

>> Noise Analysis Process Overview

The Traffic Noise Model (TNM) is used to measure existing sound levels, to develop a noise model and to predict future sound levels.

» Noise impacts occur when:

- A receptor with a predicted future traffic noise level which approaches or exceeds the WisDOT Noise Level Criteria (NLC) for considering noise walls for different land use categories. NLC is divided into land use categories that include residential areas, serene/quiet lands, parks, schools, hotels, offices, etc.
- When predicted future traffic sound levels exceed existing levels by 15 dB or more.

» In order for a noise wall to be provided, it must be feasible, reasonable and likely to be incorporated into the project.

Feasible:

In order for a noise wall to be considered feasible it must:

- Have a minimum of one impacted receptor achieve a five (5) dB noise reduction.
- Be constructible and meet design standards.
- Be compatible with the study purpose and need.
- Not result in impacts that would offset noise reduction benefits.

Reasonable:

In order for a noise wall to be considered reasonable:

- The total cost of the noise wall must not exceed \$50,000 per benefitted receptor.
- Each benefitted receptor must experience a minimum of eight (8) dB noise reduction.
- One receptor or common use area must achieve the department's noise reduction design goal of nine (9) dB.

Should a proposed noise wall be considered feasible and reasonable, a vote would occur after the study and during final design. A wall must receive a vote of support from a simple majority of all votes cast by the benefitted receptors to be constructed.

One feasible and reasonable noise wall location was identified and is located along the east side of US 51 just north of Commercial Avenue. See the roll plot for exact location.

What is a noise receptor?

A noise receptor refers to a specific location where noise levels are measured or predicted to assess the impact of traffic noise. These receptors typically represent areas where people are likely to be affected by noise, such as residential homes, schools, parks, or businesses. Noise receptors help determine how traffic noise affects the surrounding environment.

