

Connect the DOTs: A Keystone Approach to Highway Traffic Noise Initiatives

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The Pennsylvania Department of Transportation (PENNDOT) has recently undertaken several initiatives in the area of highway traffic noise abatement that may provide useful insight to other state transportation agencies. These initiatives include the review and revision of the Department's Project Level Highway Traffic Noise Handbook, experiences in advancing legislatively driven Type II projects through the transportation improvement process, and the creation of a Barrier Binder to improve statewide awareness of noise barrier design options. These experiences and endeavors are not unique to Pennsylvania, and should provide valuable assistance to other DOTs seeking to build on their own knowledge base in the area of highway traffic noise abatement.

The revision of the existing noise policy was broken into a two-stage process, and was largely completed by PENNDOT personnel with the assistance of independent consultants. The first stage involved the review of the existing documents to identify areas requiring clarification/revision. The second stage was focused on initiating changes to the document, including a review of other DOT's policies and FHWA guidance in an effort to perform a comparative analysis and glean ideas from the interpretation and implementation of these guidance documents. This process resulted in the creation of a clear and concise guidance document on highway traffic noise abatement to be used in the Commonwealth.

Additionally, PENNDOT is currently studying and has recently constructed several legislatively driven Type II noise projects. Each of these projects has involved a unique set of challenges, which PENNDOT has successfully addressed to ensure a positive outcome between the Department's guidelines and the legislator/public's desires. Due to the nature and funding of these projects, various areas of contention had to be addressed and rectified, such as selective application of the reasonableness criteria. PENNDOT continually learns from the challenges of these projects, and it is these experiences that may provide invaluable insight for other DOTs faced with or analyzing Type II projects.

The creation of a "Barrier Binder" by the Commonwealth was undertaken to address the deficient knowledge in noise barrier design and options available to PENNDOT. The binder includes a wide variety of information including an index of approved vendors, examples of various materials, colors, and textures for use in barrier construction, as well as resource materials, guidance documents and pertinent PENNDOT and FHWA publications. This binder was created for the use of PENNDOT's 11 Engineering Districts to improve their working knowledge of the entire noise abatement process, from analysis and design to the selection of textures and materials for use in construction.