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Presentation Outline

One of the key challenges in wood frame construction is building acoustics. Wood frame construction is becoming increasingly popular for developers with the recent allowance of 6-storey construction coupled with the potential savings in both cost and construction time. With greater heights on the horizon (e.g., 10-storey apartment building in Melbourne, 14-storey apartment building nearing completion in Bergen, proposed 18-storey residence in Vancouver, proposed 26- storey tower in Vienna), the number of wood frame construction projects is only expected to increase, and with it the need to address acoustical issues.

This presentation will discuss acoustics in wood frame structures and the value that can be added through early planning and good acoustic design. The goal of good acoustic design is to meet the sound isolation and impact noise control targets required by code and expected by occupants of modern residential and commercial designs. This session will provide background for understanding the transfer of sound through walls and floors from both air-borne (e.g., talking) and structureborne (e.g., walking) sound. With a basic understanding of how sound travels from one space to the next, we will build to provide the principles behind sound control and show examples of construction details that are designed to meet code and comfort requirements. Case studies and examples will be used to illustrate many of the topics covered.