ORDINANCE NO. 18579

ORDINANCE ADOPTING PARKING LOT LIGHTING REGULATIONS

WHEREAS, the Mayor and City Council of the City of Joliet has the authority to adopt ordinances and to promulgate rules and regulations that pertain to its government and affairs and protect the public health, safety, and welfare of its citizens; and

WHEREAS, the Department of Public Works typically reviews proposed lighting plans for new commercial and industrial developments; and

WHEREAS, the Mayor and City Council have determined that it is in the City of Joliet's best interest to adopt the Parking Lot Lighting Regulations; and

WHEREAS, the City of Joliet is a Home Rule Municipality under and by virtue of the Constitution of the State of Illinois.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF JOLIET, PURSUANT TO ITS HOME RULE AND STATUTORY AUTHORITY, AS FOLLOWS:

SECTION 1: The Mayor and City Council hereby find that the recitals contained in the preamble to this Ordinance are true, correct and complete and hereby incorporate it into this Ordinance by reference.

SECTION 2: In the event that any provision or provisions, or portion or portions of this ordinance shall be declared to be invalid or unenforceable by a Court of competent jurisdiction, such adjudication shall in no way affect or impair the validity or enforceability of any of the remaining provisions or portions of this ordinance that may be given effect without such invalid or unenforceable provision or provisions, portion or portions.

SECTION 3: All ordinances directly in conflict with the terms of this Ordinance are hereby repealed to the extent of such conflict.

SECTION 4: This Ordinance shall be deemed severable and the invalidity of any portion hereof shall not invalidate the remainder.

SECTION 5: This Ordinance shall be in full force and effect from and after its passage, approval and publication as provided by law.

PASSED this 19th day of December, 2023

Terry D'Arcy
MAYOR

Christa M. Desideiro
CITY CLERK

VOTING YES: Mayor D'Arcy and Councilmen Cardenas, Clement, Guerrero, Hug, Councilwoman Ibarra, Councilman Mudron, Councilwomen Quillman, and Reardon.

VOTING NO: None.

NOT VOTING: None.

Parking Lot Lighting Regulations

1. **Exterior Lighting:** All public and private outdoor lighting installed in the City of Joliet shall be in conformance with the requirements set forth in this:

2. General

2.1. All development shall include provisions for the construction of parking lot lighting facilities in accordance with this Ordinance.

2.2. All lighting shall be installed utilizing Light Emitting Diodes (LED).

2.3. The parking lot lighting plan shall show the location and direction of the pole and mast and the proposed routing of the electric cable duct. The post size, bracket size, and catalog numbers are to be shown on the streetlight plans. The parking lot lighting plan and equipment submittals must be approved by the City of Joliet prior to final plan approval.

2.4. Parking lot lighting shall be installed and in good working order immediately upon completion of the parking lot pavement.

2.5. The City of Joliet shall be provided as-built drawings in electronic or pdf form.

3. Definitions

EXTERIOR LIGHTING: The illumination of an outside area or object by any manmade device that produces light by any means.

FIXTURE: The assembly that houses the lamp or lamps and can include all or some of the following parts: a housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens.

FLAT LENSES: A glass or plastic element used in luminaires that is flush or inside the bottom edge of the luminaire.

FOOT-CANDLE (fc): A unit of illumination produced on a surface, all points of which are one foot (1') from a uniform point source of one standard candle.

FOOT-CANDLE HORIZONTAL MEASUREMENT (hfc): The measurement of foot-candles utilizing a direct reading, portable light meter mounted on a horizontal position.

GLARE: The sensation produced by luminance within the visual field that is sufficiently greater than the luminance to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance and visibility.

HEIGHT OF LUMINAIRE, CAR DEALERSHIPS: The maximum height of a luminaire at car dealerships shall be twenty-five feet (25') and shall be measured as provided herein. The maximum height of twenty-five feet (25') shall be measured from the ground directly below the centerline of the luminaire to the top of the pole or luminaire, whichever is higher. See Zoning Ordinance Section 47-14.1 Section 7.12.4 for special use fixture heights.

LIGHT LOSS FACTOR (LLF): A factor applied to lamps which estimates the lumen output of a lamp sometime after installation. (For example, a lamp with an initial lumen rating of 10,000 which has a light loss factor of 0.8 is estimated to put out 8,000 lumens. A lamp with an initial lumen rating of 10,000, which has a light loss factor of 1.0, is estimated to put out 10,000 lumens.)

LUMINAIRE: A complete lighting unit consisting of a light source and all necessary mechanical, electrical, and decorative parts.

UNIFORMITY RATIO: Describes the average level of illumination in relation to the lowest level of illumination for a given area.

4. Exterior Lighting Plan Required:

4.1. A photometric plan and lighting plan shall be required any time parking lot lighting is proposed, or modified, that is associated with a residential use of greater density than a one- or two-family dwelling or with any commercial, office, industrial or other use. The lighting plan shall be submitted with the site plan information as required in this title. Additionally, details showing proposed lighting equipment shall be submitted with the lighting plans for review and approval.

4.2. The lighting plan shall include a site plan indicating location of light fixtures and intensity of foot-candles at various points on the site, catalog cuts of the proposed fixtures, and a summary table containing average foot-candles, minimum foot-candles, maximum foot-candles, uniformity ratio (average/minimum), foot-candles at the property line, pole height, and light loss factor (LLF). The plan shall also contain a certification by the property owner or agent and the preparer of the plan that the exterior lighting depicted on the plan complies with the requirements of this chapter. Once the plan is approved, the exterior lighting of the property shall conform to the plan. The plan must be signed by an Illinois Licensed Professional Engineer.

5. Exceptions and Variances:

5.1. Because of their unique requirement for nighttime visibility and their limited hours of operation, ball diamonds, playing fields, tennis courts, and other outdoor recreational facilities shall be exempted from the general standards of this section. Lighting for outdoor recreational facilities shall be shielded to minimize light and glare from spilling onto

adjacent residential properties. The maximum permitted illumination at adjoining residential property lines shall be one foot-candle. The maximum permitted illumination at adjoining nonresidential property lines shall be two (2) foot-candles.

5.2. Luminaires used for public roadway illumination by a public transportation agency shall be exempt from the requirements of this section but may be subject to the regulations of federal or state agencies or by intergovernmental agreements.

5.3. Public transportation facilities shall be exempt.

5.4. Public walkways shall be exempt.

5.5. When site characteristics are unique and the requirements of this section cannot be met, the Director of Public Works has the authority to approve nonconforming lighting designs if the illumination levels and/or uniformity ratios are within twenty percent (20%) of the values set forth in this section. All other nonconforming designs shall be subject to approval of the city council through the variance procedure or by annexation agreement or development agreement.

5.6. For improvements utilizing architectural up lighting, flag lighting, digital signs, and all other appurtenance not mentioned in this ordinance, the owner shall provide applicable information to Department of Public Works and Planning and Economic Development for review. Approval of such improvements may be allowed as a Special Use Permit by the Mayor and City Council, with the advice of the Zoning Board of Appeals.

5.7. A Special Use Permit by the Mayor and City Council, with advice of the Zoning Board of Appeals may be requested for circumstances that are not specified in this ordinance or Zoning Ordinance 47-14.1 Section 7.12.4.

6. Nonconforming Luminaires:

6.1. Exterior lighting luminaires in existence on the effective date of this section shall be exempt from the standards of this section and shall be considered legally nonconforming. Such fixtures may be repaired and maintained. However, if any legal nonconforming luminaire is moved or damaged by any means to an extent that its total replacement is necessary, the luminaire, or replacement, shall comply with this section. For development activity involving improved property, luminaires shall be required to comply with this section when the floor area of any building or structure, or parking areas, or any combination thereof, is increased by ten percent (10%) or greater.

7. Luminaire Design Factors:

7.1. The style of the light and light standard shall be consistent with the architectural style of the principal building.

7.2. All building lighting for security or aesthetics shall include glare controls and shall be shielded. Floodlighting is prohibited. Wallpack type fixtures shall not be permitted where visible from an adjacent roadway.

7.3. All parking area lighting shall include glare controls and shall be shielded.

7.4. Poles supporting lights shall be no taller than twenty-three feet (23') in a residential district, twenty-five feet (25') in a commercial district, a commercial part of a residential planned unit development, or in office/business park districts, and thirty-two feet (32') in any industrial district. I-T zoning parking lot lighting requirements can be found in Section 47-14A of the Zoning Ordinance.

8. Standards and requirements:

8.1. Height of Luminaire at Automotive Dealerships: The maximum height of a luminaire at automotive dealerships shall be twenty-five feet (25') and shall be measured as provided in the definition of "height of luminaire, car dealerships". All existing dealerships that have luminaires on their sites in excess of the twenty-five-foot (25') maximum at the time of adoption hereof will be grandfathered and considered legal nonconforming luminaires for the sole purpose of its height and only until such time as the pole or base are removed or replaced.

8.2. Standards; Exception: Lighting shall be provided in accordance with the standards of the Illuminating Engineering Society of North America (IESNA) as follows for all uses, with the exception of automotive dealerships as specified:

IESNA Parking Lot Levels of Activity	IESNA Maintained Horizontal Illuminance Standards (Foot-Candles)					
	General Parking And Pedestrian Area			Vehicle Use Area (Only)		
	Ave.	Min.	Uniformity Ratio	Ave.	Min.	Uniformity Ratio
High	3.6	0.9	4:1	2.0	0.67	3:1
Major athletic events						
Major cultural events						
Regional shopping centers (retail space above 300,000 square feet)						
Fast food facilities (> 40 seats)						
Entertainment theaters						
Medium	2.4	0.6	4:1	1.0	0.33	3:1
Community shopping centers (retail space to 299,999 square feet)						
Office parks						
Hospital parking						
Multi-family residential complex						
Low	0.8	0.2	4:1	0.5	0.13	4.1
Neighborhood shopping centers (retail space of less than 5,000 square feet)						
Industrial employee parking						
Educational facilities						
Church parking						

8.3. Lighting shall be provided in accordance with the standards of the Illuminating Engineering Society of North America (IESNA) as follows for automotive dealerships:

Areas Of Activity	***Description***	**Standards (Foot-Candles) - *Target Maintained Levels***
Feature display area	The first row of vehicles adjacent to a major/minor arterial, including the area in front of the vehicle up to the property line and behind the vehicle up to the merchandise area and/or the circulation area including drive aisles. Compliance with the provision related to security lighting, below, is required from 10:00 P.M. until sunrise.	**75 foot-candles - maximum**
Merchandise area	All other rows of vehicles on a lot used for general auto sales, including all areas surrounding the vehicle up to the defined circulation area including related drive aisles. Compliance with the provision related to security lighting, below, is required from 10:00 P.M. until sunrise.	**50 foot-candles - maximum**
Circulation area	Includes all portions of the lot dedicated to customer parking, employee parking, site entrance areas and inventory areas including related drive aisles. Compliance with the provision related to security lighting, below, is required from 10:00 P.M. until sunrise.	**10 foot-candles - average**
Security lighting, Monday—Sunday	The average amount of light found on site within each of the areas of activity, including the feature display area, merchandise area, and circulation area from 10:00 p.m. until sunrise.	**10 foot-candles - average**

8.4. In determining the maximum foot-candle standard provided above, all foot-candle measurements shall be taken from the ground at any point within the areas of activity or at the property line.

8.5. In determining the average foot-candle standard, all foot-candle measurements shall be taken from the ground at ten-foot (10') increments throughout the areas of activity.

8.6. Light shields used by car dealerships to control light and reduce glare shall be made of nonreflective material.

8.7. Exterior lighting shall be designed at or below the following average maintained foot-candles at the property line:

Location	Maximum Foot-Candles At Property Line - Horizontal Measurement
Residential to residential	**Horizontal fc: 0.10**
Nonresidential to nonresidential	**Horizontal fc: 2.0**
Nonresidential to residential	**Horizontal fc: 0.10**
Intensity at adjoining right-of-way, except as noted below for automotive dealerships	**Horizontal fc: 0.50**
Intensity at adjoining major/minor arterial rights-of-way for automotive dealerships	**Horizontal fc: 10.0**

8.8. The light loss factor (LLF) shall be a minimum of 0.75 to a maximum of 0.8 for all uses.

9. Measuring Light Levels:

9.1. Metering Equipment: Light levels of both direct and indirect light shall be measured in foot-candles with a direct reading, portable light meter. Readings shall be taken only after the cell has been exposed long enough to provide a constant reading.

9.2. Method Of Measurement: Foot-candle horizontal measurements shall be taken at a height of three and one-half feet (3.5') aboveground.