

Noise measures in road construction works on the Dutch HWN

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Summary

Road administrations use typical noise measures like low noise pavements (LNP) and noise barriers to mitigate traffic noise. Low noise pavements are the primary noise measures used on the HWN in the Netherlands. Single layer open porous asphalt (SLPA, grading size 16) is used as wearing course standard. Two-layer open porous asphalt (TLPA) is used as noise measure to compensate the increase of noise as result of traffic growth and small changes in infrastructure. Application of Noise barriers is suitable in situations with high noise levels over 65 dB, or to mitigate traffic noise on new building locations.

For decision making on noise measures a kind of Cost benefit analysis (CBA) is used next to an assesment on the applicability of noise measures. Application of LNP is not appropriate on roads with heavy traffic load that results in limited lifetime of the wearing course, or in cases that the effect of the measure is limited. Application of noise barriers is far more complex due to regulations, policy demands and getting consent of residents living nearby. Regulations are requirements in road design, safety demands and demands in landscape and urban design.

For tendering road construction works The Dutch Road Directorate (Rijkswaterstaat) uses contract documents with functional requirements for noise measures. In the presentation examples of requirements for noise measures are described. Furthermore a view is given on results of noise measures in projects and on practice of verification and validation of requirements.

PACS no. xx.xx.Nn, xx.xx.Nn

1. Introduction

To be finished
