



Evaluation of 23 CFR 772 for Opportunities to Streamline the Noise Study Process

FHWA-HEP-17-061

This Fact Sheet is intended to aid States in considering and implementing various strategies to meet the Federal Highway Administration's (FHWA) goal of expediting project delivery by promoting efficiency in the Highway Traffic Noise analysis process. This fact sheet identifies ways to:

- Streamline the requirements and procedural processes of the FHWA Noise Regulation (23 CFR 772)

The Fact Sheet focuses on 23 CFR 772 and on its relationship with the National Environmental Policy Act (NEPA).

ESTABLISHING NOISE SCREENING PROCEDURES

Some Type I projects have very low potential to create noise impacts and could benefit from screening. Examples include widening of a low-volume road through an agricultural area or where the sensitive land uses are at distances beyond where impacts would be expected. A noise screening analysis assesses the potential for noise impacts in order to determine if a detailed noise study should be undertaken.

If the screening analysis indicates that the project will not create noise impacts, the NEPA document would include the results with a statement that the project conforms to 23 CFR 772 and no impacts were predicted. Sections addressing construction noise and information for local officials would still need to be included.

Streamlining does not mean waiving or relaxing regulatory requirements.

Streamlining identifies ways to more efficiently meet those requirements by establishing realistic project timeframes and adhering to them through interagency cooperation.

DEFINING NEPA CRITERIA RELATING TO NOISE

Proper analysis during planning and programming phases can ensure a project is described accurately so that analyses are performed commensurate with potential environmental impacts.

Logical Termini

23 CFR 772 states that *'If a project is determined to be a Type I project under this definition, then the entire project area as defined in the environmental document is a Type I project'*. Highway projects may include improvements that are Type I in one location and others that are Type III (if constructed as part of a stand-alone project) in another location.

Cumulative and Indirect Impacts

The noise regulation does not address cumulative and indirect impacts, although they must still be considered under NEPA. Proper Planning and Scoping can help define the level of analysis required for the cumulative and indirect noise impacts of a project during the NEPA and Preliminary Engineering phases.

INTEGRATING NOISE INTO THE PLANNING PROCESS

The transportation planning process has historically not included noise as a factor. Under Section 1310 of MAP-21, the Federal lead agency may adopt and use planning products in the environmental review process of a project, even where planning begins at the local level. Evaluating the potential noise impacts of a project during the planning process allows for noise-compatible land use planning or reconsideration of project alternatives.

DEVELOPING NOISE STUDY DOCUMENTATION TEMPLATES

Templates include standard sections, figures, and tables to ensure consistency of reporting between projects in a State. The use of standard templates streamlines the review process, since results are presented in a uniform manner. The use of templates also helps to ensure readability and understanding by reviewers and the general public.

ESTABLISHING STANDARD NOISE STUDY PROCEDURES

SHAs are required to have written noise policies but not written noise procedures. Comprehensive noise procedures include technical details on the processes that should be followed when applying the SHA's noise policy. These procedures specify which features should be modeled and how, which ensures consistent modeling practices and assumptions statewide. It also creates a more efficient review process for SHA staff.

NCHRP Report 791, "Supplemental Guidance on the Application of FHWA's Traffic Noise Model," and Report #: FHWA-HEP-16-018, "Recommended Best Practices for the Use of the FHWA Traffic Noise Model (TNM)" identify best practices to accurately and consistently model various components; discusses the sensitivity and accuracy of various methods; and identifies best practices for input parameters.

Standard guidelines for conducting model validation can include the number and duration of measurements, number and location of measurement sites, and reporting requirements.

Considering other non-barrier noise abatement could also be streamlined by standardizing the analysis process. For example, on uncontrolled access roadways - early coordination and planning can help identify whether access controls are a desirable option to the local community and do not compromise roadway safety or project Purpose and Need.

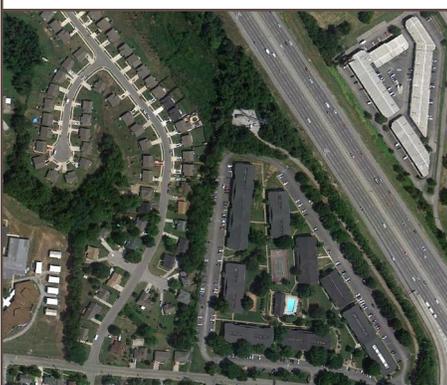
DEFINING 23 CFR 772 CRITERIA IN STATE NOISE POLICIES

Isolated Impacts - Feasibility Criterion

The choice of the feasibility criterion values has implications for whether a noise barrier must be evaluated for isolated impacts. Isolated properties require further evaluation under SHA policies that use one (1) or a percentage of impacted receptors in their feasibility criteria.

Noise Barrier Cost Updates - Reasonableness Criterion

The regulation requires SHAs to reevaluate the cost reasonableness criterion at least every five years. Converting to a method based on barrier area in square feet per benefited receptor instead of cost per benefited receptor can expedite this analysis by eliminating the issues related to changing costs over time.



Viewpoints of Benefited Property Owners and Residents - Reasonableness Criterion

Consider a mixed-use development where a barrier to protect single-family residences would have to extend a significant distance past apartments and vice versa to be effective.

State policies can contain standard procedures for assessing the viewpoints of the benefited property owners and residents in cases where one barrier benefits multiple communities. This can reduce review and consultation times by standardizing the process.