

Start

### Field Measurements

- Document existing noise levels at representative sites
- Validate noise models (measured levels +/- 3 decibels of model levels)

### Noise Level Modeling

- Develop noise models of project area roadways and topology
- Model noise levels at receptor sites (homes, businesses, parks, etc.)
- Model existing and future conditions, and conditions if improvements are made (use 20-year traffic projections)

### Noise Mitigation Modeling (Feasibility and reasonableness)

- Defined in MnDOT Noise Requirements:
- Feasibility**
- Acoustic feasibility (5 decibels reduction to be considered benefited)
  - Site constraints
- Reasonableness**
- Noise reduction design goal (reduction of at least 7 decibels at minimum of one benefited receptor)
  - Cost effectiveness (\$78,500 per benefited receptor)
  - Noise wall voting (viewpoints of benefited residents and property owners)

**We are here**

- Results of the Highway 5 noise analysis are expected in fall 2024 and will determine if a noise wall is warranted in specific locations.
- If a noise wall is warranted, the County will work with benefiting property owners to determine if a noise wall is wanted (potentially in late 2024/early 2025).

Impacts identified?

No

Noise analysis is complete

Yes

- Noise levels approaching or exceeding Federal Highway Administration noise abatement criteria
- 66 decibels (noise level for residential use)
- Substantial noise increase (5 decibels or more increase between future build noise levels)

Meets feasibility and reasonableness?

No

Noise analysis is complete

Yes

Feasible and reasonable noise walls are proposed for construction