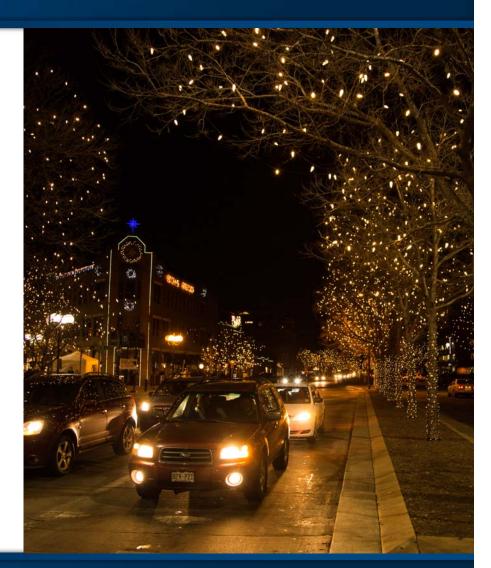




Presentation Overview

- 1. How do we regulate?
- 2. What do we regulate?
- 3. What's coming next?





How the City Regulates Lighting

Multiple departments:

- Planning Services
- Building Services
- Utilities

Multiple codes:

- Land Use Code
- Residential Code
- Energy Conservation Code
- Larimer County Urban Area
 Street Standards





How the City Regulates Lighting

	Residential Code	Energy Code	Land Use Code
Single-Family Detached	X		
Single-Family Attached	X		
Duplex	X		
Multi-Family		X	X
Commercial		X	X



What the City **DOES** Regulate

Light Placement:

- Buildings, parking lots, walkways, plazas, landscape areas
- Spillover lighting (footcandles)
- Impacts to adjacent properties
- Impacts to natural features

Light Fixtures:

- Efficiency
- Shielding
- Glare
- Brightness

Operations

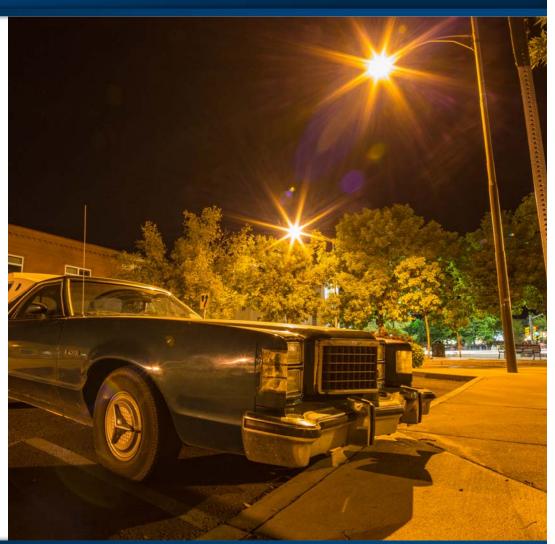
- Timing
- Dimming



What the City DOES NOT Regulate

Light Fixture Specifications:

- Color temperature (Kelvin)
- Lumens
- Wattage
- Pole height
- Specific technology (e.g., LEDs)





Land Use Code Requirements

*Commercial & Multi-Family Projects

Land Use Code Section 3.2.4 – Site Lighting

- Lighting evaluated in the development review process
- Applies to lighting for:
 - Buildings
 - Parking lots
 - Walkways
 - Plazas
 - Landscape
- Ensure that functional/security needs are met without adversely impacting adjacent properties & neighborhood
- Considers light source, level of illumination, hours of illumination & need for illumination



Land Use Code Requirements

- Minimum & maximum foot-candle levels depending on location
- LED lighting limited to 1,000 candela/sq. meter (max)
- Light fixtures must be:
 - Concealed
 - Fully shielded
 - Full cut-off
- Up-light, spill-light, glare, contrast & brightness should be minimized
- Natural areas/features should be protected from light spillage





Energy Code Requirements

*Commercial & Multi-Family Projects

- Applies to:
 - Building façades
 - Parking lots & garages
 - Canopies (sales and non-sales)
 - Outdoor sales areas
- Requires:
 - Automatic controls to dim lighting by at least 50% two hours after normal business closing
 - Outdoor lighting must be turned off 30 minutes after sunrise



Residential Code Requirements

*Single-Family Detached, Attached & Duplex Housing

Dark Night Skies:

- Light should be shielded so the lamp itself is not visible beyond the property line
- All exterior lighting fixtures (new buildings) shall have the "Fixture Seal of Approval" from the International Dark-Sky Association (IDA)
- Lighting placement shall conform to IDA Model Lighting Ordinance for Lighting Zone 1 (low ambient lighting):
 - Lighting may be used for safety and convenience but it is not necessarily uniform or continuous
 - After curfew, most lighting should be extinguished or reduced as activity levels decline



Residential Code Requirements

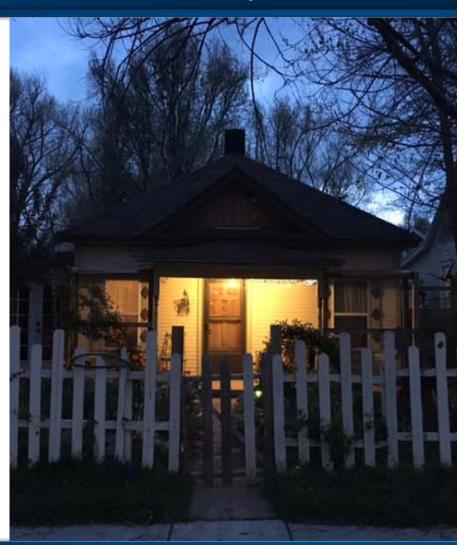
*Single-Family Detached, Attached & Duplex Housing

Energy Efficiency:

 A minimum of 75% of light fixtures should be high efficiency lamps

OR

 A minimum of 50% of lighting fixtures shall contain only LED lamps





What's Coming Next?



- Currently exploring updates to:
 - Land Use Code
 - Energy Code & Residential Code
- Summer 2016:
 - Evaluate best practices & latest technology
- Fall/Winter 2016:
 - Revise code standards as needed



What's Coming Next?



- Focus of potential updates:
 - Align various codes to reduce confusion & conflicts
 - Customize requirements based on land use context
 - Ensure requirements match new technology and best practices
 - Consider intensity, color temperature and other specifications
 - Consider efficiency & lifecycle costs
 - Reduce light pollution





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https://www2.municode.com/library/co/fort_collins/codes/land_use

http://www.fcgov.com/building/codes.php