

## Chapter Trans 405

## SITING NOISE BARRIERS

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**Trans 405.01 Purpose.** In accordance with s. 3052 (3g) (b), 1987 Wis. Act 27, this chapter sets forth the procedures and criteria used by the department for evaluating and selecting site locations for noise barrier installation and for ensuring local participation in the siting process.

History: Cr. Register, August, 1989, No. 404, eff. 9-1-89.

**Trans 405.02 Definitions.** In this chapter:

- (1) "Department" means the department of transportation.
- (2) "Existing noise level" means the highest hourly noise level caused by existing conditions in a particular area.
- (3) "Future noise level" means the highest hourly traffic noise level based on estimated traffic volumes within a 20 year period after the completion of construction of the new highway facility.
- (4) "Noise barrier" means any device, which reduces the transmission of highway traffic noise from a highway to an adjacent receptor, including, but not limited to, earth berms, walls made from timber, metal, concrete, or any combination thereof.
- (5) "Noise level" means the sound level obtained through use of A-weighting characteristics. The unit of measure is the decibel (dB), commonly referred to as dBA when A-weighting is used.
- (6) "Receptor" means an outdoor place where frequent human use occurs and a lowered noise level would be of benefit.
- (7) "Residence" means the official location of a household.
- (8) "Retrofit project" means a proposed project for the construction of noise barriers along an existing highway.

History: Cr. Register, August, 1989, No. 404, eff. 9-1-89.

**Trans 405.03 Applicability.** (1) The provisions of this chapter shall apply to all freeways and expressways under the jurisdiction of the department under ss. 59.965 and 84.295, Stats.

(2) This chapter is to be applied so as to avoid conflict with obligations of the department, under ss. 84.015 and 84.03, Stats., to comply with criteria and standards of federal agencies for obtaining and using federal funds.

History: Cr. Register, August, 1989, No. 404, eff. 9-1-89.

**Trans 405.04 Siting criteria and policies.** (1) Noise barriers shall be designed to provide protection only to the ground floor of abutting buildings and not other parts of the buildings.

(2) For the department to consider a site for construction of a noise barrier, the site shall meet the following criteria:

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(a) For retrofit projects, a receptor shall be exposed to existing noise levels which equal or exceed the levels in Table 1.

(b) For new highway projects, a receptor shall have predicted future noise levels which equal or exceed the levels in Table 1 or which exceed existing noise levels by 15 decibels or more.

(c) A noise barrier protecting a receptor shall reduce noise levels by a minimum of 8 decibels.

(d) The total cost of a noise barrier may not exceed \$30,000 in 1988 dollars per abutting residence. The department may annually adjust this \$30,000 maximum figure up or down based on changes in the construction price index after 1988. Other land use categories shall be analyzed on a site specific basis to determine cost effectiveness.

TABLE 1

## NOISE LEVEL CRITERIA FOR CONSIDERING BARRIERS

<u>Land Use Category</u>	<u>Leq(h)<sup>1</sup> (dBA)</u>	<u>Description of Land Use Category</u>
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	—	Undeveloped lands.
E <sup>2</sup>	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

<sup>1</sup> "Leq" means the equivalent steady-state sound level, which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same period. For purposes of measuring or predicting noise levels, a receptor is assumed to be at ear height, located five feet above ground surface.

"Leq(h)" means the hourly value of Leq.

<sup>2</sup> "Use of interior noise levels shall be limited to situations where exterior noise levels are not applicable.

History: Cr. Register, August, 1989, No. 404, eff. 9-1-89.

**Trans 405.05 Local participation.** The department shall ensure local participation in the siting of noise barriers through the following:

(1) The department shall hold one or more informational meetings, in a location convenient to the locality to be affected by the siting, to pro-Register, August, 1989, No. 404

vide an opportunity for local participation in the selection and development of the noise barrier installation project. The department shall arrange for published notice of each informational meeting. The department shall also give direct written notice of each informational meeting to each person owning real property or leasing a residence in the following locations:

(a) Within 500 feet in any direction from the proposed noise barrier or

(b) Within the areas directly behind the proposed noise barrier and directly across the highway from the proposed noise barrier where the highest hourly traffic noise level equals or exceeds 67 decibels.

(2) For a proposed noise barrier project to be considered for construction, the local government, prior to completion of final design of a proposed noise barrier, shall furnish the department with:

(a) A formal resolution supporting the proposed barrier project.

(b) Documentation of its land use controls which:

1. Apply to land adjacent to freeways or expressways; and

2. Would reasonably eliminate the need for state-funded noise barriers in highway rights-of-way adjacent to future developments.

History: Cr. Register, August, 1989, No. 404, eff. 9-1-89.

**Trans 405.06 Program.** The department, upon receiving a community request for a noise barrier project, shall evaluate and program eligible retrofit noise barrier projects in the highway programming process. Factors considered in this process shall include, but are not limited to, cost of the project, date of adjacent development along the proposed site, traffic noise levels, number of benefiting receptors, community acceptance of the proposed noise barrier, and predicted noise level reduction.

History: Cr. Register, August, 1989, No. 404, eff. 9-1-89.