



## MEMORANDUM

P.O. Box 4100 ♦ FRISCO, COLORADO 80443

TO: Planning Commission

FROM: Emma Heth, Planner II

RE: Work session to discuss potential amendments to Town Code to comply with requirements for certification as an International Dark Sky Community and promote responsible lighting practices

DATE: June 19, 2025

### **Summary**

Before the Planning Commission on June 19, 2025, is a work session to discuss proposed modifications to Chapter 180 of the Code of Ordinances of the Town of Frisco, Colorado. Specifically, changes are in response to Town Council direction to pursue certification as an International Dark Sky Community and community feedback that requests more responsible lighting practices.

Lighting is addressed in both §180-6.16. Outdoor lighting and §180-6.19. Signs of the Town Code. Staff is requesting the Commission review the proposed modifications to the Code (Attachment 1) in association with accompanying Attachment 2 which outlines minimum requirements by DarkSky International to become a certified International Dark Sky Community. At the June 19<sup>th</sup> meeting, Staff requests Commissioners provide feedback regarding:

- A. Proposed modifications: Staff is seeking input on all changes to ensure the Commission finds they align with the Town of Frisco's character and goals. Specifically:
- Does the Planning Commission support making the minimum changes to achieve Dark Sky Community certification, or recommend including additional requirements beyond the minimum? If they support additional requirements, what feedback does the Commission have about:
    - Limits on light trespass at the property line?
    - Requirements for seasonal and festoon lighting?
    - Imposing limits on interior lighting seen past property lines?
  - Does the Planning Commission recommend any elements that should be added or removed?

- Does the Planning Commission want to keep design requirements for pole lighting, including:
    - “Outdoor light fixture and light pole designs must be compatible with Frisco’s small town character and be aesthetically compatible with the site and structures on which they are mounted.”
    - “Shoebox style light fixtures are not permitted.”
  - Does the Planning Commission want to see lighting plans with the review of the Major Site Plan, or would they support Staff reviewing lighting at the time of building permit?
- B. Preferred next steps: Does the Planning Commission want to have another work session on modifications by themselves, or should Staff move forward with a work session with Town Council to discuss modifications?
- Does the Commission want to have a joint work session with Council to discuss proposed modifications?

### **Background**

Local dark sky advocates reached out to Town staff in 2023 to encourage the Town to consider pursuing an International Dark Sky Community certification through DarkSky International. On March 26, 2024, Town Council held a work session to provide Staff direction regarding pursuing an International Dark Sky Community certification through DarkSky International. At the work session, Council directed Staff to begin pursuing certification. Over summer 2024, Planning Staff submitted an application to be entered into the pipeline for certification. On August 7, 2024 the Town received written confirmation that we are eligible to continue in the International Dark Sky Community application process.

On October 8, 2024, Town Council approved a letter of support to apply to the [Colorado Dark Sky Certification Mentor Program](#) through the CO Tourism Office and DarkSky Colorado. The Town’s application to the program was selected for the program on November 1. Town staff worked with our assigned mentor, Mark Laurin, to work toward certification from December 2024-May 2025. Staff held another work session with Town Council on January 28, 2025, during which the Council expressed continued support for the effort. Staff anticipates submitting the application for certification in 2026 if all steps are completed and supported by Council.

One of the requirements for certification as an International Dark Sky Community is to adopt a comprehensive lighting policy that meets the minimum standards for permanent lighting installations established by DarkSky International. See the minimum standards outlined in Attachment 2: DarkSky International Comprehensive Lighting Policy Checklist.

Together with mentor Mark Laurin, Staff convened a Steering Committee composed of 10 community members, including two Planning Commissioners. At the Steering Committee’s May

20, 2025 meeting, members discussed potential changes to the outdoor lighting code. The Steering Committee members provided the following feedback:

- Some members recommended eliminating text that is not required by DarkSky International and only following the minimum requirements. They expressed concerns around enforcement and overreach of what the Town should require.
- Some members supported the proposed changes and recommended adding further requirements, including curfews on indoor light sources seen from the property line and fixtures with frosted glass or reflective elements that refract light upward despite a light source being fully shielded. Most Steering Committee members did not support requirements for interior lighting.
- Members recommended allowing any type of seasonal lighting, but with a curfew.
- Members recommended turning off the festoon lights over the intersection at 4<sup>th</sup> Ave and Main Street to show the Town's commitment to dark skies.

### **Analysis:**

Understanding the complexity of lighting terms that have not been used within the Town of Frisco previously, Staff has provided definitions of proposed terms in Attachment 3 to support comprehension.

The proposed changes to §180-6.16. Outdoor lighting and §180-6.19. Signs keep some portions of the existing code while proposing the following significant changes:

- A maximum correlated color temperature (CCT) of 3000 Kelvin.
- Clear limits on light trespass beyond property lines (measured in lux).
  - The current code requires “no direct light emission onto adjacent properties” but does not clarify how this should be measured.
- Defined curfew hours for light trespass, public lighting, seasonal lighting, festoon lighting, and illuminated signage. All properties are to comply within 1 year of adopting the ordinance.
- Limits on total illumination allowed on a property (measured in lumens).
- Clear requirements for motion-sensor security lighting.
- Limits on luminance levels and requiring adaptive controls for signage.
- Compliance for all fixtures within 10 years of adopting the ordinance.

Other proposed code text amendments include:

- Pole lights limited to 12-20 feet in height depending on residential use, parking areas adjacent to residential use, or non-residential use.
- Exemptions for historic fixtures that are consistent with the historic character of a structure in the Historic Overlay.
- Requirements for all publicly owned lighting, including streetlights, park lighting, and outdoor recreation/athletic field lighting.
- Exemptions for seasonal lighting (allowed for part of the year) and festoon lighting (allowed year-round for specific uses), with a curfew and other limits.

- Changes to the submittal process and requirements to comply with the proposed requirements.

Below is a comparison of the existing code in §180-6.16. Outdoor lighting and §180-6.19. Signs, code text changes proposed at this time, and requirements for certification as an International Dark Sky Community.

<b>Feature</b>	<b>DarkSky International Minimum Requirement</b>	<b>Town of Frisco Existing Code</b>	<b>Town of Frisco Proposed Code</b>	<b>Goes Beyond DarkSky Minimum?</b>
<b>Time for Compliance</b>	10 years for all private lighting to comply	N/A	10 years for all private lighting to comply	Matches
<b>Fixture Shielding</b>	Restriction on unshielded lighting required	Fully shielded required for all fixtures	Fully shielded required for all fixtures; historic fixtures, festoon, seasonal, and field lights exempt	Exceeds
<b>Color Temperature (CCT)</b>	≤ 3000K	None	≤ 3000K universally, including string lighting and exempt fixtures	Matches
<b>Light Trespass Limits</b>	Not required	Fixtures shall be positioned so there is no direct light emission onto adjacent properties.	≤1 lux (residential), ≤9 lux (nonresidential); stricter enforcement and measurement protocols	Exceeds
<b>Curfew Hours</b>	Required for signs, public lighting, and outdoor field lighting	None	10:00 p.m.–7:00 a.m. for all uses to either extinguish, shield, or dim lights; adjusted curfew based on business or use hours; 1 year to comply	Exceeds
<b>Total Lumen Allowance</b>	Required	None	Strict site limits per acre (residential) and per task (nonresidential)	Matches
<b>Motion Sensors / Controls</b>	Adaptive controls required for public lighting, signs	Encouraged but not required	Required for motion-activated security lighting, signs, and public facilities	Matches

<b>Feature</b>	<b>DarkSky International Minimum Requirement</b>	<b>Town of Frisco Existing Code</b>	<b>Town of Frisco Proposed Code</b>	<b>Goes Beyond DarkSky Minimum?</b>
<b>Lighting Exemptions</b>	Minimal; must be justified and not broadly applied	Narrow exemptions (flags, holiday lights, architectural lighting, streetlights)	Narrow exemptions (e.g., emergencies, historic fixtures, seasonal lighting)	Matches
<b>Historic Fixtures</b>	Allowed with restrictions	No exemptions	Exempt from requirements, with limits on brightness ( $\leq 1000$ lumens), CCT $\leq 3000$ K, and subject to approval	Matches
<b>Seasonal Lighting</b>	Allowed for limited time and under controls	Exempt	Limited dates (Oct 15–Apr 1); curfew enforced	Matches
<b>Festoon Lighting</b>	Allowed with limitations	Not addressed	Limits on allowed tasks, color, and height; curfew enforced	Exceeds
<b>Public Street Lighting</b>	Must be shielded, dimmed/off during curfew	Exempt except for maximum height (30-40 ft)	Shielded, height capped (30–40 ft), dimmed or off by 10pm. Subject to approval based on public safety and public health hazards.	Matches
<b>Outdoor Sports Fields</b>	Exempt from other requirements, with strict controls and curfews	In parks, “sharp cut off” fixtures are required when there is an established need for uplight (such as a baseball park).	Adjustable illuminance, cutoff fixtures, timer shutoffs, exempt from lumen cap	Matches
<b>Prohibited Lighting Types</b>	Flashing, neon, lasers, upward beams	Blinking, flashing, exposed strip lighting, neon, laser, beacons or searchlights not for rescue operations.	Explicitly bans unshielded, neon, lasers, searchlights, and building outline lighting	Exceeds

Feature	DarkSky International Minimum Requirement	Town of Frisco Existing Code	Town of Frisco Proposed Code	Goes Beyond DarkSky Minimum?
Sign Lighting	Limit on light levels, curfew required	Fully shielded, down-directed. Dimming required for electronic/digital signs. Recommended controls and curfews.	Limit on light levels, curfew enforced, adaptive controls required. Illumination type allowed by zoning.	Exceeds (adaptive controls)

**Staff Recommendation:**

Staff recommends that the Planning Commission provide guidance on proposed changes to the code sections relevant to outdoor lighting. Specifically:

- A. Should the Town include changes beyond the minimum to meet DarkSky International's certification requirements? The recommended changes are based on what Staff has heard from community input and Planning Commission past comments. Staff supports the changes proposed but does have concerns around enforcing the requirements. Enforcement would require staff time at night and some understanding of the technical language and measurements proposed. The Planning Commission can also consider additional amendments not included in the proposed code text at this time, such as limits on interior lighting or frosted glass diffusers.
- B. Does the Commission support limits for light trespass at the property line, and whether that is an element that the Town should enforce? Staff is including light trespass requirements as a proposal for the Planning Commission to consider but would support the Planning Commission's decision to include or exclude this requirement.
- C. Are design requirements for pole lighting effective? Staff has had trouble interpreting requirements for design to be "compatible with Frisco's small town character" and prohibiting "shoebox style light fixtures." Staff suggests either removing these design requirements or creating clearer criteria for pole light design.
- D. Does the Commission support limiting the use of seasonal lighting and festoon lighting in the Town and whether the proposed modifications align with the direction the Town should go? Staff supports limits on seasonal and festoon lighting, especially curfews given common complaints about lights left on overnight.
- E. Does the Commission support proposed changes to the submittal and review process for lighting? Staff recommends the Commission provide feedback on whether they find it

important to review lighting at Major Site Plan review. Staff notes that delaying review of lighting to the time of building permit may make sense given that lighting details are often changed after Major Site Plan approval. Staff suggests having applicants submit an affidavit with the Major Site Plan acknowledging that they understand the requirements and that they will show compliance at building permit.

- Should a signed compliance statement be submitted at final inspection to confirm that the installed lighting meets requirements?
- F. Preferred next steps. Does the Commission want to have another work session on modifications by themselves, or should Staff move forward with a work session with Town Council to discuss modifications?
- Does the Commission want to have a joint work session with Council to discuss proposed modifications?

**Attachments:**

Attachment 1: Frisco Town Code, Chapters 180-6.16 and 180-6.19 Proposed Modifications with Staff Comments

Attachment 2: DarkSky International Comprehensive Lighting Policy Checklist

Attachment 3: Common Light Measurement Terms