

RAMIN BEHBOUDI, M.ENG., P.ENG.

Principal



Summary

Ramin Behboudi has more than 24 years of experience providing consulting in acoustics, noise and vibration control design and analysis for a wide range of projects. In addition to his extensive portfolio of work in the power generation sector, he has been involved in numerous other noise and vibration assessment and mitigation projects. He has appeared in court and in hearings to give evidence and to provide litigation support. Ramin has conducted a number of acoustic and vibration training seminars in various Thornton Tomasetti offices, and has directed a thesis related to the acoustics of healthcare facilities at the Ontario College of Art & Design University (OCAD). Ramin joined Thornton Tomasetti in 2017 through its acquisition of Swallow Acoustic Consultants.

Areas of Technical Expertise

- Mechanical Noise and Vibration Investigation and Mitigation
- Structural Vibration Investigation and Mitigation
- Interior Acoustics
- Environmental Noise and Rail Vibration

Education

- M. Eng., Mechanical Engineering, 2000, University of Toronto
- B. Eng., Aerospace Engineering, 1996, Ryerson University

Registrations

- Licensed Professional Engineer in Ontario

Professional Activities

- Member, Consulting Engineers of Ontario

Select Project Experience

Municipal/Government

Waterloo Regional Consolidated Courthouse, Waterloo, ON. Acoustic and noise control recommendation services for a new 420,000-square-foot facility with 29 courtrooms. Recommendations for the P3 project included control of exterior noise and provision for a quiet indoor environment.

Cultural and Worship/Sports/Performance

Laurier Brantford YMCA Athletics and Recreation Centre, Brantford, ON. Acoustical consulting services, including acoustics, noise and vibration control, for a 5-storey, 162,500-square-foot athletics and recreation center, consisting of gyms, a pool, fitness rooms, a café and other areas. The building is a partnership between Wilfrid Laurier University's Brantford campus and the YMCA.

Higher Education/Student Life/Residential

University of Toronto, Innovation Centre, Mississauga, ON. Acoustical consulting services for a four-storey addition to the existing 2-storey Kaneff Centre that serves business, commerce and management programs. Scope included acoustics, noise and vibration control for the case-study rooms, behavioural research labs and space beneath the rotunda.

Healthcare

Casey House HIV/AIDS Health Care Centre, Toronto, ON. Acoustic consulting services, including acoustic, noise and vibration control design for a 58,000-square-foot hospital to provide inpatient and day-healthcare. The project combines new construction and the renovation of a heritage property. Scope includes room acoustics, partition analysis, mechanical noise and vibration isolation and duct-borne noise control.

CONTACT

Ramin Behboudi, M.Eng., P.Eng.
23-366 Revus Avenue
Mississauga, ON L5G 4S5
+1.905.766.2520
RBehboudi@ThorntonTomasetti.com
www.ThorntonTomasetti.com

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Residential/Hospitality

Four Seasons Hotel & Residence, Toronto, ON. Acoustical design services for two towers housing a 257-room hotel, 204 luxury condominiums, and conference center with a ballroom, banquet hall and meeting rooms. Scope included the acoustical separation of condominium and hotel suites and consulting for reduction of general HVAC, electrical and mechanical room noise and vibration. The team provided commissioning testing to verify performance upon completion of construction.

Tuned Mass Damper

T-Mobile Arena, Las Vegas, NV, USA. Tuned mass damper design, testing and commissioning services for a 670,000-square-foot, 18,500-seat multipurpose event center. The facility will host a range of functions, with the potential to house NBA and NHL games, concerts, boxing, mixed martial arts programs and award shows. Thornton Tomasetti also provided structural engineering services.

Commercial

Bremner Tower, 20 York Street, Fitness Area, Toronto, ON. Acoustical consulting services for fitness area fit-out on the third floor of the new 30-storey commercial tower. Services included a vibration assessment and noise control recommendations.

Power Generation

Vanderweil Engineers, MATEP LLC, Boston, MA, USA. Acoustical assessment and noise control recommendations for a gas compressor package.

Sworn Testimony

Examination/Deposition, *Kikites v. York Condo. Corp.* regarding noise transfer between stacked suites in a residential building. In the Ontario Superior Court of Justice, Toronto, ON.

Examination/Deposition, 1100 Millecento Residences Condo. Assoc. v. Plaza Constr. Grp. Florida, LLC, et al. regarding sound transfer between condo demising walls and street noise transfer to building bathrooms. In the Circuit Court of the 11th Judicial Circuit, Miami-Dade County, FL, USA. September 28, 2021.

Trial, *Hard Luck Bar*, Toronto, ON. Noise transfer from a live music venue to the neighboring buildings in a residential neighborhood. Appearance and sworn testimony in court. Noise transfer assessment, litigation support for Tsantis Law.

Hearing, Toronto Market St. Expansion, Toronto, ON. Environmental noise impact study related to construction of new restaurants in a residential neighborhood. Litigation support for Vassos Law LLP.

Litigation

Exim 25 Bellair Street, Toronto, ON. Construction vibration monitoring, forensic investigation and litigation support for McMillan LLP.

MATEP LLC, Boston, MA, USA. Compressor enclosure noise emission study, compliance assessment, acoustic investigation, mitigation and litigation support for Locke Lord LLP.

Gyukaku Restaurant, Toronto, ON. Restaurant noise and vibration transfer study within a mixed-use building. Investigation, acoustic mitigation and litigation support for Macdonald Sager Manis LLP.

One of a Kind Pasta Restaurant, Toronto, ON. Restaurant noise and vibration transfer to a neighboring building. Acoustic assessment, mitigation and litigation support for Borden Ladner Gervais LLP.

TSCC #1790, 601 Kingston Road, Toronto, ON. Gym noise and vibration transfer in a mixed-use building. Analysis, investigation and litigation support for Fine & Deo Condominium Lawyers.

TSCC #1806, 3650 Kingston Road, Toronto, ON. Transformer noise transfer in a residential building. Investigation and litigation support for Baldwin Sennecke Halman LLP.

MCC #156, 733 Deveron Crescent, London, ON. Noise transfer between residential suites. Investigation and litigation support for Fine & Deo Condominium Lawyers.

TSCC #2172, 35 Hollywood Avenue, Toronto, ON. Chiller noise transfer in a residential building. Investigation and litigation support for Fine & Deo Condominium Lawyers.

CrossFit Bolton, 77 Pillsworth Road, Bolton, ON. Gym noise and vibration transfer in commercial complex. Assessment, mitigation and litigation support for Fine & Deo Condo Lawyers.

Select Papers, Lectures and Publications

"Microphone Probe for In-Duct Measurement of Gas Turbine Exhaust Noise," Proceedings of ASME Turbo Show, Munich, Germany, May 2000 (co-author)

"Soundscape in Dementia Care Environment," Proceedings of the 177th Meeting of the Acoustical Society of America in Louisville, KY, USA, May 2019 (co-author)

"Using Tuned Mass Dampers to Control Imperceptible Motions," Proceedings of the 32st International Modal Analysis Conference, Orlando, FL, USA, February 2014 (co-author)