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**Ground-borne vibration case studies in residential constructions**

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Case studies are examined for several new high-rise residential and hotel buildings proposed for construction over or near underground and surface transit systems. Baseline vibration measurements were taken on grade and existing building structures and projected against standard functional vibration criteria (ANSI S3.29 / ISO 2631 2). Through post-construction testing and client feedback, the vibration and structure-borne noise impacts were field verified. Study results offer insight into the correlation between these vibration criteria and the subjective human perceptions of various sensitivities. Further items of discussion include the relative effects of various architectural constructions, building types, and applications as well as mitigating sound and vibration controls.