

NOISE BARRIER WALL FACT SHEET

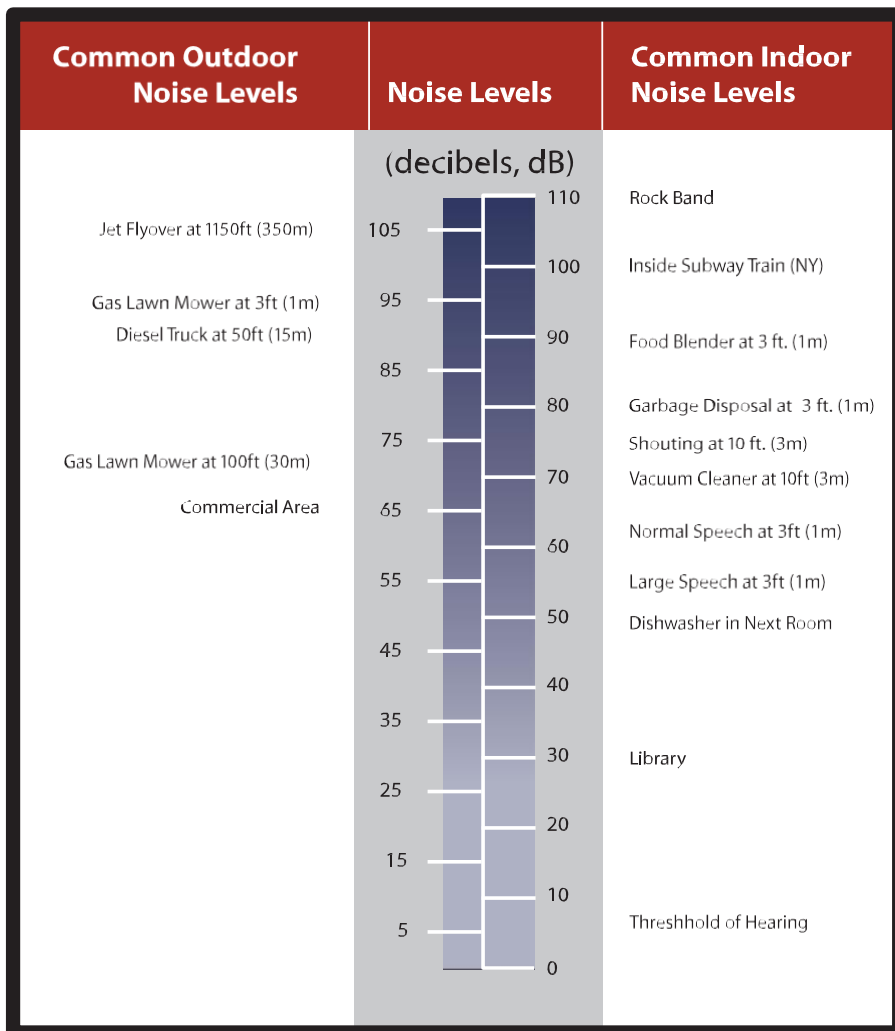
What is noise? How is it measured?

Noise is defined as unwanted sound and can come from both man-made and natural sources. Sound levels are measured in decibels (dB) and typically range from 40 to 100 dB. As a rough guide:

- A 3 dB increase can barely be detected
- A 5 dB increase is clearly detectable
- A 10 dB increase is twice as loud as the starting noise level

Because human hearing is limited in its detection of very high and low frequencies, “A-weighting” is commonly applied to sound levels to better characterize its effects on humans. A-weighted sound levels are expressed as dB(A). The chart on this page shows typical noise levels for some common sources.

Because noise in our daily environment varies over time, and sustained noise levels (such as a nearby highway) interfere with our daily activities to a greater extent than short, louder noises (such as a single car horn), traffic noise analyses typically consider average noise levels over a one- hour period.



Who regulates highway noise? How do you determine a noise “impact”?

The Federal Highway Administration (FHWA) has developed regulations (23 CFR 772) that specify the requirements that highway agencies must meet on federally funded highway projects, and the Connecticut Dept. of Transportation (CTDOT) has outlined its implementation guidance in its highway traffic noise abatement policy. The policy establishes two criteria for identifying traffic noise resulting from a highway project. The first is where future predicted noise levels would “approach or exceed” a set of Noise Abatement Criteria (NAC) established by FHWA regulations. For outdoor uses in residential areas, the NAC is 67 dB(A); CTDOT defines approaching as within 1 dB (i.e. 66 dB(A) for residential areas). Therefore, locations where future noise levels are predicted to be 66 decibels or higher are considered “impacted.”

The second criteria for identifying an “impact” involves locations where noise levels are expected to increase by 15 decibels or more over existing levels.