

# SOUND TRANSMISSION

AND THE 2018

BC BUILDING CODE



## THREE WAYS TO DEMONSTRATE COMPLIANCE

With the new BC Building Code presenting requirements for the revised control of the airborne sound transmitted between adjoining spaces, flanking noise paths via adjoining constructions, such as the floor, ceiling or sidewalls, are now addressed.

Instead of merely checking that each separating partition meets an STC rating of 50, as per the previous building code requirement, we can now choose to meet the ASTC criterion of 47, which better reflects the acoustical performance of the building as a whole, especially the in-suite noise levels experienced by occupants.

Learn how to demonstrate compliance through these three methods.



# BKL

**BKL IS AN INDEPENDENT  
CONSULTING FIRM**

in the field of acoustical engineering since 1966. Based in North Vancouver, British Columbia, we serve clients throughout Canada and the world. Our team of experts is complemented by an array of specialized instrumentation and computing facilities, tools that allow us to deliver world-class sound and vibration monitoring, diagnostics, predictions, and assessments to recognized standards and guidelines.

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BKLConsultants

## 1 PRESCRIPTIVE PROCEDURES

Choosing an assembly with an STC rating of at least 50, measured in accordance with the ASTM procedures or conforming to the Fire and Sound Resistance Tables presented in the BCBC 2018, PLUS choosing adjoining constructions that conform to the generic options proposed to limit flanking noise via the building's structure

### How can BKL help?

BKL can review floor plan layouts, recommend appropriate separating assemblies between residential units and every other space in a building and confirm compliance with the new requirements to limit flanking noise.

## 2 FIELD MEASUREMENTS

Field measurements in accordance with the ASTM procedures resulting in an ASTC rating of at least 47.

### How can BKL help?

BKL can perform ASTC field measurements and prepare comprehensive ASTC reports for your projects.

## 3 DESIGN PROCEDURES

Choosing an assembly and adjoining constructions with an ASTC rating of at least 47, calculated in accordance with the methods presented in the BCBC 2018

### How can BKL help?

BKL can guide you through those methods to confirm compliance, based on the Simplified or Detailed Method for predicting ASTC ratings. The National Research Council Canada (NRC) has prepared a free on-line application called soundPATHS in order to obtain an estimated ASTC rating for a list of different assemblies. RR-331 Guide to Calculating Airborne Sound Transmission in Buildings is also available to confirm compliance for various types of construction. BKL can also predict the ASTC rating of standard and non-standard assemblies through calculations that require laboratory data for the sound insulation of the materials in the separating partitions and also flanking sound insulation.