



**To:** City of Countryside

**From:** Illinois Tollway

**Date:** January 3, 2019

**Subject:** Proposed Noisewalls in Countryside

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The Illinois Tollway's (Tollway) Traffic Noise Study and Abatement Policy (Policy) provides guidelines for evaluating traffic noise throughout the implementation of projects within the Tollway's capital improvement program. The Policy first establishes the eligibility requirements for a Traffic Noise Study. The Policy then establishes the requirements for considering the construction of traffic noise abatement structures and when traffic noise abatement is feasible and reasonable.

The traffic noise analysis guidance provided in the Policy is based largely on the regulatory material found in Title 23 Code of Federal Regulations Part 772 (23 CFR Part 772) entitled "Procedures for Abatement of Highway Traffic Noise and Construction Noise."

The Tollway, as part of the Central Tri-State Project, conducted a thorough noise analysis in an effort to determine current and future noise levels throughout the project corridor. CMAP 2040 traffic projections were used to determine future noise levels. This effort provided knowledge on where traffic noise impacts occur and are projected to occur. In these areas, a noise abatement analysis was conducted to determine if traffic noise abatement is warranted, per Tollway Policy. First, the process determines if it is feasible to effectively abate traffic noise – a minimum of 5 decibel reduction. Next, the process determines if it is reasonable for the Tollway to implement the abatement measures – a base cost benefit ratio of \$30,000 per benefited receptor is used. Thus, if noise abatement is found to be feasible and reasonable where noise impacts exist or are projected to occur, noise abatement is warranted and will be constructed as part of our Central Tri-State project.

The primary methods of noise reduction are noisewalls and landscaped berms. Both are effective at reducing noise impacts. Various materials can be used to construct a landscaped berm, including surplus soil and materials from the project construction. While landscaped berms are generally more aesthetically pleasing, they require more right-of-way than noisewalls. A typical width to height standard used for landscaped berms is 3:1. This ensures the stability and structure of the berm. The additional right-of-way for the berms would require significantly more property acquisitions and therefore landscaped berms are not cost-effective noise abatement structures for this corridor.

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The noisewalls throughout the corridor will be uniform in type, except in locations where alternate materials may be used due to structural requirements. The noisewall material is expected to be pre-cast concrete with a formliner cast directly into the concrete.



*Photo: example of pre-cast concrete with formliner*

The height of the noisewalls through Countryside are expected to vary from 12 to 20 feet over the pavement elevation. Existing noisewalls will be replaced throughout the City with walls of similar height and length. Importantly, there is one location where improvements are proposed.

- A new 12-foot noisewall will be constructed along the east side of the ramp from northbound I-294 to northbound I-55. The noisewall will connect to or be part of the planned noisewall improvements as part of IDOT's I-55 managed lanes project.

Additionally, from the stakeholder and public outreach process, noise concerns were also raised near the Wolf Road exit ramp. At the exit ramp, a noisewall was evaluated along the mainline in that area as well as along the southeast side of ramp. The study did not indicate that walls were warranted in the area.

The noise analysis for the corridor is complete and the reports are posted on the Tollway's website. The location of the proposed noisewall in relation to the right-of-way line is still under design and won't be finalized until design is complete. Noisewall locations will be finalized in consultation with local municipalities and will take into account existing and future land uses.