Sounding off on Seattle Space Needle renovation
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The Seattle Space Needle, a city landmark for nearly 60 years, recently underwent a renovation to enhance the visitor experience. Acoustic designers were tasked with ensuring that the new design is a quiet one. Credit: Nic Lehoux

Bruck and his team developed the acoustical design criteria for the renovation project, enhancing future visitor experience.

The needle revamp has an improved observation deck with 360 degrees of uninterrupted views of Seattle and the surrounding area, as well as The Loupe—the world's first and only rotating glass floor restaurant.

"Acoustical materials were selected to complement the architectural concept for the spaces and provide effective reverberant sound control," said Bruck. "Particular areas for design were the observation levels, which was noisy during high visitor periods, and the restaurant. Sound isolation between the two was also an important component."

Mechanical system noise control was an essential consideration, as the newly installed revolving floor mechanism requires 12 motors to operate 37 tons of weight.

"The original building from 1962 was not designed for modern equipment, and there was absolutely no room to expand the footprint of the mechanical rooms," said Bruck. "The machinery and system were completely redesigned to provide an innovative approach to moving the rotating floor reliably into the future."

More information: acousticalsociety.org/asa-meetings/

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