

ORDINANCE NO. 2700
(ZOA-07-680003 – Noise Ordinance)

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF HENDERSON,
NEVADA, TO AMEND TITLE 19 OF THE HENDERSON MUNICIPAL CODE
BY REVISING SECTIONS 19.10 AND 19.14 REGARDING NOISE LEVELS,
MEASUREMENT METHOD, AND OTHER MATTERS RELATED THERETO.

WHEREAS, the City Council finds that the noise ordinance is important to the city; and

WHEREAS, it is the intent of the City of Henderson to update the current noise measurement standards to allow for easier measurement of levels and enforcement;

THEREFORE, the City Council of the City of Henderson, Nevada, does ordain as follows:

SECTION 1. Henderson Development Code Sections 19.10.7.G and 19.14 are hereby amended as follows:

Sec. 19.10.7.G. Noise

1. General

All uses and activities (except publicly owned airports and railroads) shall comply with Chapter 8.84 of the City Code, and the maximum sound pressure level radiated by any use or facility shall not exceed the values shown in Table 19.10.7.1:

Table 19.10.7.1

Octave-Band Range in Cycle Per Second	Sound Pressure Level in Decibels 0.0002 dyne/cm ²
Below 75	72
75 – 150	67
151 – 300	59
301 – 600	52
601 – 1200	46
1201 – 2400	40
2401 – 4800	34
Above 4800	32

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Table 19.10.7.1

<u>Receiving Property Land Use</u>	<u>Time of Day</u>	<u>Background Level (dBA) Outdoors</u>	<u>Maximum Permitted Sound Level (dBA) Outdoors</u>
<u>Residential property, or residential portion of a multi-use property</u>	<u>7 a.m. to 9 p.m.</u> <u>9 p.m. to 7 a.m.</u> <u>24 hours</u>	<u>(Leq14) 62-64</u> <u>(Leq10) 53-59</u> <u>(L90) 60</u>	<u>65-Daytime</u> <u>60-Nighttime</u> <u>(L10) 70 (Not to</u> <u>exceed for greater</u> <u>than 15 min. in a</u> <u>24-hour period)</u>

<u>Industrial</u>	<u>5 a.m. to 8 p.m.</u> <u>8 p.m. to 5 a.m.</u> <u>24 hours</u>	<u>(Leq15) 68-71</u> <u>(Leq 9) 68-73</u> <u>(L90) 68</u>	<u>73-Daytime</u> <u>73-Nighttime</u> <u>(L10) 73 (Not to</u> <u>exceed for greater</u> <u>than 15 min. in a</u> <u>24-hour period)</u>
<u>Commercial</u>	<u>5 a.m. to 8 p.m.</u> <u>8 p.m. to 5 a.m.</u> <u>24 hours</u>	<u>(Leq15) 72-75</u> <u>(Leq 9) 70-73</u> <u>(L90) 68</u>	<u>75- Daytime</u> <u>73- Nighttime</u> <u>(L10) 77-</u> <u>(Not to exceed for</u> <u>greater than 15 min.</u> <u>in a 24 hour period)</u>

- a. **Measurement Point**
[In I Districts,] I[t]he sound [pressure] level shall be measured at the [I District boundaries for uses and activities located in an I District. In other districts, the sound shall be measured at the] lot line of the property on which the sound is generated.
- [b. **Uneven/Discontinuous Noise**
If the noise is not smooth and continuous or is not present between the hours of 10 p.m. and 7 a.m., one or more of the following corrections set forth in Table 19.10.7.2 shall be applied to the above octave-band levels:

Table 19.10.7.2

Noise Source/Timing	Correction in Decibels
Daytime operation only	+5
Noise source operates less than 20 percent of any one-hour period	+5
Noise source operates less than 5 percent of any one-hour period	+10
Noise of impulsive character such as hammering	-5
Noise of periodic character such as humming or screeching	-5

- c. **Measuring Equipment**
The sound pressure level shall be measured with a sound level meter and associated octave band analyzer conforming to standards prescribed by the American Standard Association.]

Editor's Note: Pursuant to City Charter Section 2.090(3), language to be omitted is enclosed in [bold brackets], and language proposed to be added is underscored.

b. Sound Level Measurement

Noise levels shall be measured with a sound level meter or noise dosimeter which meets the current requirements outlined in the American National Standards Institute (ANSI) Specification for Sound Level Meter, S1.4 (1983) Type S2A, and set to use the A-weighted network with slow meter response.

2. Additional Standards for Specific Operations and Activities

[d. New Construction or Additions

All new construction or additions in excess of 5,000 square feet that are planned to house any stationary machinery, device or equipment that will create noise that exceeds 60 db(A) shall be reviewed to ensure that noise mitigation measures such as building noise attenuation and insulation, siting modifications, berms, barriers, and other measures are utilized to effect noise level reductions up to 15 db(A) more than normal construction or to 55 db(A) at the property line abutting any residential development, whichever will result in the lower expenditure for the applicant.]

3. Lawn Maintenance Equipment and Power Tools

No person shall operate or use or cause to be operated or used any lawn care device or power tool before 6 a.m. and after 7 p.m. or sunset, whichever occurs later, or at any time in such a way as to create a "noise disturbance." The provisions contained in this paragraph shall not apply to an employee of the department of parks and recreation, or to a person engaging in private golf course lawn maintenance, who operates or uses or causes to be operated or used any lawn maintenance equipment between the hours of 6 a.m. and 8 a.m. in any location more than three hundred feet from a residential property. The distance of three hundred feet shall be measured in a straight line from the point on the exterior wall of such residential property nearest to any point in the location at which such lawn maintenance is undertaken.

[3]4.Exemptions

The following operations and activities are exempted from the limitations of this section:

- [a. Warning or alarm devices that have the purpose of signaling unsafe or dangerous situations or calling for police.
- b. Noises resulting from authorized public activities such as parades, fireworks displays, sports events, musical productions, and other activities that have the approval of the City Council or its designee.]

- a. Emergency Power Generators
Emergency power generators that are installed as backup power supplies at hospitals, nursing and retirement homes, office buildings, or similar large-occupancy structures. Operation is permitted only when they operate in emergency situations when normal electric service is interrupted and during scheduled routine testing periods limited to such duration as to confirm proper functionality. Because of their infrequent use, and the great expense normally incurred to attenuate these noise sources, they are exempt from this ordinance during emergency operation. Routine testing must take place between the hours of 8 a.m. and 8 p.m. and shall not continue longer than 30 minutes per testing period. This exemption only applies to those generators that are used to provide emergency power in emergency situations or as required by the City of Henderson Fire Department. Generators not used for these purposes are required to meet the sound level limits established in Section 3.0.
- b. Emergency Work
Sound was produced by emergency work necessary to restore public utilities, or to restore property to a safe condition, or to protect persons or property from imminent danger, following a fire, accident or natural disaster.
- c. Aircraft and Trains
Sound produced by aircraft in flight or in operation at an airport, or railroad equipment in operation on railroad rights-of-way.
- d. Permitted Activities
Any activities that generate noise for which a permit was issued under the specification outlined in this title or Title 8.84.

Sec. 19.14.2 Terms Defined

A-Frame Sign

A-Weighted Decibels

The ear is not as effective in hearing low-frequency sounds as it is hearing high-frequency sounds. That is, low-frequency sounds of the same dB level are not heard as loud as high-frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise. The sound pressure level in decibels is measured with a sound-level meter or noise dosimeter using the A-weighted network. The standard notation is dB(A) or dBA.

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Back Lit Awning

Background Noise

Background noise is the term used to describe the noise measured in the absence of the noise under investigation. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L_{90} noise level.

Connecting Walkway

Construction

Any or all activity, except tunneling, necessary or incidental to the erection, demolition, assembling, altering, installing or equipping of buildings, public or private highways, roads, premises, parks, utility lines, or other property, including land clearing, grading, excavating and filling.

Construction Sign

Continuous Sound

Any sound that exists essentially without interruption for a period of 10 minutes or more.

Cut Slope

Decibel

A unit of measure of sound (see sound pressure level). The level of noise is measured objectively using a Sound Level Meter. This instrument has been specifically developed to mimic the operation of the human ear. The human ear responds to minute pressure variations in the air. These pressure variations can be likened to the ripples on the surface of water but of course cannot be seen. The pressure variations in the air cause the eardrum to vibrate, and this is heard as sound in the brain. The stronger the pressure variations, the louder the sound is heard. The standard notation is dB.

Dwelling Unit, Attached

Dynamic Braking Device

A device used primarily on trucks and buses to convert the motor from an internal combustion engine to an air compressor for the purpose of braking without the use of wheel brakes, commonly referred to as an engine or "jake" brake.

Electronic Message Center

Emergency Work

Work required to restore property to a safe condition following a public calamity, work to restore public utilities, or work required to protect persons or property from imminent exposure to danger.

Infrastructure

Impulse Sound

A noise containing excursions usually less than one second as measured on a peak un-weighted sound pressure measuring instrument.

Kitchen

L10-Tenth Percentile Noise Level

The A-weighted sound pressure level that is exceeded 10 percent of the time in any measurement period (such as the level that is exceeded to 1 minute in a 10-minute period) and is denoted L10.

L90-Ninetieth Percentile Noise Level

The A-weighted sound pressure level that is exceeded 90 percent of the time in any measurement period (such as the level that is exceeded to 9 minutes in a 10-minute period) and is denoted L90.

Large Parcel Division

Leq (Equivalent Sound Pressure Level)

The steady sound level that, over a specified period of time, would produce the same energy equivalence as the fluctuating sound level actually occurring. Denoted as Leq.

Leq (9hr)

The Leq noise level for the period 8 p.m. to 5 a.m. or commercial and industrial nighttime measurements.

Leq (10hr)

The Leq noise level for the period 9 p.m. to 7 a.m. or residential nighttime measurements.

Leq (14hr)

The Leq noise level for the period 7 a.m. to 9 p.m. or residential daytime measurements.

Leq (15hr)

The Leq noise level for the period 5 a.m. to 8 p.m. or commercial and industrial daytime measurements.

Lot Width

Loudness

A rise of 10 dB in sound level corresponds approximately to a doubling of subjective loudness. That is, a sound of 85 dB is twice as loud as a sound of 75 dB, which is twice as loud as a sound of 65 dB and so on. That is, the sound of 85 dB is 400 times the loudness of a sound of 65 dB.

Net Density Reduction (NDR)

Noise

Any sound that is unwanted and causes or tends to cause an adverse psychological or physiological effect on human beings.

Noise Disturbance or Unreasonable Noise

Any sound that annoys, injures, or endangers the safety or health of a reasonable person(s) with normal sensitivities or endangers the comfort, repose, health, hearing, peace or safety of another person(s), or that causes injury to, or damage to property or business.

Permitted

Person

Any individual, partnership, company, corporation, association, firm, organization, government agency, administration or department, or any other group of individuals, or any officer or employee thereof.

Plainly Audible Noise

Any noise for which the information content of that noise is unambiguously communicated to the listener, such as, but not limited to, understandable spoken speech, comprehension of whether a voice is raised or normal, or comprehensible musical rhythms.

Portable Sign

Power Tool

Any device powered mechanically, by electricity, by gasoline, by diesel fuel or by any other fuel, which is intended to be used or is actually used for, but shall not be limited to, the performance of such functions as cutting, nailing, stapling, sawing, vacuuming or drilling.

Projecting Sign

Property Boundary

An imaginary line at the ground surface, and its vertical extension that separates the real property owned by one person from that owned by another person.

Soil

Sound

A temporal and spatial oscillation in pressure, or other physical quantity with interval forces that cause compression or rarefaction of the medium, and that propagates a finite speed to distance points which evokes an auditory sensation.

Sound Level Meter

A sound level measuring device, either Type I or Type II, as defined by American National Standards Institute Specifications S 1.4-1971. A sound level meter for the purpose of this Ordinance shall contain at least an A-scale and both fast and slow meter response.

Sound Pressure Level

In decibels (dBA), is 20 times the logarithm to the base 10 of the ratio of the pressure of a given sound to the reference pressure. The reference pressure is 10 micropascals per square meter. Abbreviated LP or SPL.

Standards Specifications

Steady Noise

A sound pressure level that remains essentially constant during the period of observation and does not vary more than 6 dBA when measured with the slow response of the sound level meter.

SECTION 2. If any section, subsection, paragraph, clause or provision of this Ordinance shall for any reason be held invalid or unenforceable, the invalidity or unenforceability of such section or subsection, paragraph, clause or provision shall not affect any of the remaining provisions of this Ordinance.

SECTION 3. All ordinances, or parts of ordinances, sections, subsection, phrases, sentences, clauses or paragraphs contained in the Municipal Code of the City of Henderson, Nevada, in conflict herewith are repealed and replaced as appropriate.

SECTION 4. A copy of this Ordinance shall be filed with the office of the City Clerk, and notice of such filing shall be published once by title in the Henderson Home News, a newspaper having general circulation in the City of Henderson, at least ten (10) days prior to the adoption of said Ordinance, and following approval shall be published by title (or in full if the Council by majority vote so orders) together with the names of the Councilmen voting for or against passage for at least one (1) publication before the Ordinance shall become effective. This Ordinance is scheduled for publication on February 7th 2008 in the Henderson Home News.

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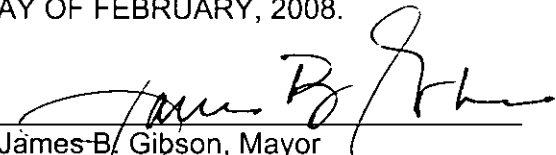
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PASSED, ADOPTED, AND APPROVED THIS 5th DAY OF FEBRUARY, 2008.


James B. Gibson, Mayor

ATTEST:


Monica M. Simmons, CMC, City Clerk

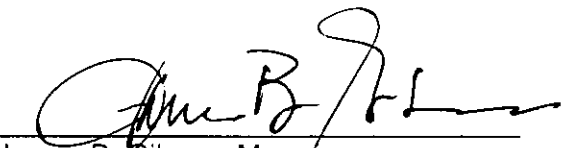
The above and foregoing Ordinance was first proposed and read in title to the City Council on January 15, 2007, which was a Regular Meeting, and referred to a Committee of the following Councilmen:

“COUNCIL AS A WHOLE”

Thereafter on February 5, 2008, said Committee reported favorably on the Ordinance and forwarded it to the Regular Meeting with a do-pass recommendation. At the Regular Meeting of the Henderson City Council held February 5, 2008, the Ordinance was read in title and adopted by the following roll call vote:

Those voting aye: Mayor James B. Gibson
Councilmembers:
Jack Clark
Arthur “Andy” Hafen
Steven D. Kirk
Gerri Schroder

Those voting nay: None
Those abstaining: None
Those absent: None


James B. Gibson, Mayor

ATTEST:


Monica M. Simmons, CMC, City Clerk

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