuisance.

- (a) Generally.** The city may require the modification or removal or limited operation of existing or new lighting fixtures if they are found to be a public hazard or public nuisance according to the criteria of this section.

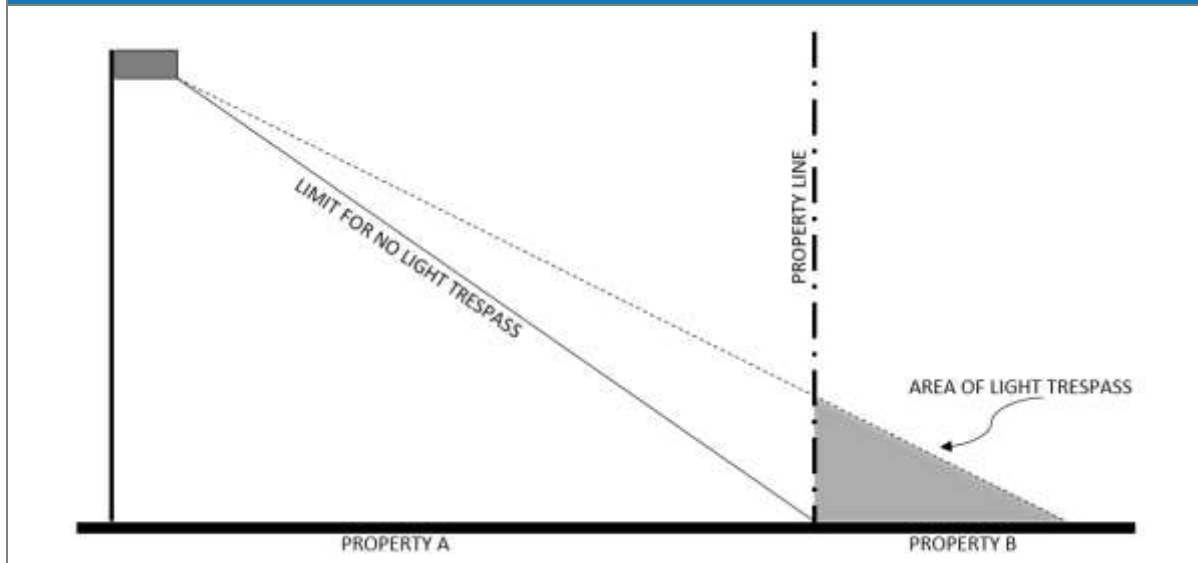
- (b) Hazards.** Criteria for finding illumination to be a public hazard are as follows:

- (1) Light trespass or glare which is sufficiently intense or contrasts excessively with surrounding illumination, regardless of the intensity of the surrounding illumination, in a manner to cause impairment of visual performance or to distract from or impair the safe operation of a vehicle.
- (2) Light trespass or glare that impairs a person's visual performance or ability to avoid obstacles in their path.

- (c) Nuisance.** Criteria for finding illumination to be a public nuisance are as follows:

- (1) Light trespass or glare that deprives an owner or occupant of usual and reasonable use and enjoyment of their property.
- (2) A high frequency or duration of periods when light trespass or glare is sufficient to interrupt or interfere with usual and reasonable use and enjoyment of property other than the subject property.
- (3) Light trespass or glare that causes visual discomfort or impairment of visual performance in a manner that deprives the average person from the usual and reasonable enjoyment of the public streets and properties of the city.

Figure 21-5-408C
Light Trespass



Sec. 21-7-404. - Nonconforming Lighting. All existing outdoor lighting that does not meet the requirements or exemptions in Division 5-4 shall be considered a nonconforming use.

(a) Residential Uses. Nonconforming outdoor lighting for residential uses shall be brought into conformance when:

- (1) An existing building is expanded or improved, all new or relocated lighting shall be required to meet the provisions of article V, division 4, lighting.
- (2) All existing lighting shall be brought into compliance with this UDC when:
 - a. A building is expanded such that its floor area grows by **twenty (20)** percent or more;
 - b. The value of proposed new, expanded, or upgraded buildings or improvements (collectively "new construction") on the subject property exceeds the value of the buildings and improvements on the subject property before the new construction.

(b) Nonresidential, multifamily, and vertically-mixed uses. Nonconforming outdoor lighting for nonresidential, multifamily, and vertically-mixed uses shall be brought into conformance when:

- (1) A building, parking lot, or use is expanded such that its floor area grows by **ten (10)** percent or more;
- (2) The value of proposed new, expanded, or upgraded buildings or improvements (collectively "new construction") on the subject property exceeds **fifty (50) percent** of the value of the buildings and improvements on the subject property before the new construction.

(c) Change of use. Modifications to nonconforming lighting are not required if the use of a building changes from one (1) use to another without further changes to the site or the exterior of the building, unless:

- (1) A change of use requires additional parking, in which case the parking that is provided to meet that requirement must also comply with the standards in div. 5-4, lighting.
 - (2) A change of use requires limited or conditional use approval, in which case the conditions for approval may include requirements for additional lighting upgrades.
- (d) **Redevelopment.** If the subject property is redeveloped, lighting shall be provided as required by div. 5-4, lighting.

Definitions to add

Light, fully shielded means a fixture that allows no emission above a horizontal plane passing through the lowest light-emitting part of the fixture.

Lighting means any source of light that does not include natural light emitted from celestial objects or fire. The term includes any type of lighting, fixed or movable, designed or used for outdoor illumination of buildings or homes, including lighting for billboards, streetlights, canopies, gasoline station islands, searchlights used for advertising purposes, externally or internally illuminated on- or off-premises advertising signs, and area-type lighting. The term includes luminous elements or lighting attached to structures, poles, the earth, or any other location.

Adaptive Lighting Controls means a device or devices such as motion sensors, timers, and dimmers used in concert with outdoor lighting equipment to vary the intensity or duration of operation of lighting.

Sec. 21-11-102. - Calculations.

- (a) *Building coverage ratio.* Building coverage ratio is calculated as building coverage divided by lot area.
- (b) *Density.* Density is calculated as the number of dwelling units per acre of land of a lot or subject property, as applicable to the circumstances of the calculation.
- (c) *Open space ratio.* Open space ratio is calculated as the total area of open space on a subject property divided by the total area of the subject property.
- (d) *Luminance.* One Nit is equal to one candela per square meter, or 3.426 lumens.
- (e) *Value.* Value of land and or improvements shall be based on the records of the Alamosa County Assessor, or a valuation provided by a licensed real estate appraiser.

ALAMOSA PLANNING COMMISSION COMMISSION COMMUNICATION

Subject/Title:

Request to Convert a Non-Conforming Light Industrial Telecommunications Use to a Conforming Use at 1405 Hunt Avenue

Background:

The subject property is located at 1405 Hunt Avenue, otherwise known as Lots 15-16, Block K, Boyd School Sub, Assessor's Parcel Number 541310428009. The lot is $\pm 9,600$ square feet in area and is located in the Established Neighborhood (EN) zone. *See the attached location map.* The lot is currently improved with a ± 408 square-foot building constructed in 1979 which houses communication equipment. A backup generator and some outdoor storage is also on-site. The use is classified as *Light Industry*. This property has two historic zoning/planning approvals: a zoning variance in 1955 for the installation of a television receiving antenna tower and accompanying building to house electronic and related equipment (55-01 ZBOA); a similar request for the installation of a disc antenna in 1978 (78-08).

The right to continue an existing non-conforming use and maintain it in reasonable repair is permitted, but it cannot be altered or extended under **Sec. 21-7-201** of Alamosa's Unified Development Code (UDC). The applicant wishes to replace the dilapidating structure with a ± 324 square-foot concrete structure, thus requiring a conversion from a non-conforming use to a conforming use request pursuant to **Sec. 21-7-204**. An example of the proposed structure is shown in the applicant's request narrative. *See the applicant's site plan, full request narrative, and other documents, attached.* Pictures of the site are attached.

The completed and sufficient Land Use Application was delivered to the Development Services Department on 1/31/2023. Posting requirements have been met pursuant to **Table 21-8-511**. Note that unlike variances, this process only requires the property to be posted.

Analysis and Impact:

Under the standards of **Sec. 21-7-204**, any non-conforming use may be converted into a conforming use by meeting the approval criteria for a Conditional Use Permit (CUP) - specifically plan implementation, compatibility, and community need. Further requirements state that the non-conforming use should have minimal nonconformities and has been integrated into the function of its surrounding neighborhood or zone. In relation to these criteria, staff makes the following findings. Italicized texts are the quoted standards.

Sec. 21-2-302. - General Standards for All Conditional Uses

(b) *Plan Implementation.* Retaining this site is in direct accordance with GOAL ED.2 RETAIN EXISTING BUSINESSES ACROSS ALL SECTORS AND HELP THEM

ADAPT AND EXPAND- Strategy K: "Continue to work in partnership with telecommunications companies and organizations to improve internet and cellular phone infrastructure." (Page 31).

(c) *Compatibility.* These three criteria are the most difficult to achieve through this process of non-conforming conversion.

(1) *Will be compatible with surrounding land uses.* The surrounding land uses are residential uses and vacant property. The compatibility is evidenced by the fact that this use has been in place for over 50 years, and the scale of the existing and/or proposed structures are of a scale appropriate for a neighborhood.

(2) *Is proposed for a location that is appropriate in terms of mitigating the impacts or risks of the use to the natural environment, or the environmental impacts or risks*

are mitigated through the design or the operation of the use. There are no known risks to the environment at this site.

(3) Will not materially detract from the character of the immediate area or negatively affect the anticipated development or redevelopment trajectory (for example, by creating a critical mass of similar conditional uses that is likely to discourage permitted uses by making the vicinity less desirable for them). Given that this site has been used for communication since 1955, and has been mostly been in its current state since 1979. There are no opportunities for similar approvals or development in either the developed or vacant properties. The detracting or potential detracting of the character of the surrounding area can be mitigated through this process by the use of bufferyards.

(d) *Community Need.* Telecommunication infrastructure is critical to the functioning of our modern society.

Sec. 21-7-204(c) Conversion by Conditional Use Approval; Standards

(2) The use has minimal nonconformities and has been integrated into the function of its surrounding neighborhood or zone, as evidenced by the following:

- a. Nearby city residents regularly patronize the use or are employed by the use (for nonresidential uses in or abutting residential neighborhoods).* Not applicable. This is an un-manned site.
- b. Management practices eliminate nuisances such as:*
 - i. Spillover of noise or light.* Staff is unaware of any spillover light or noise. If such conditions are found to exist with respect to lighting, Planning Commission may choose to impose conditions to mitigate these nuisances.
 - ii. Odors and appearance of waste materials and litter.* Staff is unaware of any odors. There is some clutter of material related to telecommunications. This should be mitigated by requiring screening and buffering.
 - iii. Unreasonably congested on-street parking.* Not applicable. This is an un-manned site.
 - iv. Comparable conflicts with abutting and nearby properties.* The property has operated as an industrial-communication use since 1955, and developed in its current state since 1978. Most of the adjacent residences were built more or less contemporaneous with the initial 1955. Barring any public testimony to the contrary, it stands to reason that any conflicts would be comparable throughout the history of the use.
- c. There is no material history of complaints about the use (a history of complaints is justification for denying the conditional use permit, unless the conditions of the permit will eliminate the sources of the complaints).* The code enforcement system, which tracks violations back to 2019, shows no evidence of code enforcement actions.
- d. If the use is nonresidential, it is licensed in accordance with the applicable ordinances of the city.* The site operates under the general franchise agreement between Charter Communications and the City of Alamosa.
- e. The use has been maintained in good condition and its classification as a nonconforming use would be a disincentive for such maintenance.* There is some site clutter, but it is overall in fair condition. The approval of the conversion to a conforming use would allow for the replacement of the existing ageing structure and enable Planning Commission to impose reasonable conditions to mitigate any potential adverse impacts.

Recommended Action:

The conversion of non-conforming to conforming use is one of the highest bars to overcome in the

UDC. Unless public comment presents evidence contrary to staff's findings, staff recommends that Planning Commission **approve with conditions** the request for the conversion of the non-conforming to conforming use with the condition that the applicant be required to install a Class A buffer strip on the east side and those portions of the north side of the property not in conflict with the existing structures or underground utilities, as well as an at least 6-foot tall fence that incorporates privacy slats along the entire perimeter of the site. A visual example of the buffer strip is shown below. However, there is no water service at the site, thus all plantings must be xeric, and trees and shrubs may be difficult to establish. Since communication infrastructure is deemed critical, the Federal Communications Commission (FCC) will likely require the barbed wire to remain. If public testimony establishes other nuisances that can be reasonably resolved in this process, those also may be imposed at this time. Note, while Planning Commission issues the decision on this request, this decision is then ratified by City Council.



Sample findings and motion. Motions are provided for suggestion and as a template only, and are not required to be followed:

*I find that the request to convert the existing light industrial telecommunications use at 1405 Hunt Avenue is substantially compliant with the standards outlined in **Sec. 21-7-204(c)**.*

*Therefore, I move to **conditionally approve** the request with the requirement that the applicant installs a Class A buffer strip on the east side and those portions of the north side of the property not in conflict with the existing structures or underground utilities, as well as an at least 6-foot tall fence that incorporates privacy slats along the entire perimeter of the site.*

Alternatives:

The following is a non-exclusive list of actions that Planning Commission may take.

(Recommended action) Planning Commission may choose to **approve with conditions** the non-conforming conversion request. Staff suggests the applicant be required to install a Class A bufferyard on the east and north property boundaries (where feasible), as well as vision screening elements incorporated into a 6' tall fence.

Planning Commission may **approve** the request **with conditions** different than those suggested by staff to mitigate any potential adverse impacts. Such reasonable conditions may involve lighting or landscaping, for example.

Planning Commission may **approve** the request without any conditions, if it finds there are no adverse impacts

Planning Commission may approve the request without any conditions, or it may require the adverse impacts needing to be mitigated.

Planning Commission may **deny** the request if it finds the request does not meet the standards for which a non-conforming use can be converted to a conforming use. If Planning Commission decides to deny the request, it must provide findings of fact outlining how the request does not meet those standards. The result of denial will allow the use to continue in reasonable repair, but it could not be altered or extended.

These decisions are all subject to ratification by City Council on March 20th.

Relevant Code:

Article VII. - Nonconformities

Sec. 21-7-101. - Purpose

(a) **Generally.** The application of new regulations to existing development may create circumstances in which existing lot dimensions, density, intensity, land uses, buildings, structures, landscaping and buffering, lighting, parking areas, or signs do not strictly conform to the requirements of the new regulations. For existing lots or development (including uses, buildings, structures, and signs) that are “legally nonconforming,” this Article sets out equitable rules for whether, when, and how the regulations of this UDC apply.

(b) **Conversion of Nonconformities.** Generally, nonconforming uses, buildings, structures, and signs are not allowed to be enlarged, expanded, increased, nor be used as grounds for adding other structures or uses that are now prohibited in the same zone. This Article provides standards by which minor nonconforming uses can be made “conforming” through a public hearing process.

(c) **Reduction of Nonconformities.** It is the policy of the City to encourage reinvestments in property that increase its value and utility and reduce its external impacts. Since bringing a developed parcel into full compliance with this UDC may involve substantial costs that may discourage reinvestment, Division 7-4, *Other Physical Nonconformities*, provides a set of thresholds for determining when new construction or modifications to development trigger a requirement for increasing conformity with the various requirements of this UDC.

Sec. 21-7-204. - Conversion of a Nonconforming Use to a Conforming Use

(a) **Generally.** In many instances, nonconforming uses may be integral parts of the City’s fabric, that is, its character and function, so their continuing existence promotes the City’s policy of retaining existing businesses or protecting its character and neighborhoods. In these instances, the classification “nonconforming use” and resulting restriction on investment may not be what the community desires. As such, a nonconforming use may be made “conforming” pursuant to this Section in order to remove the potential stigma associated with the “nonconforming” designation.

(b) **Limitation.** Unlawful uses may not be made conforming under this Section.

(c) **Conversion by Conditional Use Approval; Standards.** A conditional use approval may be granted to make a nonconforming use “conforming,” if:

- (1) The criteria for approval of a conditional use set forth in Section 21-2-302, *General Standards for All Conditional Uses*, are met; and
- (2) The use has minimal nonconformities and has been integrated into the function of its surrounding neighborhood or zone, as evidenced by the following:
 - a. Nearby City residents regularly patronize the use or are employed by the use (for nonresidential uses in or abutting residential neighborhoods).
 - b. Management practices eliminate nuisances such as:
 - i. Spillover of noise or light;
 - ii. Odors and appearance of waste materials and litter;
 - iii. Unreasonably congested on-street parking; or
 - iv. Comparable conflicts with abutting and nearby properties.
 - c. There is no material history of complaints about the use (a history of complaints is justification

c. There is no material history of complaints about the use (a history of complaints is justification for denying the conditional use permit, unless the conditions of the permit will eliminate the sources of the complaints).

d. If the use is nonresidential, it is licensed in accordance with the applicable ordinances of the City.

e. The use has been maintained in good condition and its classification as a nonconforming use would be a disincentive for such maintenance.

(d) **Conditions.** Conditions may be imposed relative to bufferyards, landscaping, or other site design provisions, or other limitations (including limitations on future expansion or operational characteristics) necessary to ensure that, as a conforming use, the use will not become a nuisance. Such conditions may relate to the lot, buildings, structures, lighting, landscaping, parking, drainage, or operations of the use.

(e) **Effect of Approval.** Uses that comply with the terms of a conditional use approval that is issued in accordance with this Section are converted from “legally nonconforming uses” to “conforming uses” by virtue of the issuance of the conditional use permit, and subject to its terms. Conditional use approvals shall be provided to the Applicant in writing and may be recorded by the Applicant at the Applicant’s expense.

(f) **Effect of Denial.** If an application for conversion of a nonconforming use is denied, the use may thereafter continue as a nonconforming use.

Sec. 21-2-302. - General Standards for All Conditional Uses

(a) **Generally.** All conditional uses shall meet the standards of this Section related to plan implementation, compatibility, and community need.

(b) **Plan Implementation.** The proposed conditional use in its proposed location will not conflict with the implementation of current adopted plans of the City, including, but not limited to, the Comprehensive Plan;

(c) **Compatibility.** The conditional use:

(1) Will be compatible with surrounding land uses;

(2) Is proposed for a location that is appropriate in terms of mitigating the impacts or risks of the use to the natural environment, or the environmental impacts or risks are mitigated through the design or the operation of the use; and

(3) Will not materially detract from the character of the immediate area or negatively affect the anticipated development or redevelopment trajectory (for example, by creating a critical mass of similar conditional uses that is likely to discourage permitted uses by making the vicinity less desirable for them).

(d) **Community Need.** The conditional use, in the proposed location, will:

(1) Address a material need for the use in the community; or

(2) Create jobs that are likely to pay more than the median wages for the region, or support a critical mass of related and mutually supportive land uses that promote economic development and opportunity.

Sec. 21-5-306. - Bufferyard Landscaping

(a) **Generally.** Bufferyard landscaping is required as set out in this Section, and as set out in this UDC for specific uses or situations.

(b) **Applicability.** The standards of this Section apply to all required bufferyards.

(c) **Bufferyard Classifications.** For the purposes of this UDC, there are five classifications of bufferyards, as set out in Table 21-5-306C, *Bufferyard Classifications*.

Table 21-5-306C Bufferyard Classifications						
Bufferyard Classification	Minimum Width	Required Plantings per 100 Linear Feet				Berm, Opaque or Semi-Transparent
		Canopy	Understory	Evergreen	Shrub	

Classification	Width	Trees	Trees	Trees	Shrubs	Fence, or wall
Table 21-5-306C Class A Bufferyard Classifications	5 ft.	1	1	1	10	Not required
Class B Bufferyard Classification	10 ft.	Required Plantings per 100 Linear Feet				Not required
Class C Bufferyard Classification	25 ft.	2	2	4	30	Berm, opaque
Class D Bufferyard Classification	50 ft.	Canopy Trees	Understory Trees	Evergreen Trees	Shrubs	Fence, or Wall ¹
Parking Bufferyard	5 ft.	0	0	0	40	3 ft. high allowed as alternative to shrubs ²

TABLE NOTE:

¹ If a fence or wall is used, all understory trees and shrubs, and not less than 50 percent of the canopy trees and evergreen trees shall be planted on the outside of the wall. If a berm is used, all shrubs shall be planted on the outside (or outside slope) of the berm.

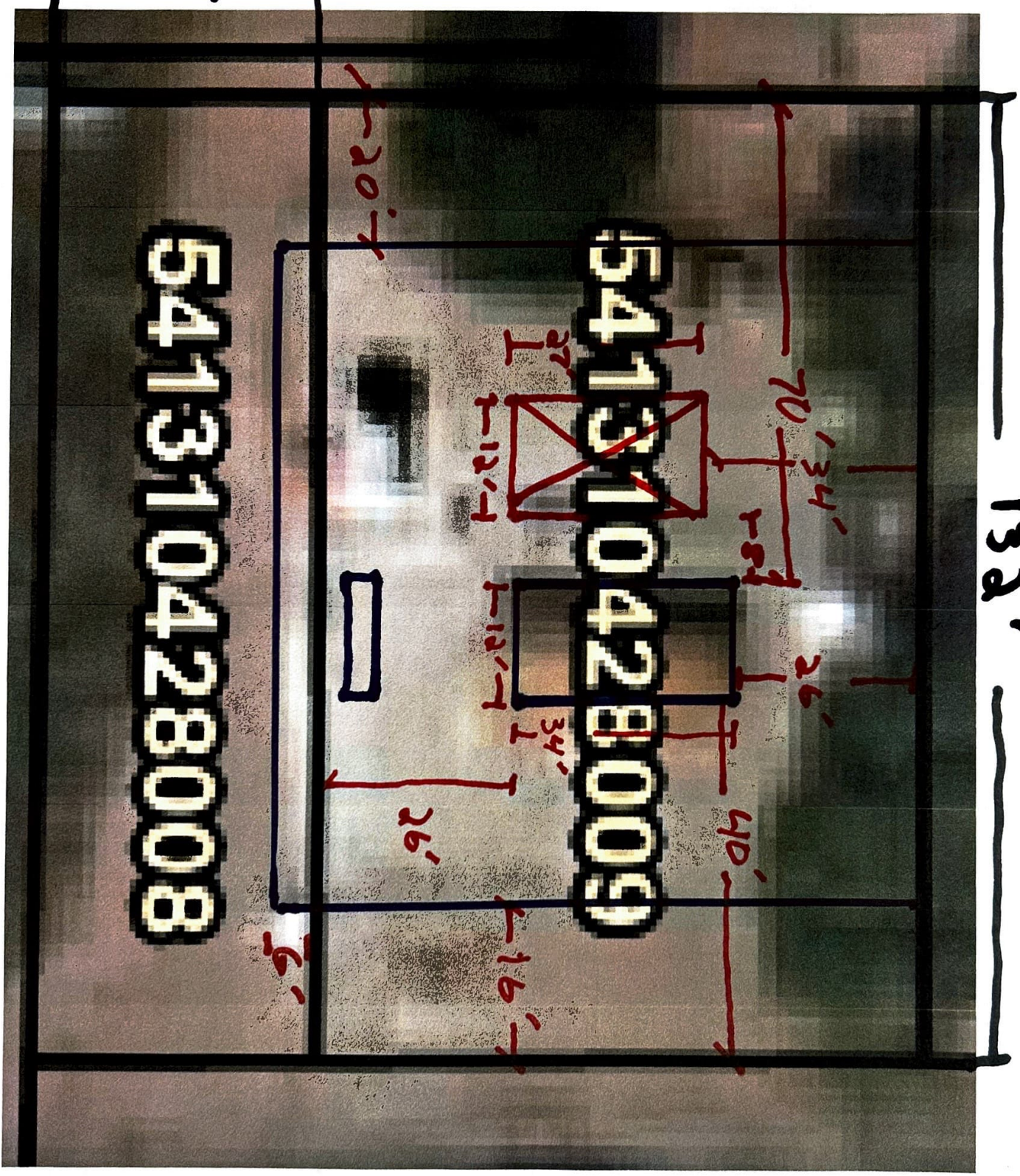
² For nonresidential uses that are located within or adjacent to a residential zone, an opaque fence or wall that is not less than five nor more than six feet in height is required on all boundaries of the subject property that are shared with properties that are in a residential zone.

ATTACHMENTS:

Description	Type
<input type="checkbox"/> Proposed site plan	Backup Material
<input type="checkbox"/> Project Narrative	Backup Material
<input type="checkbox"/> 1955 ZBOA case file	Backup Material
<input type="checkbox"/> 1978 Land Use Approval	Backup Material
<input type="checkbox"/> Area Map	Backup Material
<input type="checkbox"/> Property photos	Backup Material
<input type="checkbox"/> Comp Plan Extracts	Backup Material

1405 Hunt Ave Alamosa

132'



541310428008

541310428008

38'

87' 40'

ALAMOSA CO HEAD END BUILDING

1405 Hunt Ave, Alamosa CO 81101

CONTACT INFORMATION

OWNER: Spectrum Pacific West, LLC
12405 POWERBROOK DRIVE
ST. LOUIS, MO 63131

CONSTRUCTION MANAGER: LAKESHORE CONSTRUCTION
3591 LAKESHORE ROAD
MANISTEE, MI 49660
DAVE REYNOLDS, PROJECT MANAGER
dave@lakeshoreinc.com
507-254-7479

BUILDING CODE DATA

PROJECT DESCRIPTION: THE PROPOSED PROJECT INVOLVES THE CONSTRUCTION OF A FOUNDATION AND FLOOR SLAB FOR PLACEMENT OF A 8' PREFABRICATED CONCRETE TELECOMMUNICATIONS STRUCTURE.

APPLICABLE CODES: ICC International Code Series 2015 (Building, Mechanical, NFPA)

LOCAL JURISDICTION: City of Alamosa
300 Hunt Avenue
Alamosa, Colorado 81101

USE GROUP OCCUPANCY: GROUP "U" (UTILITY & MISCELLANEOUS)

CONSTRUCTION TYPE: TYPE "I-A" (NON-COMBUSTIBLE)

FIRE SUPPRESSION: FIKE FM-200 (ENTIRE BUILDING)

BUILDING AREA: 324 SF GROSS

BUILDING HEIGHT: ACTUAL - 1 STORY - 10'-6"

OCCUPANCY LOAD: 1 PER 300 SF GROSS & 2 PERSONS

ACTUAL - 0" UNMANNED SITE

EXITS (TABLE 1021.2): REQUIRED: 1

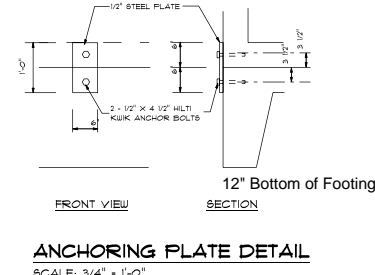
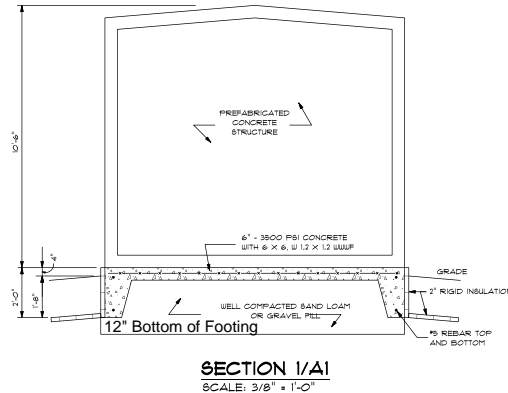
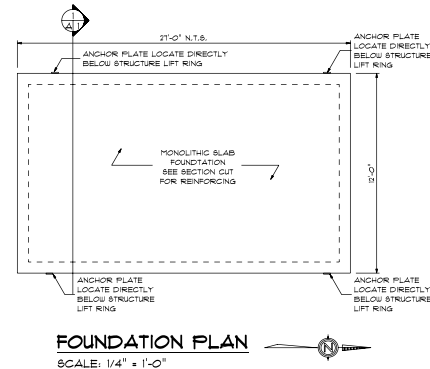
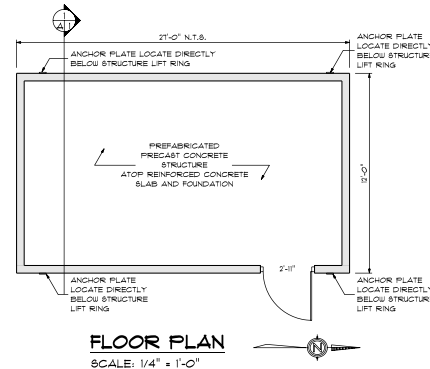
ACTUAL: 1

REQUIRED: MAX. 15'

ACTUAL: 28' +/-

EGRESS (TABLE 1021.2):

PARCEL NO.: 541310428009
LEGAL DESCRIPTION: Lots 15 & 15 Boyd School BL K 127
WD B 185 P 329 12-7-66



LATEST PLOT DATE: --

REVISION DATES:

LAKESHORE CONSTRUCTION
3591 LAKESHORE ROAD • MANISTEE, MI 49660
PHONE: 231-329-2765

DESIGNER:
MMH
1/30/23
CHECKED BY:
DR -
DWG. DATE:
-

CHARTER SPECTRUM
1405 Hunt Ave, Alamosa CO 81101

FLOOR AND FOUNDATION PLANS,
SECTION AND DETAIL

COMPUTER FILE NAME:
Alamosa 280 Hunt Ave

SHEET NUMBER

A1

1.30.24

Project Narrative:

Site Address: 1405 Hunt Ave, Alamosa Co

Parcel#: 541310428009

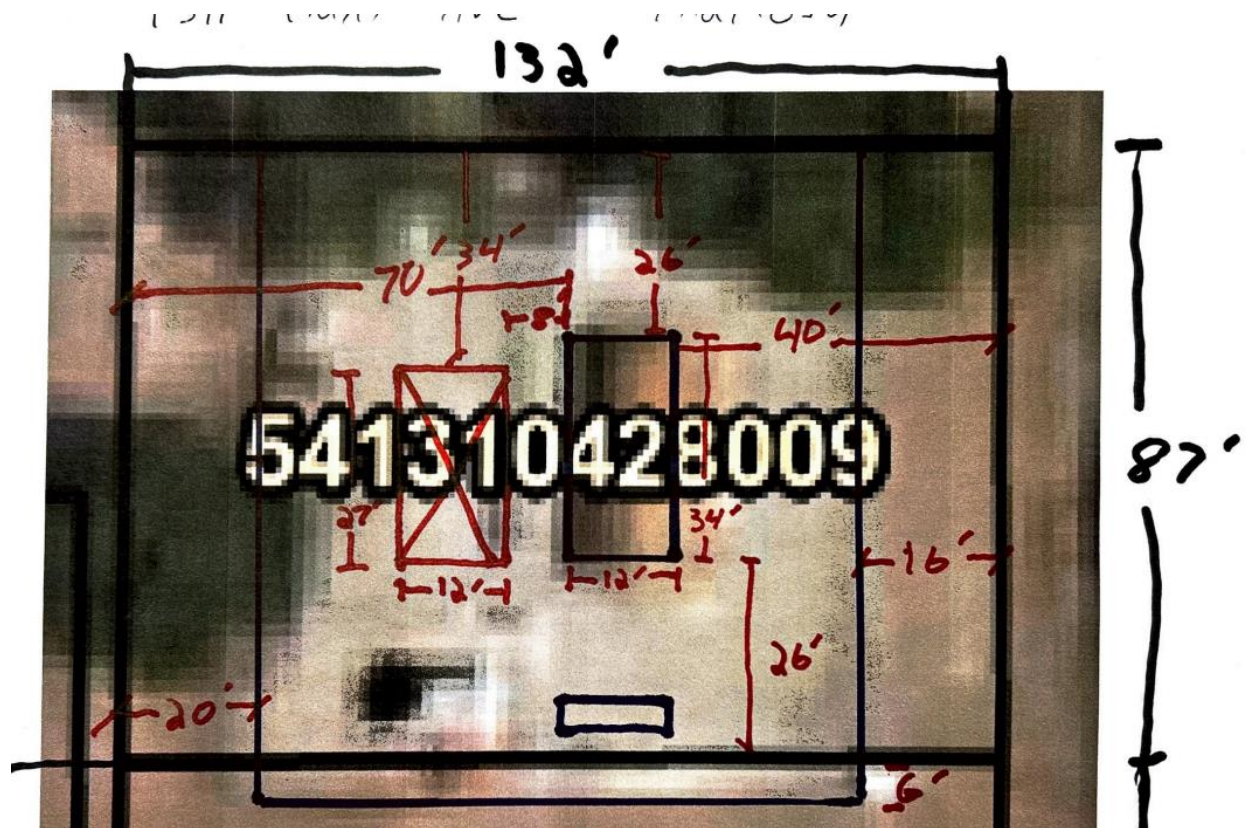
Current Use:

Spectrum Pacific West, LLC has used this building since at least 2000 with a building 12'x34' 408sf as a Communications Hub/Shelter for Phone, TV & Internet services. Also known as a Head End or Data Center. This provides communications services for the Alamosa area. There is a emergency back power generator onsite as well. Current site has 6' barbed wire security fencing which is recommended for communication sites. Currently is a legal non-conforming use.

Future Use:

Spectrum Pacific West, LLC plans to use the property for the same use in the future for internet, phone, TV & EAS Emergency Alert System. The current building is in poor condition and in need of replacement. They would like to install a new 12'x27' 280sf Concrete All weather/disaster protection communications Hub building that is 11'6"x27'x9' tall next to the existing building location as shown on the site plan. Once the new building is installed and services are migrated over to the new building we would demolish the existing building and clean up the site with fresh landscape rock on the city approved shrubs etc. etc. We will plan to install a new 6' tall black fence with privacy slats(screening) with barbed wire. We can also comply with a Class A Bufferyard requirements. There is no water service required for the owner use.





City of Alamosa

Colorado

The "Hub" of The San Luis Valley

April 26, 1955

Minutes, Board of Zoning Adjustment, Alamosa, Colorado

Meeting called to order at 4:40 p.m. by Chairman Jay Maxwell. Present were Board members Clyde Williams, T. D. L. Menke, R. W. McAfee, Mrs. David Greenwald, Clerk of the Board Glynn Mills, City Building Inspector J. H. Flemmons, and the appellants Dave Onstead and Larry Peay of Community Television Systems of Colorado, Inc.

The Board read both the notice of the meeting which appeared in the Daily Courier on Monday, April 25, 1955, and the Notice of Appeal and petition for variance submitted by the appellants, Community Television Systems of Colorado, Inc.

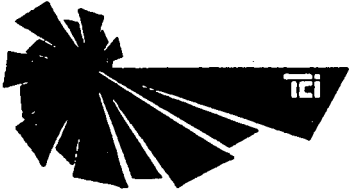
The Appellants requested a variance for the installation of a television head-end receiving antenna tower and accompanying building to house electronic and related equipment for their Cable TV signal system, in lots 15 and 16 of Block 127, Boyd School Addition, City of Alamosa, Colorado.

The Board, after hearing the request and reading sections 13 through 16 of the original master plan and zoning resolutions (subsequently adopted by ordinance), visited the site to see in person the land and buildings in the area.

After returning from the site, it was moved by McAfee, Seconded by Greenwald, that the appellants be granted the zoning variance to install television tower approximately 100 feet high in lots 15 and 16, Block 127, in accordance with their appeal and request. The Board further finds that the public convenience and welfare will be substantially served by allowing this variance, and further finds that such variance will not deteriorate the values of adjoining land or buildings in any way.

Meeting adjourned.

Glynn Mills
Glynn Mills
Clerk of Board of Appeals



ALAMOSA CABLE T.V.

COMUNICO — SUBSIDIARY OF TCI

312 State - Phone 589-3221

ALAMOSA, COLORADO 81101

April 10, 1978

City of Alamosa
425 4th
Alamosa, CO
81101

Mr. Nichols,

Would you place Alamosa Cable TV on the next planning commission meeting agenda? We are interested in obtaining approval to install Cable TV equipment on company owned property. Property location is Boyd School Blk.127, lots 15 and 16- Hunt Ave. and 14th Street.

Approved

Regards,

R.L. Armstrong
R.L. Armstrong mgr.
Alamosa Cable TV

c.c.
Art Lee
Don Morris

NOTICE OF HEARING

Notice is hereby given that the Alamosa City Planning Commission will hold a public hearing in the Council Chambers at City Hall, Wednesday, May 24, 1978 at 8:00 p.m. upon the request of Cable T.V. who is requesting Planning Commission approval to install a disk antenna on Lots 15 and 16 in Block 127.

Further notice is hereby given that any and all persons of interest may appear at said hearing and be heard.

Earle B. Nichols
City Engineer

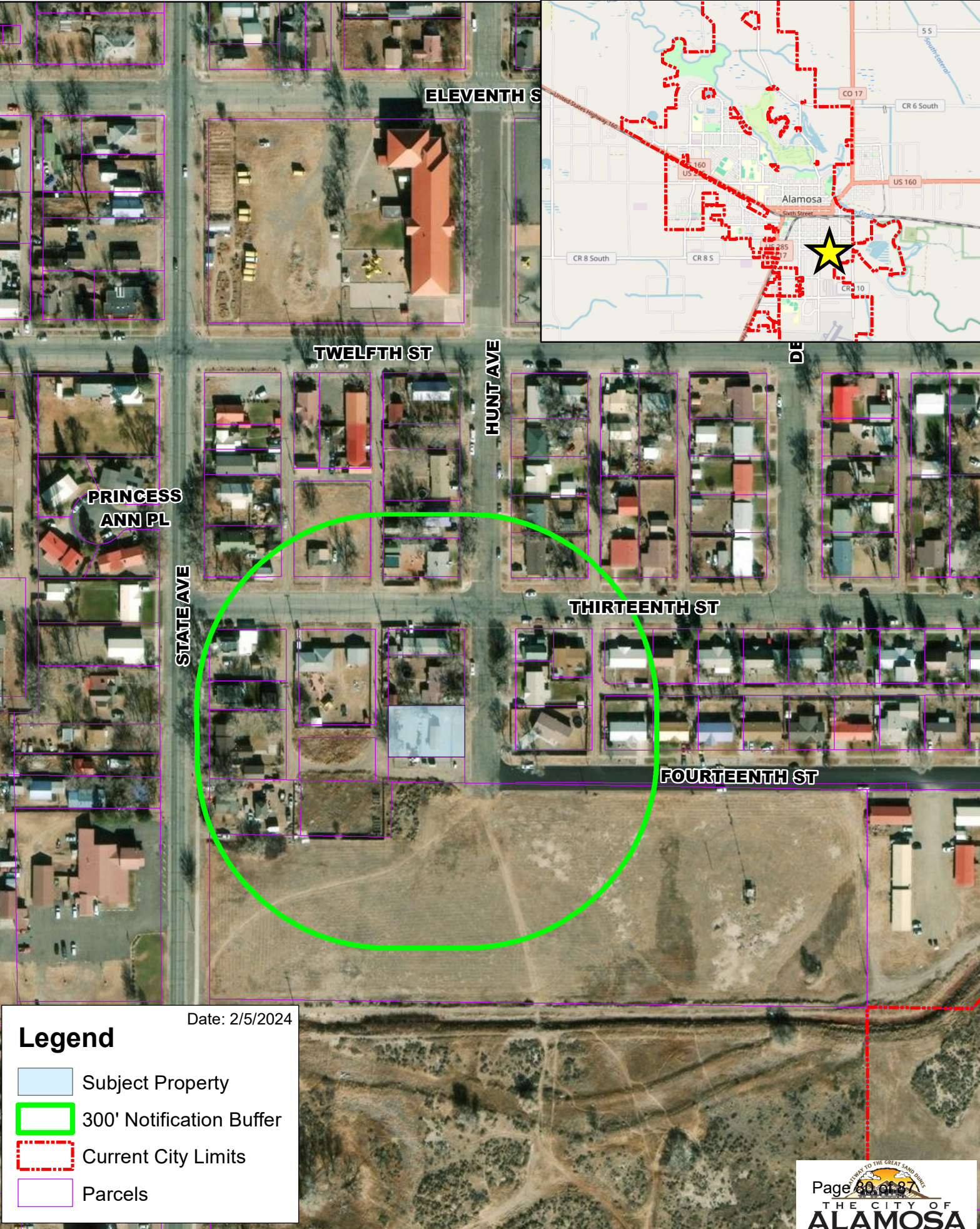
INSTALLATION OF CABLE T.V. EQUIPMENT ON LOTS 15, & 16, BLOCK 127 Mr. Louie Armstrong, of Alamosa Cable TV, requested permission to install a disk antenna on Lots 15 and 16, Block 127. Mr. Armstrong stated this antenna would receive TV programs from New York via satellite and such programs would be available to Cable TV subscribers on the basis of an additional monthly fee. Commissioner Manchester moved, seconded by Commissioner Carter, to set a Public Hearing on this matter for 8:00 p.m., May 24, 1978. Motion was approved unanimously.

REQUEST FOR APPROVAL OF DAY CARE CENTER Shirley Maestas advised the Commission she wants to establish a day care center on Lot 12, Block 119. The center will accommodate twelve, two to five year old children. Ms. Maestas advised that she has already been licensed by the State to operate such a facility and she has already begun to clear and improve the property. A Public Hearing on this request was set for 8:15 p.m., May 24, 1978.

REVIEW OF PLAT FOR ROCK CREEK MEADOWS SUBDIVISION LOCATED WITHIN ALAMOSA COUNTY Commissioner Keller explained that the Alamosa County Planning Commission had requested the City of Alamosa to review the plat of a proposed subdivision located about 2½ miles south of the City. Commissioner Archibald inquired as to what type of water and sewer facilities will be used to serve the property. Commissioner Keller stated the property owners propose to convert existing irrigation water rights on the property to domestic use and that individual wells will be used on the larger lots. Sewage disposal will be to septic tanks on individual lots. Chairman Sheridan stated he believed some of the area should be designated for recreational uses and Commissioner Carter agreed. The Commission instructed the secretary to send a letter to the Alamosa County Planning Commission stating that the Alamosa City Planning Commission has no objection to the proposed subdivision, but does recommend that the developer be required to provide an area for recreational purposes.

ADJOURNMENT Chairman Sheridan adjourned the meeting at 9:52 p.m.

1405 Hunt Ave Conversion of a Non-conforming Use Request



1. View from front property line looking west



2. View of north property line looking west



3. View of west (rear) property line looking north



4. View of side property line looking east



Strategy B – The City of Alamosa plays a leadership role in economic development in the city.

Strategy C – Consider options for staffing an economic development position within the structure of the city government.

Strategy D – Establish a city funding strategy for economic development.

Strategy E – Improve city communications with economic development entities and local governments in the San Luis Valley and expand city participation in regional events and meetings.

Strategy F – More effectively promote the federal, state, regional and local incentives, funding tools and resources that are available to existing and prospective businesses.

Strategy G – Improve communications and coordination between the city and Alamosa County by working together on key projects such as improved air service, coordination on land use and infrastructure around the city, and economic growth initiatives and projects.

BUSINESS SUPPORT AND RETENTION

Although new businesses and industry are needed and desired, there is a tangible need to support businesses that already exist as they grow or face challenges staying in business. This is an area where coordination with local and regional economic organizations will provide local businesses with the support they need while playing to each organization's strengths and preventing duplication of efforts.

The San Luis Valley Small Business Development Center (SLV-SBDC) is part of the Colorado Small Business Development Center Network and offers services including one on one trainings and workshops for small business owners and entrepreneurs wishing to start or grow a business in the valley. There is a need to better position the SLV-SBDC and to strengthen the services that the center offers so that they can be offered more broadly and more people know about the services that are available. This may entail reorganizing the small business center. Some of the more successful small business development centers in rural Colorado have located at and been directly engaged with the local colleges or university.

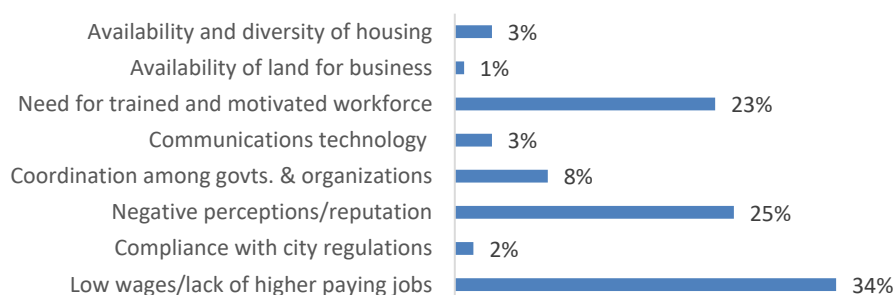
In order to provide appropriate support, there must be an understanding of what specific types of assistance are needed. There are already a number of resources available to local businesses. Surveying local business owners will help narrow down where there are gaps, whether business owners are aware of current resources, and where the city can assist.

There are many jobs in healthcare, education and other professional sectors in Alamosa, yet employers find that recruiting professional employees is a challenge. When asked what the most significant economic challenges are for Alamosa, 23% of participants at the Community Vision Workshops identified the need for a trained and motivated workforce.

There are two higher education institutions in Alamosa, Adams State and Trinidad State Junior College, as well as the Alamosa Workforce Center and a number of government and non-profit partners that the city can work with to help address the need for a trained workforce. This includes developing specialized training programs, providing job skills development and linking employers with potential employees.

Trinidad State Junior College (TSJC) and Adams State University both have programs that train students for local jobs. TSJC offers a nursing program that supplies qualified nurses for the local healthcare industry. TSJC has also proven very accommodating to new industries coming to the area. When solar farm developers needed trained welders TJSC developed a welding program. Adams State provides a wide range of bachelor's degrees and recently expanded its masters programs to include a Master of Public Administration.

Figure 18. What are the most significant economic challenges for Alamosa? (top 2) - Community Vision Workshop



GOAL ED.2 – RETAIN EXISTING BUSINESSES ACROSS ALL SECTORS AND HELP THEM ADAPT AND EXPAND.

Strategy A – Strengthen the business retention and support services offered by existing business development and support organizations and/or reorganize the resources to provide more extensive services and to promote these services more broadly. Services would include:

- business plans
- financial forecasts
- feasibility analyses
- marketing strategy
- financing
- utilizing incentives

Strategy B – Support business-to-business networking and collaborative marketing.

Strategy C – Encourage and support business workshops, individual trainings and mentorships.

Strategy D – Strengthen access to funding for business expansion and training.

Strategy E – Communicate and promote business-support services to the business and entrepreneur community.

Strategy F – Survey businesses and visit them regularly to better understand the business base and identify resources needed to provide assistance for successful retention, expansion, creation and attraction of jobs.

Strategy G – Develop business incubator space where entrepreneurs can test ideas to start new businesses and existing businesses can develop new products.

Strategy H – Leverage the educational programs at Alamosa School District, Adams State University and Trinidad State Junior College to engage directly in local businesses.

Strategy I – Utilize the services of the Colorado Workforce Center to recruit employees and fill positions at local businesses and organizations.

Strategy J – Develop strategic partnerships between economic development entities and base industry sectors such as agriculture, healthcare and tourism.

Strategy K – Support and encourage professionals and entrepreneurs who work from home:

- Continue to work in partnership with telecommunications companies and organizations to improve internet and cellular phone infrastructure.
- Create a directory of freelance professionals, mobile workers and telecommuters and encourage networking among them.
- Encourage the development of co-working facilities that include offices and conference room facilities that can be rented on an as-needed basis.

GOAL ED.3 – IMPROVE THE PROFESSIONALISM, KNOWLEDGE, AND ABILITIES OF THE LOCAL WORKFORCE.

Strategy A –Develop workforce and entrepreneurial training programs that target specific workforce needs and promote these programs to businesses, entrepreneurs and public schools.

Strategy B – Work with economic development and education partners to establish education and training programs that align with job opportunities.

Strategy C – Increase adult education opportunities to expand adult literacy, provide primary and secondary education opportunities and career building.