



COMMONWEALTH OF KENTUCKY  
TRANSPORTATION CABINET  
transportation.ky.gov

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## Resident Noise Questions and Answers

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*Q: I have lived in my current home for 15 years and the noise levels keep getting louder from the adjacent highway. Can I get KYTC to conduct a noise analysis in order to have a noise abatement wall built to lessen the noise from the highway?*

A: When completing highway projects, the KYTC uses federal funding to modify highways, such as adding lanes, vertical/horizontal alteration to the highway that will result in traffic being closer to residences. When these projects are in the planning stage a "Traffic Noise Impact Analysis" is completed. The study initially determines if there are residences or other sensitive land uses potentially impacted by traffic noise levels. These studies are very thorough and involve extensive computer modeling to determine noise levels at individual residences, schools, churches, medical facilities etc. These studies usually reach out to 500 feet from the edge of pavement and occasionally out to 800 feet. The only current mechanism available to KYTC to evaluate highway noise levels is if a KYTC Six Year Plan, federally funded highway project is being designed for your area. If there is no federally funded highway project that is being planned or designed in your area then KYTC cannot conduct a noise analysis.

*Q: There is an interstate widening project being designed and built adjacent to my house. Was a noise analysis conducted? How can I see the results?*

A: Interstate projects are federally funded by regulation, therefore a Noise Impact Analysis was or will be completed in your area, and depending on your distance from the proposed edge of the new highway your home was likely included in the noise modeling process. Typically residences less than 500 feet from the edge of pavement are included in the study.

*Q: What is the KYTC Noise Policy?*

A: The KYTC Noise Policy is a document used by KYTC and Environmental Consultants. The KYTC Noise Policy must remain in compliance with Federal Regulation 23 CFR 772. The policy provides the necessary guidelines to ensure that Kentucky residents and their properties, as well as other land uses, are provided protection from excessive noise increases when federally funded highway construction projects may alter the horizontal or vertical extent of a roadway. In addition, if a road is re-stripped or altered in manner that will alter traffic flow or volume a noise

analysis will be completed. The KYTC Noise Policy is updated every five years, and must be approved by the Federal Highway Administration.

*Q: I have heard KYTC plans to widen my road. How do I find out when this will happen and will a noise study be done for my residence?*

A: All road/highway projects are approved through the KYTC Six Year Plan. You can access the Six Year Plan (SYP) through the link provided. [Kentucky Six Year Plan Map](#)

*Q: A noise study was completed in my area a few years ago. Since that time my home along with several other houses and a couple of condominiums have been built in the same area. Can you perform another noise study that will include these new residential properties?*

A: By regulation for a residence to be modeled for an upcoming Type I Federal Highways project, it must at least have a building permit in place at the time the noise analysis is initiated. Once a project is let for construction no additional noise studies can be completed, as the costs for noise barrier construction are included in the overall construction budget of the project.

*Q: Do trees and undergrowth foliage shelter my home from highway noise?*

A: Trees and shrubbery provide very little protection from highway traffic noise. Generally speaking noise waves simply wrap around the tree and continue without losing much energy. Only a very small segment of the sound wave is deflected, reflected or absorbed by trees and foliage.

*Q: My neighbors are getting a noise wall. Why am I not getting one also?*

A: This can be a very complex answer. When a Noise Analysis is completed many factors are taken into account, such as distance to roadway, terrain, flora, shielding from other structures, etc. Also if it is determined that it is reasonable to construct a noise barrier, the barrier needs to meet certain criteria in order to be constructed. **The barrier must benefit at least three impacted receptors.** It must be built in a manner in which it will not interfere with driver sight lines, won't impede storm water drainage and can be constructed on current KYTC ROW. Also it must be cost effective. **A cost effective barrier is considered to be a structure that can be built benefitting at least three receptors at a cost of \$30/ft<sup>2</sup>/benefitted receptor.**

*Q: Can you tell me if a noise study has ever been conducted for my area?*

A: Yes, please contact us with your specific location and we can help you. Please email Craig J Craig PG, KYTC DEA [Craig.craig@ky.gov](mailto:Craig.craig@ky.gov) with any additional questions or concerns.

## Definitions

- 1) **Benefited Receptor.** KYTC defines a benefited receptor as the recipient of an abatement measure that receives a noise reduction at or above the minimum threshold of 5 dB(A).
- 2) **Date of Public Knowledge.** The date of approval of the Categorical Exclusion (CE), the Finding of No Significant Impact (FONSI), or the Record of Decision (ROD), as defined in 23 CFR 771.
- 3) **DEA.** Kentucky Transportation Cabinet's Division of Environmental Analysis.
- 4) **Decible (dB).** A logarithmic unit that expresses the ratio of the sound pressure level being measured to a standard reference level.
- 5) **Decibel A-Weighted (dB(A)).** Frequencies to which the human ear does not respond are filtered out when measuring and predicting highway noise levels resulting in the A-weighted scale.
- 6) **Design Year.** The future year used to estimate the probable traffic volume for which a highway is designed, typically a minimum of twenty (20) years into the future at the time of project initiation.
- 7) **Existing Noise Levels.** The worst noise hour resulting from the combination of natural and mechanical sources and human activity usually present in a particular area.
- 8) **Reasonableness.** The combination of social, economic, and environmental factors considered in the evaluation of a noise abatement measure. A determination of reasonableness for abatement measures will include consideration of a numerous range of factors
- 9) **Feasibility.** The combination of acoustical and engineering factors considered in the evaluation of a noise abatement measure.
- 10) **FHWA.** Federal Highway Administration.
- 11) **Impacted Receptor.** A receptor that has a traffic noise impact.
- 12) **KYTC.** Kentucky Transportation Cabinet.
- 13) **NEPA.** National Environmental Policy Act.

## Helpful Links

[2020 KYTC Noise Analysis and Abatement Policy](#)

[Noise Analyses and Associated Noise Reports](#)

[FHWA Questions and Answers](#)

[Kentucky Six Year Plan Map](#)