

Case 1-ZTA-06
Proposed Outdoor Lighting
Regulations
November 13, 2006

1-ZTA-06
Proposed Outdoor Lighting Ordinance

Scope and purpose

Objective is to regulate the design of outdoor lighting structures and systems in new site development, for the purpose of:

1. *Requiring adequate outdoor lighting;*
2. *Minimizing glare;*
3. *Enhancement of night vision and security*
4. *Minimizing light "spillage"*
5. *Minimizing the effects of "skyglow"*
6. *Encouraging energy conservation through use of efficient technologies.*

The draft ordinance addresses parking lots, gas station canopy/apron areas, outdoor display areas, building-mounted lighting, landscape lighting, athletic field and outdoor arenas, private streets, security lighting and signs.

1-ZTA-06 Proposed Outdoor Lighting Ordinance

- The ordinance would be a new section of the Zoning Ordinance (Sec. 29-30.1) following the Off-Street Parking and Loading Regulations (Sec. 29-30)
- Ordinance applies to commercial, institutional and multiple-family residential installations on new buildings, sites, and new parking lots; existing developed properties are exempt unless redevelopment or major additions occur
- City public street lighting standards are not addressed at this time - street lighting typically part of subdivision regulations and standard public improvements specifications

1-ZTA-06 Proposed Outdoor Lighting Ordinance

Review of existing Columbia ordinances

City of Columbia Zoning Ordinance

- *All commercial planned districts (O-P, C-P, M-R, M-P) require development plans to include "The proposed type and location of all on-site lighting."*
- *Section 29-30(h)(5) Off-Street parking and Loading Regulations: "Lights shall be required for all parking areas intended for night use. Lights shall be arranged or shielded to direct illumination away from residences and from public streets and other public areas."*

1-ZTA-06

Proposed Outdoor Lighting Ordinance

The proposed ordinance will require submittal of lighting plans for all new developments requiring outdoor site lighting, to consist of:

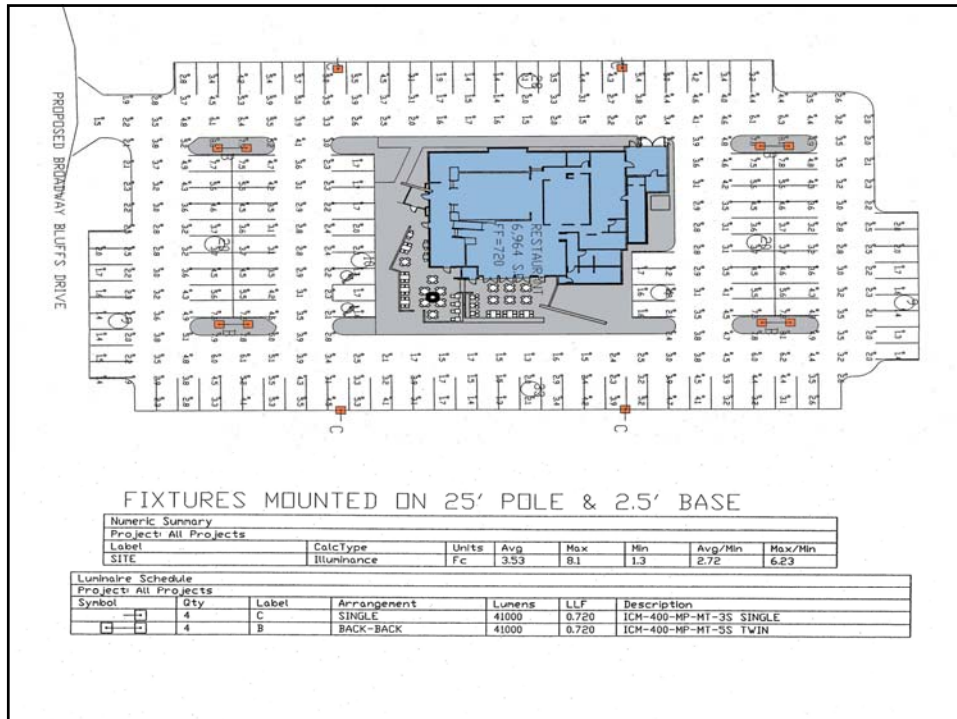
- A. A photometric layout;
- B. "Cut sheets" of lighting specifications;
- C. Certification of plan compliance with standards.

1-ZTA-06

Proposed Outdoor Lighting Ordinance

Regulatory parameters

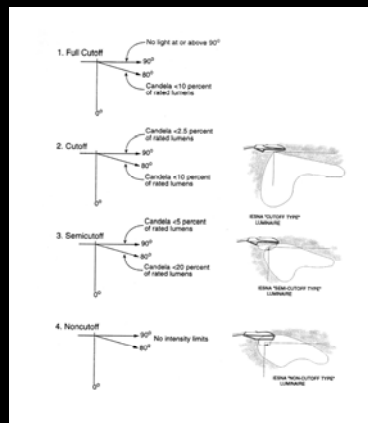
- ✓ Locations of light fixtures for building-mounted lighting
- ✓ Maximum (0.5 fc if residential or 2.0 fc if non-residential) at property lines) and minimum lighting levels
- ✓ Uniformity ratio (maximum to minimum)
- ✓ Hours of operation ("lighting curfew") for athletic fields and stadiums
- ✓ Maximum height of fixtures (25' pole-mount + 3' pedestal foundation; exceptions may be considered case by case for large sites in non-residential areas)
- ✓ Cut-off angles and shielding requirements
- ✓ Color rendering index

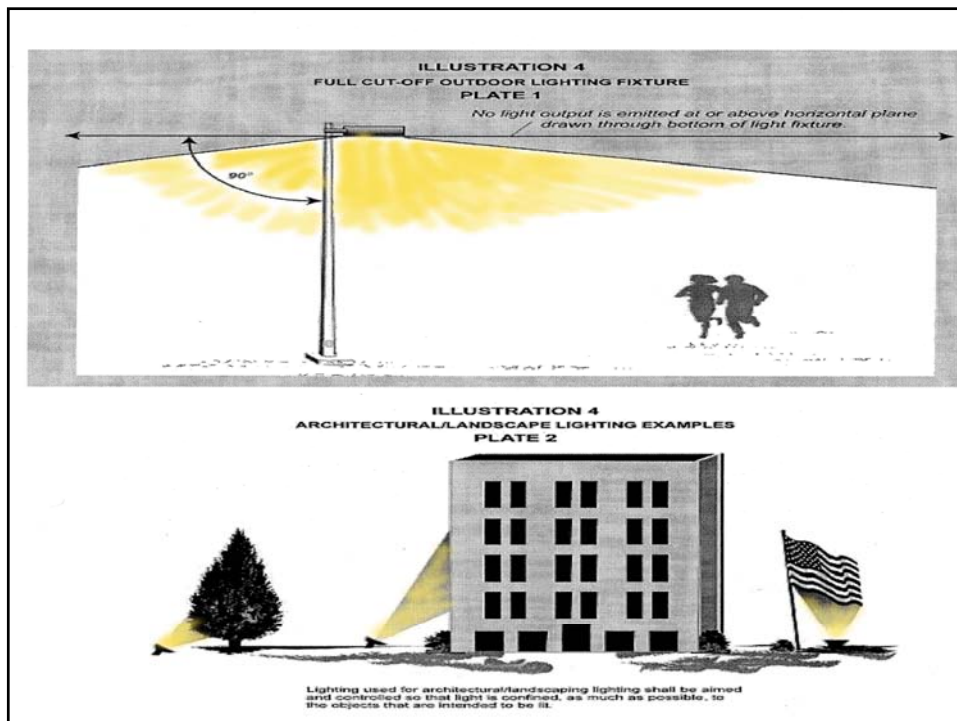
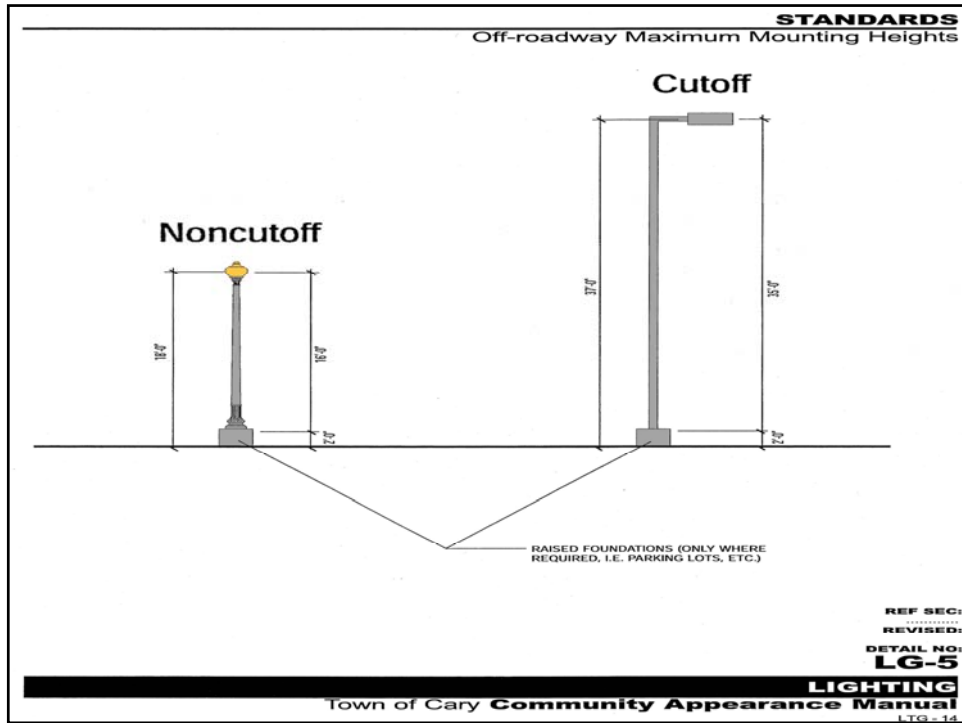


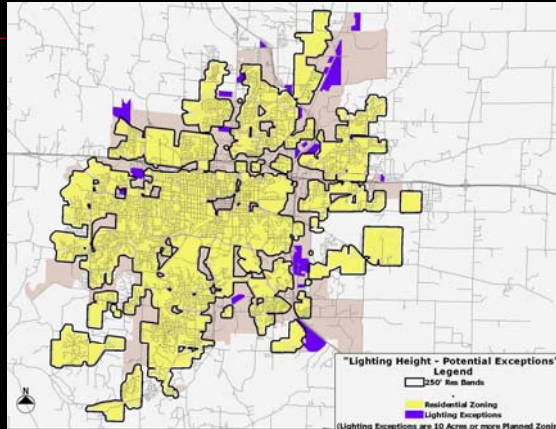
1-ZTA-06 Proposed Outdoor Lighting Ordinance

Figure 29.30.1
Lighting "Cutoffs"

Illustrates the definition
of lighting "cutoff"
designs







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Recommendations

- After hearing and five work sessions, Planning and Zoning Commission voted 7-1, one absent, to recommend ordinance.
- Law Department has made modifications to ordinance to fit standard code format and to achieve legal consistency.
- Staff has identified a need for taller athletic field maximum light fixture height (70'; 80' for standard baseball fields rather than 60').
- Staff may have difficulty applying standards that vary according to "light" or "dark" surroundings (applicable to service stations and lighting of buildings and monuments).