

9. PERFORMANCE STANDARDS

A. PURPOSE AND APPLICABILITY

The requirements herein are intended to provide a basis for determining the compatibility of land uses that may produce measurable adverse environmental effects on their surroundings.

They shall apply to all uses in the City and shall be administered as provided under Administration herein.

B. NOISE

1. MAXIMUM SOUND LEVELS

No operation or activity shall cause or create noise above the sound pressure levels in Tables 9A and 9B at the locations specified therein.

2. MEASUREMENT

A sound level meter and associated octave band analyzer conforming to the specifications of the American Standards Association shall be employed to measure the intensity and frequency of sound.

3. EXEMPTIONS

The following shall be exempt from noise performance standards:

- a. Noises of construction or maintenance activities from 7 AM to 9 PM.
- b. Noises of safety signals, warning devices, and emergency pressure relief valves.
- c. Transient noises of moving sources such as transportation vehicles.
- d. Noises associated with snow plowing, street sweeping, and mosquito abatement.
- e. Church bells, chimes, and carillons.
- f. Other noises not under the direct control of the property user.

Table 9A: Permitted Sound Levels

Preferred Center Frequency in Hertz	Maximum Permitted Sound Pressure Level in Decibels at Boundaries of:	
	Nearest Lot in Residential Zone	Nearest Lot in Business or Industrial
0-75	72	79
75-150	67	74
150-300	59	66
301-600	52	59
601-1,200	46	53
1,201-2,400	40	47
2,402-4,800	34	41
Over 4,800	32	39

Above figures for octave band analyzers calibrated with Preferred Frequencies (American National Standards Institute S1.6-1984, Preferred Frequencies and Band Numbers for Acoustical Measurement)

Sound levels above shall be modified where applicable by the adjustments in Table 9B.

Table 9B: Adjustments to Permitted Sound Levels

	Adjustment in Decibels
1. DURATION of noise in any one-hour period (use one adjustment only): a. under 12 minutes b. under 3 minutes c. under ½ minute	Add 5 dB Add 10 dB Add 15 dB
2. At boundaries of nearest Office or COMMERCIAL zoned lot	Add 5 dB
3. Noise is IMPULSIVE in character (e.g., hammering)	Subtract 5 dB
4. Noise is PERIODIC in character (e.g., hum, screech)	Subtract 5 dB
5. Noise may be heard between HOURS of 7 PM and 7 AM	Subtract 5 dB

C. VIBRATION

Vibration shall not at any time:

- a. result in a combination of amplitudes and frequencies beyond the "safe" range of U.S. Bureau of Mines Bulletin No. 442, Seismic Effects of Quarry Blasting, Table 7, on any structure, or
- b. produce an acceleration exceeding 0.1 gravities based on methods of Bulletin 442, or
- c. be discernible to the human sense of feeling at the property line for 3 minutes or more in any hour.

D. SMOKE

Emissions of smoke shall not exceed the darkness or opacity of Number 0 on the Ringelmann Smoke Chart of the U.S. Bureau of Mines, Information Circular 8333 (revision of IC 7718), May 1, 1967, or of Number 1 for periods not exceeding 4 minutes in any 30-minute period.

E. PARTICULATE MATTER

1. MAXIMUM EMISSIONS

Particulate matter is fine, solid or liquid particles small enough to be carried in the air, including products of combustion such as soot and fly ash, industrial dust, and products of wind erosion.

The rate of emission of particulate matter from all sources at any point shall not exceed 0.1 grains per cubic foot of the conveying gas or air. For measurement of particulate matter in gases resulting from combustion, standard corrections shall be applied to a stack temperature of 500 degrees Fahrenheit and 50 percent excess air.

2. CONTROL OF WIND EROSION

Emission of particulate matter from materials, products, or surfaces subject to wind erosion shall be minimized by paving, oiling, wetting, covering, landscaping, fencing, or other means.

This shall apply to vacant lots; unpaved roads; yards and storage piles of bulk materials such as coal, sand, cinders, slag, and sulfur; and similar sources of windborne particulates.

F. TOXIC MATTER

Release of any toxic matter is prohibited in concentrations that are detrimental to the public health, safety, comfort, or welfare or that cause damage to property or business. Values given in Tables I, III, IV, and V in Chapter 5 of the latest revision of the Air Pollution Abatement Manual of the Manufacturing Chemists Association shall be used to determine permissible concentrations. Detailed plans for elimination of toxic matter may be required before issuance of a Building Permit.

G. ODOR

Odorous material released shall not exceed the Odor Threshold Concentration at the property line.

Odor shall be measured by Odor Threshold Concentrations with the American Society for Testing and Materials Method D1391-57, Standard Method for Measurement of Odor in Atmospheres (Dilution Method).

Odor shall be measured at ground level and habitable elevation, as defined herein. Detailed plans for elimination of odors crossing property lines may be required before issuance of a Building Permit.

H. FIRE AND EXPLOSION

1. OTHER REGULATIONS APPLICABLE

In addition to the requirements herein, all materials regulated in this section shall be utilized, stored, manufactured, and handled in accordance with the City Fire Code (Title 8, Chapter 3, of the Warrenville Municipal Code) and the standards of the National Fire Protection Association.

2. DETONABLE MATERIALS

Storage, utilization, and manufacture of materials or products that decompose by detonation shall be permitted only as specifically licensed by the City Council.

Such materials shall include:

- a. all primary explosives, such as lead azide, lead sulfate, and fulminate of mercury
- b. all high explosives and boosters, such as TNT, RDX, tetryl and ammonium hydrate
- c. propellants and components thereof, such as dynamite and nitroglycerine
- d. pyrotechnics and fireworks materials, such as powdered magnesium, potassium chlorate, potassium permanganate, and potassium nitrate
- e. rocket fuels such as hydrazine nitrate
- f. nuclear fuels, fissionable materials and products, and reactor elements, such as Uranium 235 and Plutonium 239.

3. FLAMMABLE SOLID MATERIALS

The utilization, storage, and manufacture of flammable solid materials are permitted subject to the following restrictions:

<u>Rating</u>	<u>Restrictions</u>
Noncombustible to Moderate Burning	None
Free to Active Burning to Intense Burning construction in compliance with the Building Code that are:	Only in completely enclosed buildings with minimum fire-resistive

1. Located at least 100 feet from all lot lines, and
2. Protected with an automatic fire extinguishing system complying with installation standards of the National Fire Protection Association.

4. FLAMMABLE LIQUIDS AND GASES

The manufacture of flammable liquids or gases that produce flammable or explosive vapors at ordinary weather temperatures shall be prohibited except when such materials are used in secondary processes or are required in emergency or stand-by equipment. Storage of such materials shall be permitted if in conformity with standards of the National Fire Protection Association and regulations of the Illinois Department of Public Safety.

I. ILLUMINATION AND GLARE

1. ILLUMINATION STANDARDS

Uses required herein to provide over 8 parking spaces or one or more loading spaces shall provide, for such uses as defined hereunder, illumination as follows:

TABLE 9C: ILLUMINATION STANDARDS [a]

Permitted Illumination Levels for Vehicle Use Areas in Foot Candles (F/C)

<u>Level of Activity</u>	<u>Minimum at any Point</u>	<u>Minimum Average</u>	<u>Maximum Average</u>
Low	.2 F/C	.5 F/C	1.5 F/C
Medium	.6 F/C	1 F/C	2 F/C
High	.9 F/C	2 F/C	3 F/C[b]
Illumination average to minimum uniformity ratio for all parking lots			4:1
Maximum illumination level at lot lines adjacent to or across from detached and attached Single Family zoned properties			.1 F/C

[a] The Community Development Director, with the prior written approval of the City Engineer, shall have the administrative authority to approve illumination plans that provide illumination levels not less than 20% below the illumination values listed in Table 9C. (Ord. 1917, 6-20-01)

[b] Except gasoline station canopies, which can have a maximum average illumination level of 60 F/C.

For the purpose of this section, the following guidelines shall be used to determine the activity level for individual parking lots:

A. HIGH ACTIVITY LEVELS:

Large parking lots (100 + spaces) in which a majority of the required parking spaces are occupied by employee and customer/visitor vehicles after 6 p.m. or

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small (up to 15 spaces) and medium (16–99 spaces) parking lots in which a majority of the required parking spaces are occupied by employee/customer/visitor vehicles and regular on-site truck traffic is experienced/generated after 6 p.m.

B. MEDIUM ACTIVITY LEVELS:

Any parking lot in which a majority of the required parking spaces are occupied by employee vehicles and regular on-site truck traffic is experienced/generated after 6 p.m. or small and medium parking lots in which the majority of the parking spaces are occupied by employee and customer vehicles after 6 p.m.

C. LOW ACTIVITY LEVELS:

Parking lots (i) in which the majority of the required parking spaces are not occupied by employees and/or customers/visitors after 6 p.m., or (ii) only occupied by employee vehicles after 6 p.m. Unless otherwise approved by the Warrenville Plan Commission, all parking lots associated with non-residential uses located on residentially zoned property shall be classified as and comply with the illumination standards of a LOW ACTIVITY LEVEL parking lot. (Ord. 2276, 4-18-06)

2. FIXTURE SPECIFICATIONS:

All exterior luminaries, except decorative fixtures as approved by the Plan Commission, shall have full horizontal cutoff optics with flat lenses, with no portion of the lens protruding below the housing. Standard City of Warrenville decorative streetlight fixtures shall be exempt from this regulation.

All parking lot lighting associated with a non-residential parking lot located on residentially zoned property shall be equipped with and operated on a timer or other equivalent City approved system to substantially reduce the amount of parking lot lighting provided during times and periods when the parking lot is not normally used. The required photometric plan for such parking lots shall clearly reference and accommodate the installation of this type of system. (Ord. 2276, 4-18-06)

3. MOUNTING HEIGHT SPECIFICATIONS:

Parking lots adjacent to or across from detached and attached Single-Family zoned properties shall have a maximum light fixture mounting height of 26-feet. Non-residential parking lots located on residentially zoned property shall have a maximum light fixture mounting height of 22-feet. (Ord. 2276, 4-18-06)

4. ILLUMINATION GLARE:

Sources of lighting shall be directed, shaded, or otherwise arranged to minimize perceived glare from adjacent properties.

When the City Engineer determines it is practical and technically feasible, non-residential parking lots located on residentially zoned property shall be illuminated with perimeter parking lot fixtures. All perimeter parking lot fixtures installed on such parking lots shall be equipped and maintained with house side shields to minimize off-site light pollution and reduced perceived glare from adjacent off-site properties. (Ord. 2276, 4-18-06)

TABLE 9D: TRANSITIONAL OFFICE LIGHTING

Maximum fixture lighting height in feet	8
Light Source (a)	Incandescent Lamps (b)
Time during which parking lots may be lit	6:30 a.m. to 10:00 p.m.

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- (a) Catalog cut sheets and a lighting location plan must be submitted for review by the Zoning Administrator.
 - (b) All lighting shall be of a residential character and shielded or directed to minimize perceived glare on surrounding residential properties.

J. HEAT

No heat from operations or processes shall be capable of being sensed at any lot line to the extent of raising the temperature of air or materials more than five degrees Fahrenheit.

K. RADIOACTIVE RADIATION

No operation shall be permitted that causes any individual outside of the lot lines to be exposed to any radiation exceeding the lowest concentration permitted for the general population by federal and state laws and regulations in effect as of the day of application for a Certificate of Occupancy.

L. WASTE

All sewage and industrial wastes shall be treated and disposed of in compliance with regulations of the City, State, and the U.S. Environmental Protection Agency. Approval by the Illinois Environmental Protection Agency shall be required before issuance of any Building Permit.

M. UTILITY FACILITIES

All equipment and facilities used in supplying gas, sewer, water, electric, communication, or governmental utility services of any kind shall be permitted or special uses in accordance with the applicable district regulations.

1. All such utility equipment and facilities which are defined in this Ordinance as special public uses shall require site plan approval.

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2. All wiring (including transmission, distribution and service lines) for the supply of electric and communication services shall be placed underground except as hereinafter provided. Unless otherwise required by City Ordinance, the following wiring is exempt from the underground placement requirement:

- a. Wiring which carries more than 15,000 volts; or
- b. Wiring which is for temporary service during the period of new construction; or
- c. Wiring which is relocated at the request of the City; or
- d. Wiring which is for minor repair of existing facilities; or
- e. Lead-in or service wiring from existing poles to single-family dwellings.

3. No transformers, utility substations, electric service entrances or gas meters of any buildings (except detached single-family dwellings) shall be visible from any immediately adjacent public street, or from any adjoining residential district at grade level.

Screening may be done in any manner which does not interfere with the operation of or cause equipment or devices to be inaccessible, and shall be the responsibility of the property owner.

4. No operation or activity under the control of the property user shall cause or create electromagnetic interference that adversely affects at any point the operation of any equipment other than that belonging to the creator of such interference, or that violates any regulation of the Federal Communications Commission.

With respect to the construction, operation, and maintenance of any public or private electrical utility substation, all reasonable steps shall be taken to reduce and minimize the measurable average annual milligauss level at any property line. For the purpose of this provision, the property owner shall submit to the City a study identifying all available scientific or technical measures used to achieve such a measurable average annual milligauss level. The property owner shall also identify any measure which could reduce the measurable average annual milligauss levels but which was not deemed reasonable. In addition, such study shall include a documented projection of the anticipated measurable average milligauss level at any property line.

N. ADMINISTRATION

The procedures herein are intended to enforce the Performance Standards herein, to protect businesses from arbitrary enforcement, and to protect the public from unnecessary enforcement costs.

1. NEW USES

An application for a Special Use Permit or a Building Permit for an industrial use within any Manufacturing District shall include a certification by a licensed engineer or scientific laboratory that the use involved in the application is able to meet all applicable Performance Standards to the extent that this can be judged based on the submitted building plans and other information available prior to construction.

This certification shall be accompanied by copies of all data or information supplied by the applicant and used as the basis of the certification. The Zoning Administrator may refer the certification and data to the City Engineer for review.

The Zoning Administrator may also require such certification for a land use in any other zoning district when in his or her judgment the use has potential to exceed any Performance Standard herein. Such certification may include all Performance Standards or only individual Standards specified by the Zoning Administrator.

2. EXISTING USES

In enforcing Performance Standards on existing uses, the Zoning Administrator may issue a written Notice of Violation to an alleged violator. The Zoning Administrator shall, before issuing such Notice, make technical determinations of violation when such determinations can be made using equipment and trained personnel normally available to the City or obtainable without extraordinary expense.

In other cases, however, technical complexity or extraordinary expense may make it unreasonable for the City to maintain personnel or equipment for making determinations of violation prior to issuing a Notice of Violation. In such cases, a Notice of Violation may be issued when the Zoning Administrator has other reason to believe there is probable violation. The Zoning Administrator shall give Notice of Violation by any means that ensures a signed receipt for such notice to the party responsible for the alleged violation.

The notice shall describe the alleged violation and the results of technical determinations or the other reasons why the Zoning Administrator believes there is a violation. The notice shall require either an answer or correction of the alleged violation to the satisfaction of the Zoning Administrator and within a time limit he or she shall specify in the Notice.

The Notice shall also state that failure to provide an answer or correct the alleged violation within this time limit shall constitute admission of a violation.

The Notice shall further state that, if technical determinations have not already been made, upon request of the alleged violator such determinations will be made. If a violation is found as a result of such determinations, the cost of the determinations will be assessed against the properties or parties responsible in addition to any other penalties provided for. If no violation is found, the City will pay the cost of the determinations.