

ORDINANCE NO. _____

**Charlestown Township
Chester County, Pennsylvania**

AN ORDINANCE AMENDING SECTION 201, DEFINITION OF TERMS, TO PROVIDE ADDITIONAL DEFINITIONS FOR TERMS REGARDING NOISE POLLUTION PROVISIONS; ADDING A NEW SECTION 1616.L ENVIRONMENTAL CONTROLS PROVIDING SPECIAL DEVELOPMENT REGULATIONS DESIGNED TO CONTROL NOISE POLLUTION; DELETING SECTIONS 1616.D.5 THROUGH 1616.D.11; AND ADDING A NEW SECTION 1810 PROVIDING PERMIT REQUIREMENTS FOR ABSORPTIVE SOUND BARRIERS.

BE IT ENACTED AND ORDAINED by the Board of Supervisors of Charlestown Township as follows:

SECTION I: Article II, Section 201, Definition of Terms, is amended by replacing existing definitions of terms and adding the undefined terms and definitions in correct alphabetical sequence:

A-WEIGHTED SOUND LEVEL - The sound pressure level in decibels as measured on a Federally-approved and calibrated sound level meter using the A-weighting scale. The level so read is designated dB(A) or dBA.

ABSORPTIVE SOUND BARRIERS - A manmade wall or structure (a) with a Sound Absorption Coefficient (“NRC”) of 1.00 or greater as defined by ASTM c-423 and (b) with a Sound Transmission loss (“STC”) of 35 dB or greater as defined by ASTM E-90-70.

DAYTIME - Between the hours of 6:00 a.m. and 8:00 p.m.

DECIBEL (dB) - A unit for measuring the volume of a sound equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

EMERGENCY - Any occurrence or act of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

EMERGENCY WORK - Any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

EQUIVALENT A-WEIGHTED SOUND LEVEL (Leq) - The constant sound level that, in a given situation and time period, conveys the same sound energy as the actual time-varying A-weighted sound.

EQUIVALENT MEASUREMENT SYSTEMS - That, for the purposes of this section, and excluding Impulsive Sound, as defined herein, all measurements and designations of sound levels shall be expressed in daytime or nighttime average sound levels (Ld or Ln).

IMPULSIVE SOUND - A peaked, single-burst of sound energy of short duration, usually less than one second, with an abrupt onset and rapid decay. Examples of sources of impulsive sounds are explosions and the discharge of single-shot firearms.

NIGHTTIME - Between the hours of 8:00 p.m. and 6:00 a.m.

NOISE - Any sound which annoys or disturbs humans or which causes or tends to cause an adverse psychological or physiological effect on humans.

NOISE DISTURBANCE - Any sound which (a) endangers or injures the safety or health of humans, or (b) annoys or disturbs a reasonable person of normal sensitivities, or (c) endangers or injures personal or real property.

RESIDENTIAL AREA - Any area within the Township which is zoned for residential use, or is in residential use regardless of how zoned, or is used for a school, church, or park.

SOUND - An oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes depression and rarefaction of that medium. The designation of sound may include any characteristic of such sound, including duration, intensity and frequency.

SOUND LEVEL - The weighted sound pressure level obtained by the use of a sound level meter and frequency weighting scale, such as A, B, or C as specified in American National Standards Institute specifications for sound level meters (ANSI 1.4 - 197, or the latest approved revision thereof). If the frequency weighting employed is not indicated, the A-weighting shall apply. In all sound level measurements, consideration shall be given to the effect of the ambient noise level created by the encompassing noise of the environment from all sources at the time and place of such sound level measurement.

SOUND LEVEL METER - An instrument which includes a microphone, amplifier, RMS detector, integrator or time averager, output meter, and weighting networks used to measure sound pressure levels. If a properly configured and approved computer solution is used, a combination of the computer's hardware and software may be used to accomplish the individual tasks required.

SOUND PRESSURE - The instantaneous difference between the actual pressure and the average of barometric pressure at a given point in space, as produced by sound energy.

SOUND PRESSURE LEVEL - 20 times the logarithm to the base 10 of the ratio of the RMS sound pressure to the reference pressure of 20 micropascals . The sound pressure level is denoted Lp or SPL and is expressed in decibels.

SECTION II. Article XVI – General Provisions, Sections 1616.D.5 through 1616.D.11 are hereby deleted.

SECTION III. Article XVI - General Provisions, a new Section 1616.L is added to read as follows:

L. Special Development Regulations Designed to Control Noise Pollution.

In order to protect the health, safety, quality of life, preservation of property values, and general welfare of the residents of the Township and the historical, recreational, and natural features and resources located within the Township, no development shall be permitted, approved, or allowed within the Township and no use shall be permitted, approved or allowed within the Township which causes sound levels to exceed the following special regulations:

1. **Exemptions.**

These regulations shall not apply to the following:

- (a) Uses in existence or approved by the Township as of the effective date of this amendment, which uses are not being increased or expanded.
- (b) Construction.
- (c) Development of roads or streets upon which direct access from adjacent properties is legally permitted.
- (d) Rail carriers.
- (e) Air carriers.
- (f) Public speaking and public assembly activities.
- (g) Emergencies.
- (h) Emergency work.
- (i) Residential uses.
- (j) Domestic power tools.

- (k) Cultural, educational, religious, entertainment, athletic, or civic events, including, but not limited to, concerts, music festivals, and fireworks displays.
- (l) Alarms and other devices to alert people as to the existence of an emergency.
- (m) Work or activities performed or sponsored by schools and Township agencies or their contractors in the performance of public works.
- (n) Organized play or recreation, playground activities, parks and the like.
- (o) Snow removal activities.
- (p) Church bells and carillons.

2. **Authorization.**

This ordinance is adopted by the Township in implementation of the following statutes, rules and regulations:

- (a) Federal Noise Control Act of 1972, 49 U.S.C. Section 4901 *et seq.*, as amended, and, more specifically, Sections 4903(b), 4904, 4911, 4913, and 7641(c), and regulations adopted pursuant thereto.
- (b) Constitution of the United States, Amendments X and XIV.
- (c) Constitution of the Commonwealth of Pennsylvania, Article I, Sections 1 and 27.
- (d) Municipalities Planning Code, 53 P.S. Section 10101, *et seq.*, as amended, and, more specifically, Section 1671 and Articles V and VI.
- (e) Federal Aid Highway Act of 1970, , 23 U.S.C. Sections 109(I) and 182, as amended, and regulations adopted pursuant thereto.
- (f) Pa. Highway Act, 36 P.S. Sections 1981 and 2718.113, as amended.
- (g) PennDOT Regulations, including, but not by way of limitation, Revised Noise Handbook PennDOT Publication #24, dated January 28, 2002.
- (h) Federal Highway Administration (FHWA) Regulations, including, but not by way of limitation, Title 23, Code of Federal Regulations, Part 772 (including Table 9).
- (i) National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. Section 4331, as amended.
- (j) World Health Organization, *Community Noise* (Brigitta Berglund, Thomas Lindvall and Dietrich H. Schwela, eds., Stockholm University and the Karolinska

Institute 1999) and Guidelines for Community Noise of the World Health Organization in Geneva, Switzerland.

3. Prohibition of Noise Disturbance.

It shall be unlawful for any person to construct, expand, develop, or allow the use of any property which causes, allows, enables, or permits any unreasonably loud, unnecessary, and/or unusual sound which disturbs the peace or quiet of any Residential Area, or which causes discomfort or annoyance to any person of normal sensitivities residing in the area without a permit granted pursuant to Section 208-138. Every activity to which this section is applicable shall be conducted in a manner so that any noise produced is not objectionable due to intermittence, beat frequency, or shrillness.

4. General Standards.

The general standards which may be considered in determining whether a violation of the provisions of this section exists shall include, but not be limited to, the following:

- (a) The level of noise;
- (b) Whether the nature of the noise is usual for a residential area or unusual;
- (c) Whether the origin of the noise is natural or man-made;
- (d) The level and intensity of the background noise, if any;
- (e) The proximity of the noise to residential sleeping facilities;
- (f) The nature and zoning of the area within which the noise emanates;
- (g) The time of the day and night the noise occurs;
- (h) The duration of the noise;
- (i) Whether the noise is recurrent, intermittent, or consistent; and
- (j) The effects on public health, safety, property values, and general welfare.

5. Specific Standards.

Notwithstanding the general standards and any other provisions of this section, and in addition to and in implementation of the general standards, the following specific standards shall be applicable:

- (a) Average outdoor A-Weighted sound levels shall not exceed 55 dBA during daytime hours and 50 dBA during nighttime hours. Such average sound levels

shall be calculated as a continuous stream of one-minute moving averages. Each point used in the comparison shall be determined as the arithmetic average of all instantaneous readings occurring within the prior one-minute time window.

- (b) Impulsive A-Weighted sound levels shall not exceed 145 dB on one occasion in a 24-hour period, 135 dB on 10 occasions in a 24-hour period, and 125 dB on 100 occasions in a 24-hour period.

Sound levels of noise radiating from a property line at a distance of twenty-five feet or more therefrom in excess of the dB established for the stated time periods shall constitute prima facie evidence that such noise is a public nuisance.

6. Approval of Plans.

No plans for construction of new facilities or for expansion of existing facilities will be approved unless such plans include all control measures necessary to ensure that the proposed daytime and nighttime average sound levels do not exceed the specific standards and are consistent with the general standards and best management practices have been utilized for the mitigation of noise disturbances.

7. Absorptive Sound Barriers.

The use of absorptive sound barriers will be consistent with the general standards and will satisfy the specific standards if they are properly placed within the right-of-way of the proposed road or the expansion of the existing road and are of sufficient height, thickness and length to be consistent with the maximum sound levels permitted herein on the residential side of the barriers.

8. Interpretation of Provisions.

In interpreting and applying the provisions of this section, they shall be held to be the minimum requirements for the promotion of the public health, safety, quality of life, preservation of property values, and general welfare of the residents of the Township and historical, recreational, and natural features and resources located within the Township. When the provisions of this section impose greater restrictions or requirements than those of any statute, other ordinance, section or regulation, the provisions of this section shall control. When the provisions of any statute, other ordinance, section or regulation impose greater restrictions or requirements, the provisions of such statute, other ordinance, section or regulation shall control. The adoption of this ordinance shall not affect, amend or alter any other ordinances or regulations of the Township, which are hereby expressly saved from repeal. In the event of conflict between these standards and standards established by any other governmental agency, the more restrictive standards will apply in order to achieve the maximum reduction of noise disturbances.

SECTION IV. A new Section 1810, Permit Requirements for Absorptive Sound Barriers, is added to Article XVIII – Administration to read as follows:

Section 1810 - Permit Requirements for Absorptive Sound Barriers.

It shall be unlawful for any person to commence work, without a permit as required in this section, constructing, expanding, developing, or allowing the use of any property which will increase the sound level in a Residential Area if the activity involved is not exempt in accordance with Section 1616.L.1.

- A. A zoning permit shall be required prior to any person constructing, expanding, developing, or allowing the use of any property which increases the sound level in a Residential Area if the activity involved is not exempt in accordance with Section 1616.L. The application for permit shall include plans and reports establishing compliance with the provisions of Section 1616.L, in addition to the requirements of Article XVIII.
- B. A building permit shall be required for the construction of Absorptive Sound Barriers.
- C. If the proposed activity does not involve an increase in the sound level in excess of the limits established in Section 1616.L, the person undertaking such activity may file plans and reports establishing the prospective sound level which will result from such activity with a request for a waiver from the requirement that Absorptive Sound Barriers be constructed as part of the project. If the Zoning Officer concludes that such waiver should be granted, no building permit for Absorptive Sound Barriers shall be required.

SECTION V. Severability. Should any section or provision of this Ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of any other section or provision of this Ordinance than the one so declared.

SECTION VI. Repealer. All Ordinances and parts of Ordinances inconsistent herewith are hereby repealed to the extent of the said inconsistency.

SECTION VII. Effective Date. This Ordinance shall become effective within five (5) days of enactment.

ENACTED and ORDAINED this _____ day of _____, 200_.

**CHARLESTOWN TOWNSHIP
BOARD OF SUPERVISORS**

Kevin R. Kuhn, Chairman

Michael J. Rodgers, Vice Chairman

Paul J. Hogan, Member

Charles A. Philips, Member

Hugh D. Willig, Member

ATTEST:

Linda M. Csete, Secretary