

City Council Introduction: **Monday**, August 25, 2008
Public Hearing: **Monday**, September 8, 2008, at **1:30 p.m.**

Bill No. 08R-201

FACTSHEET

TITLE: MISCELLANEOUS NO. 08009, a text amendment to the City of Lincoln Design Standards, requested by the Director of Planning, relating to Outdoor Lighting Standards.

SPONSOR: Planning Department

BOARD/COMMITTEE: Planning Commission
Public Hearing: 08/13/08
Administrative Action: 08/13/08

STAFF RECOMMENDATION: Approval.

RECOMMENDATION: Approval (9-0: Cornelius, Sunderman, Carroll, Partington, Taylor, Gaylor Baird, Larson, Esseks and Francis voting 'yes').

ASSOCIATED REQUESTS: Change of Zone No. 08039 (08-116).

FINDINGS OF FACT:

1. This proposed text amendment to the City of Lincoln Design Standards was heard in conjunction with Change of Zone No. 08039, proposed text amendments to the Zoning Ordinance.
2. This is a text amendment to the City of Lincoln Design Standards to amend and to consolidate the different sections that relate to outdoor lighting into one chapter. The changes to the proposed standards for outdoor lighting on commercial uses will make them more uniform and less subjective. The new standards are more quantitative and measurable, add definitions, are more uniform in the various commercial districts and are extended to include residential lighting beyond parking lots and recreation areas. A summary of the proposed changes is found under number 9 on pp.4-5.
3. The staff recommendation of approval is based upon the "Analysis" as set forth on p.3-5, concluding that the proposed text amendment is in conformance with the Comprehensive Plan. The proposed outdoor lighting standards should help alleviate conflicts between commercial lighting and residential areas, reduce glare and conserve energy. The staff presentation is found on p.6-7.
4. Testimony in support is found on p.7-8, and the record consists of a letter in support from the Lincoln Neighborhood Alliance (p.9).
5. There was no testimony in opposition.
6. On August 13, 2008, the Planning Commission agreed with the staff recommendation and voted 9-0 to recommend approval.
7. On August 13, 2008, the Planning Commission also voted 9-0 to recommend approval of the associated text amendment to Title 27 (08-116).

FACTSHEET PREPARED BY: Jean L. Preister

DATE: August 18, 2008

REVIEWED BY: _____

DATE: August 18, 2008

REFERENCE NUMBER: FS\CC\2008\MISC.08009+ Text

LINCOLN/LANCASTER COUNTY PLANNING STAFF REPORT
for AUGUST 13, 2008 PLANNING COMMISSION MEETING

PROJECT #: Change of Zone No.08039 and ***Miscellaneous No.08009***

Note: This is a combined staff report for related items. This report contains a single background and analysis section for all items.

PROPOSAL: **To amend Title 27, Zoning Ordinance and the City of Lincoln Design Standards to adopt various outdoor lighting amendments.**

CONCLUSION: The proposed text amendment is in conformance with the 2030 Comprehensive Plan. The proposed outdoor lighting standards should help alleviate conflicts between commercial lighting and residential areas, reduce glare, and conserve energy.

RECOMMENDATION:

Change of Zone #08039
Miscellaneous #08009

Approval
Approval

GENERAL INFORMATION:

HISTORY:

July 2, 2008 Briefing with the Planning Commission on the proposals.

May 28, 2008 Meeting with lighting contractors.

May 5, 2008 Briefing with the Illuminating Engineering Society of North America (IESNA) local chapter.

March 5, 2008 Briefing with Urban Design Committee

February 14, 2008 Meeting with Neighborhood Roundtable

February 2008 Meeting with NeighborWorks

January 23, 2008 Briefing with commercial Realtors

January 22, 2008 Briefing with the Lincoln Independent Builders Association (LIBA).

January 2008 Olsson Associates submitted their final report.

January 2007 Olsson Associates submitted their draft report.

The Outdoor Lighting Advisory Task Force met on numerous occasions between August 2005 and July 2007.

- April 2005 The City issued a “Request for Proposal” for a qualified lighting research firm to assist in the preparation of a comprehensive outdoor lighting study.
- March 14, 2005 Miscellaneous #05001 to add a new Chapter 3.100 entitled “Outdoor Lighting” to the City Design Standards was approved by the City Council.
- Dec. 23, 2004 Application submitted by the Near South Neighborhood Association to amend Chapter 3.00, Section 8 of the City Design Standards pertaining to outdoor night time lighting.

COMPREHENSIVE PLAN SPECIFICATIONS:

The most intensive commercial uses, such as restaurants, car washes, grocery stores, gasoline/ convenience stores and drive thru facilities should be located nearer to the major street or roadway and furthest from the residential area. Citizens of the community have become increasingly concerned about “light pollution” and its affects upon neighborhoods and the environment. Lighting, dumpsters, loading docks and other service areas should be shielded from the residential area. (p.48)

Revise standards to ensure that residential and commercial development more efficiently provide night time lighting, minimizing glare and without intruding on adjacent uses or casting significant lighting skyward.(p.72)

Design criteria for Community Parks: Design standards for field and parking lot lighting should seek to minimize glare, light spill-over onto adjacent properties, and impacts on the dark night sky. (p.135)

ANALYSIS:

1. The purpose of this text change is to consolidate the different sections in the City Design Standards that relate to outdoor lighting into one chapter and to revise text in the zoning ordinance accordingly. Currently, standards for outdoor lighting can be found in five chapters within the City Design Standards.
2. Poorly designed outdoor lighting can cause glare, light trespass and energy waste. The intent of the proposed outdoor lighting standards is to minimize glare, reduce light trespass and conserve energy while maintaining a safe environment. Careless lighting practices can have serious impacts on public safety. Glare and excessive contrast caused by poorly designed lighting compromises everyone’s ability to see; especially the elderly.
3. It has been estimated that poorly designed lighting fixtures commonly waste 30% to 40% of the electricity they use by over-lighting the intended area and unnecessarily illuminating the surrounding area. (source: The Model Wisconsin Exterior Lighting Code, David S. Liebl, Faculty Associate, UW-Madison)
4. The City has had lighting standards since the 1970's. In 1977, in response to energy conservation concerns, the City adopted street lighting standards that required illumination levels to be 70% of the levels recommended by the American National Standards Institute for arterial streets. Around 1980, the City adopted Environmental Performance Standards

for the new commercial and industrial districts that included a section on outdoor lighting. Parking lot lighting standards were adopted in the mid 1980's. Modified parking lot lighting standards and new outdoor recreational lighting guidelines were adopted in 1994. In 2005 a new chapter, 3.100 Outdoor Lighting, was added to the City Design Standards in response to concerns of the Near South Neighborhood Association. This new chapter addressed light trespass from non residential uses abutting residential uses. At that time, Planning staff recommended that a comprehensive review of the lighting standards was needed.

5. Based on goals established in the Comprehensive Plan the City commissioned a comprehensive Outdoor Lighting Study. The study was to examine current lighting standards, observe and record outdoor lighting practices in the city, review standards in other communities and make recommendations. A task force was formed, whose members represented a cross section of the community. Members represented business groups, neighborhood groups and "dark-sky" advocates. The task force met over 25 times. The entire Outdoor Lighting Study can be found on the Planning Department's web site. (www.lincoln.ne.gov/city/plan/study/light.htm)
6. Most complaints deal with overly bright lighting from vehicle display lots, convenience store canopies, unshielded security lights and some of the City's decorative street lights. The proposed lighting standards addresses these issues through maximum illumination levels and requirements that fixtures over a certain brightness be "cutoff" type and be directed downward.
7. In the past, standards for outdoor lighting on commercial uses have been somewhat subjective and regulated through special permits or use permits. The proposed standards will be more uniform and less subjective. The new standards are more quantitative and measurable, add definitions, are more uniform in the various commercial districts and are extended to include residential lighting beyond parking lots and recreation areas.
8. The proposed standards eliminates the uniformity ratio for parking lots. This should result in easier design and less cost to install and operate.
9. Listed below is a summary of the proposed changes:
 - A. Outdoor vehicle display areas = Not to exceed 20fc average maintained; 4 fc after business hours.
Within 500 feet of residential zoning = Not to exceed 20fc average maintained and full cut off.
 - B. Canopies = Not to exceed 20fc average maintained; 4 fc after business hours
Within 500 feet of residential zoning = Not to exceed 20fc average maintained and full cut off or mounted so that the bottom of the lens is recessed or flush with the bottom surface of the canopy.
 - C. All other Class I (Commercial) not to exceed average maintained of 6 fc. After business hours not to exceed 4 fc average maintained.

- D. Class II (accent/decorative) = may exceed 4050 lumens and be non-cutoff in design, but the field of angle of the lamp may not extend beyond the surface being illuminated.
- E. Supplemental street lighting (decorative) shall not exceed 4050 lumens unless it is within a cutoff luminaire.
- F. Off street parking = Not to exceed 4fc average maintained.
- G. Recreational = lights off at midnight, but may stay on till 12:30 am to conclude a game.
- H. Light trespass & glare =light trespass not to exceed 2fc measured vertically at the property line or 0.5fc measured horizontally if non-residential abutting residential. Exterior building surfaces shall not exceed an average surface brightness of 750 nits.
- I. General = No illumination source shall exceed initial output of 4050 lumens (50 watt high pressure sodium or 200 watt incandescent lamp) unless it is within a cutoff or full cutoff luminaire and the central part of the beam directed downward.
- J. Consolidates existing parking lot, recreational and street light standards into one section. Eliminates the need to look at five different sections in the Design Standards.
- K. Updates language, definitions and references for lighting.

Prepared by:

Tom Cajka
Planner

DATE: July 29, 2008

APPLICANT: Marvin Krout, Planning Director
Lincoln/Lancaster County Planning Department
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Lincoln, NE 68508

CONTACT: Tom Cajka
Planner
Lincoln/Lancaster County Planning Department
(402) 441-5662

**MISCELLANEOUS NO. 08009
and
CHANGE OF ZONE NO. 08039**

PUBLIC HEARING BEFORE PLANNING COMMISSION:

August 13, 2008

Members present: Esseks, Sunderman, Partington, Gaylor Baird, Larson, Taylor, Cornelius, Francis and Carroll.

Ex Parte Communications: None.

Staff recommendation: Approval.

Additional information for the record: **Mike DeKalb of Planning staff** submitted a letter in support from the Lincoln Neighborhood Alliance.

Staff presentation: **Mike DeKalb of Planning staff** explained that this is a change of zone and miscellaneous application to change the design standards relative to lighting in the City. This effort started with the Near South Neighborhood Association application back in 2004 and there is language in the Comprehensive Plan suggesting that the lighting standards be updated. Olsson & Associates was hired as the consultant to do the lighting study. There have been a number of variations of proposed language and meetings have been held with the Mayor's Neighborhood Roundtable, NeighborWorks, and representatives of the Lincoln Independent Business Association. DeKalb believes this proposal represents general agreement between the interested parties.

Marvin Krout, Director of Planning, also explained that this proposal has been in the works for three years in response to the Near South neighborhood concern about the lighting standards, at which time the city did a "band-aid fix" to deal with their issue of light trespass from the canopies in vehicle storage areas and auto sales. This proposal went through a very deliberate process after the lighting study was completed, wherein it was found that the regulations "needed to have major surgery", the ordinance being vague and not understandable. The lighting standards were scattered in different sections of the design standards.

Krout explained further that glare is the focus of this proposal, but there has been an attempt to be conscious about issues of cost. It is also believed that there are some elements included that will end up with some cost and energy savings. The city compromised on the kind of lighting for downward lighting from full cut-off to cut-off lighting where there is more variety and provides better coverage with fewer restrictions. Some of the existing regulations that have been burdensome or more costly have been eliminated.

In addition, Krout advised that the city has received as many or more complaints about the city's lighting as opposed to private lighting, including the LES decorative fixtures in some of the revitalization projects because of the glare from the fixture types that were chosen and the security lighting that LES will lease to people on private property and place on existing poles. LES has

agreed to meet the standard in the future for private development with their security lights and decorative lights.

Francis noted that the Planning Commission received a briefing a few weeks ago and she asked staff to talk about how lower light does not necessarily mean less safety for the public. Krout stated that one of the key issues is that over-lighting a site can be negative in terms of safety because it can be blinding to someone temporarily in the dark. When using bright light sources that are not well-directed, it will create some very bright light and some very dark locations and make it easier to create some hiding spaces in the darker locations. There have been some studies that say there is not a correlation between criminal activity and the level of lighting, and once you go beyond a certain level of extra lighting, it is probably not going to have any effect. There have been studies of some schools that have shut off all lighting and found that the crime rate went down. It is really a case-by-case matter that this proposal suggests be left to the property owner generally. This legislation focuses on the glare issue.

DeKalb added that the task force had representatives from the business community, neighborhoods, Police Department, Parks Department, LES, etc. The staff went very early in this process to a luncheon meeting with LIBA where it was discussed that shielded lighting works much better.

Support

1. Coby Mach testified on behalf of **LIBA** in support. Over the last year the City of Lincoln has gone to extreme measures to meet with LIBA on this issue and he expressed appreciation to Marvin Krout. The first drafts were not very business-friendly; however, the staff incorporated LIBA's ideas and suggestions to reduce some of the costs and performance burdens contained in the original draft. The new standards will create more costs in some areas to the business owner; but, on the other hand, there are parts that will reduce costs and wasted electricity. LIBA will work within these standards and hopes the Commission will be open to suggestions should the new standards need to be amended in the future.

From the public's point of view, Esseks asked Mach to indicate the most important improvements of this change. Mach believes that it would be reducing the standard for parking lot lighting. That is something that will help a neighborhood that abuts a parking lot.

2. Steve Bowen, electrical contractor in Lincoln since 1973, testified in support. He has done a lot of design work in lighting. When this proposal began, there were some things to which he disagreed, but it has been amended enough that he can support it and believes it will definitely make life easier for designers and for owners, e.g. not being required to light the entire parking lot. There are additional expenses involved in some of the design, but he believes it will be an improvement.

3. Erik Hubl, member of **Hyde Observatory Board of Supervisors and Astronomy Club**, testified in support. He also served on the task force. For the past 20 years, he has been involved in working on lighting regulations. Hubl reviewed the history of lighting standards and suggested that the codes and regulations should be considered a "work in process". We have learned that it may not be advantageous to have uniform lighting across an entire parking lot. He agrees with this

proposal to cut back on that thinking. This is a much more comprehensive proposal, pulling aspects together that were scattered throughout the regulations. The task force met for about 1.5 years. There were very active participants. Compromises were made and some disagreements were voiced. He believes this is the best attempt to help slow down stray light because unsafe glare, light trespass and sky glow are a problem.

Hubl went on to state that both the Lincoln Journal and Omaha World Herald have written editorials in support of lighting codes in the past, as well as the Wall Street Journal, indicating that excess light can also have health concerns. There is still a lack of reliable data about light pollution. The waste is enormous, so the shields and directing the light where it needs to shine can reduce the amount of usage.

4. Cedrick Gibb, 7100 Adams, #15, one of the volunteer staff at the Hyde Observatory from 1982-1995, also testified in support.

There was no testimony in opposition.

MISCELLANEOUS NO. 08009

ACTION BY PLANNING COMMISSION:

August 13, 2008

Gaylor Baird moved approval, seconded by Francis.

Carroll noted there has been a lot of time spent on this and he appreciates everyone being involved. The Planning Commission has had several meetings on this issue.

Motion for approval carried 9-0: Esseks, Sunderman, Partington, Gaylor Baird, Larson, Taylor, Cornelius, Francis and Carroll voting 'yes'. This is a recommendation to the City Council.

CHANGE OF ZONE NO. 08039

ACTION BY PLANNING COMMISSION:

August 13, 2008

Larson moved approval, seconded by Francis and carried 9-0: Esseks, Sunderman, Partington, Gaylor Baird, Larson, Taylor, Cornelius, Francis and Carroll voting 'yes'. This is a recommendation to the City Council.

LINCOLN NEIGHBORHOOD ALLIANCE



341 S. 52nd Street
Lincoln, NE 68510

August 12, 2008

Lincoln -Lancaster County Planning Commission
555 South 10th Street
Lincoln, NE 68508

RE: Miscellaneous No. 08009 and Change of Zone No. 08039

Dear Planning Commission Members:

The Lincoln Neighborhood Alliance (LNA) would like to offer its support for the proposed text amendments to the City of Lincoln Design Standards and the Zoning Ordinance relating to Outdoor Lighting (Misc. No. 08009 and Change of Zone No. 08039).

One of LNA's goals is to support neighborhood business districts and the revision of regulations to better integrate new and old businesses with adjacent uses.

This update to the City of Lincoln lighting standards promotes LNA's objective by reducing the light trespass on residences from nearby neighborhood businesses. Furthermore, the new standards minimize glare for increased visibility and safety and will decrease energy costs. This creates a win-win situation for both neighborhoods and businesses.

LNA would like to commend the Planning Department staff for including neighborhoods during the Outdoor Lighting Study process.

Regards,

A handwritten signature in cursive script that reads "Russell F. Miller".

Russell F. Miller
Lincoln Neighborhood Alliance Chairman