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Noise and vibration control in multiplex cinemas

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Abstract

Noise and vibration control requirements for multiplex cinemas are normally very strict. Inside the rooms, low background noise and vibration levels below the perception threshold need to be guaranteed. The noise and vibration sources could be external (road, rail and air traffic) and/or internal (adjacent cinema rooms, escalators, car parks, air conditioning plants, people in public areas). Every possible source needs to be considered in order to reduce the noise and vibration generated and transmitted through the building. In the paper an example of noise and vibration control design and verification is presented. The prescriptions of the company were very strict due to the particular environment in which the building was designed: a few meters from the railway and close to Genoa Airport, the industrial area and the dock area.

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