



MnDOT Noise Barriers

Major Facts and Findings:

- Federal regulations require that states evaluate the need for noise abatement, such as building noise barriers, when receiving federal funding to construct new roads or expand existing roads.
- Between 2007 and 2012, the Minnesota Department of Transportation (MnDOT) spent \$30 million building new noise barriers on federal highway projects; state contributions to noise barrier costs are proportional to its spending on other parts of a federal project.
- Minnesota is more likely to build noise barriers on federal projects than other states we selected for comparison.
- On federal projects, MnDOT's procedure for assessing public support favors the building of noise barriers.
- MnDOT spends \$2 million annually on a state-funded noise barrier program available only in the Twin Cities metropolitan area.
- MnDOT's method for prioritizing potential state-funded noise barrier projects does not fairly rank some locations.

- MnDOT has no ongoing schedule or funding mechanism for noise barrier maintenance.
- MnDOT has made key noise barrier policy decisions with limited outside input and has not always documented the reasons for its choices.

Key Recommendations:

- MnDOT should change its procedure for assessing public support for noise barriers on federal projects.
- MnDOT should create a pathway for communities outside the metropolitan area to become eligible for state-funded noise barrier projects.
- MnDOT should revise its method of prioritizing state-funded noise barrier projects.
- MnDOT should develop long-term schedules and funding plans for noise barrier maintenance.
- MnDOT should increase transparency in its noise barrier policy decision making.

The Minnesota Department of Transportation (MnDOT) should improve some of its highway noise barrier policies and practices.

Minnesota is more likely to build noise barriers than other states.

MnDOT's method of deciding where to build state-funded noise barriers is not fair to some communities.

Report Summary

As required by state and federal laws, the Minnesota Department of Transportation (MnDOT) evaluates and, if necessary, mitigates the effects of traffic noise. Noise barriers are the most common means to reduce the traffic noise heard at neighboring residences.

Federal regulations require each state to set criteria for building noise barriers on federally funded highway construction projects. These criteria, which include such factors as noise reduction amount and barrier cost, differ from state to state. The federal regulations are triggered only when highways are built or expanded; federal regulations do not address noise from existing highways.

State-level policy choices cause Minnesota to build noise barriers on federal highway projects more frequently than other states.

We compared Minnesota's criteria with those adopted by nine states we selected for comparison. Our analysis showed that Minnesota will build noise barriers in circumstances where the other states would not. This difference is due in part to MnDOT policy choices and in part to stringent noise standards set by the Minnesota Pollution Control Agency.

Under federal regulations, MnDOT must assess whether local property owners and residents support the construction of a noise barrier. MnDOT's procedure for doing so favors the building of barriers. MnDOT's approach assumes that property owners and residents support noise barriers unless they explicitly vote otherwise. As a result, noise barrier opponents often must assemble

supermajorities to prevent barriers from being built. MnDOT should reassess and redesign its procedures.

MnDOT should modify its state-funded noise barrier program.

Since 1997, MnDOT's Metro District, which administers department operations in the Twin Cities metropolitan area, has run a state-funded program to build noise barriers on existing highways.

Because the funding (\$2 million annually) comes from district-level discretionary funds, it is only available for locations inside the metropolitan area. We think the program's geographic restrictions are inappropriate. Since the program uses state money, all locations in Minnesota meeting MnDOT's criteria should be eligible.

MnDOT uses mathematical formulas to assess potential noise barrier locations and rank them on a priority list. Locations move up the list very slowly; MnDOT built only eight state-funded barriers in the six years from 2007 to 2012.

MnDOT's ranking method is not fair to some communities. Locations with very similar characteristics can be separated by 20 or more places on the list, a difference that can mean an extra wait of more than a decade. Additionally, MnDOT's ranking method does not give appropriate weight to locations that experience exceptionally loud traffic noise.

MnDOT has no ongoing schedule or funding mechanism for noise barrier maintenance.

Noise barriers have been a low priority for MnDOT maintenance teams. Metro District's maintenance staff

MnDOT should open its policy-making activities to greater outside involvement.

have not kept a comprehensive list of all noise barriers in their jurisdiction. MnDOT prioritizes repair projects that affect public safety; noise barrier deterioration rarely meets that threshold.

A recent study commissioned by MnDOT found that its older noise barriers were in good condition. Nonetheless, as long as MnDOT is building new noise barriers, it should identify a funding mechanism to ensure it can keep up with maintenance needs.

MnDOT has developed its noise policies administratively with insufficient transparency.

Despite demonstrated public and legislative interest in noise barrier issues, MnDOT has not sought public input when revising its noise

abatement policies. However, MnDOT has involved local governments, unlike other states.

MnDOT has not documented the rationale for some key decisions, making it difficult to later determine why a certain approach was taken. For example, MnDOT has built noise barriers primarily out of wood since the 1970s without ever fully investigating the costs and benefits of alternative materials. Few other states routinely build wooden noise barriers.

Given the ongoing public interest in MnDOT's noise barrier activities, the department should open up its policy-making activities to greater outside involvement and scrutiny. Doing so would improve public communication and limit the department's reliance on the institutional memories of key staff.

Summary of Agency Response

In a letter dated October 11, 2013, Minnesota Commissioner of Transportation Charles Zelle wrote that MnDOT generally “believes the report is accurate and agrees with its findings.” He said that MnDOT is initiating a review of its existing noise policy and will convene a Noise Policy Review Committee by the end of 2013 that “will include technical experts as well as advisory committee members to consider citizen concerns.” With regard to the state-run noise barrier program, Zelle wrote that MnDOT would be “reviewing the mathematical distributions and methodology as recommended in the audit” and said that the department would consider the evaluation’s recommendation that the program be available statewide. The response is printed with the full report and is also available at the Web site below.

The full evaluation report, *MnDOT Noise Barriers*, is available at 651-296-4708 or:
www.auditor.leg.state.mn.us/ped/2013/mndotnoise.htm