

LISA A. DAVEY, P.E.

Senior Principal



Summary

Lisa Davey has structural engineering expertise in a variety of project types, including commercial office buildings, laboratories and healthcare facilities, retail, dormitories, higher education facilities, residential, and transportation projects. Her responsibilities include coordinating and supervising the technical aspects of projects, and interaction with architects, building facility and property managers, developers, building owners, contractors and attorneys.

Lisa has worked with attorneys on behalf of different client types, providing litigation support on a variety of issues, including standard of care for both plaintiff and defense teams. She has experience giving sworn testimony in depositions, trial and arbitration, and has participated in mediation events.

Areas of Technical Expertise

- Structural Engineering
- Forensic Structural Engineering
- Emergency Response

Education

- M.S.C.E., 2000, Tufts University
- B.S.C.E., 1996, Union College

Registrations

- Licensed Professional Engineer in NY, MA and RI

Professional Activities

- President (2021-2022), Vice President (2020-2021), Structural Engineers Association of Massachusetts
- Vice Chairman, Massachusetts Board of Building Regulations and Standards, 2020-present
- Board Member, Massachusetts Board of Building Regulations and Standards, 2017-2019
- Board of Directors Member, Structural Engineers Association of Massachusetts, 2016-2020
- Mid-term Review Critic, Harvard Graduate School of Design, Fall 2013, 2014, 2017
- Guest Lecturer, Harvard Graduate School of Design, 2014
- Design Review Critic, Boston Architectural College, 2014
- Instructor, Yale School of Architecture, Graduate Course in Systems Integration, 2011-2013
- Guest Lecturer, University of Massachusetts at Amherst, 2019
- Guest Lecturer, Massachusetts Institute of Technology, 2019, 2020

Select Project Experience

Structural Engineering

2 Drydock Avenue, Boston, MA. Structural engineering and vibration control services for a 12-story, 298,700-square-foot building containing office space with 12.5-foot floor-to-floor heights, three levels of above-grade parking and one level of retail space at the ground floor and a 7,500-square-foot rooftop terrace. The scope includes vibration prediction and mitigation solutions for rail-induced vibration. It also involves the prediction of footfall-induced vibrations within the office floors to ensure a comfortable environment.

Regeneron Building 767 Renovation

, Tarrytown, NY.

Renovation of a 1960s steel-framed, 76,950-square-foot building to accommodate a vivarium and laboratory spaces. Structural challenges included a lateral system upgrade, demolition and replacement of third-floor framing to accommodate laboratory equipment, new rooftop mechanical systems and elevator penthouse expansion. Scope included design of a new entry canopy and loading dock.

UMass Amherst

, Student Union Renovation, Amherst, MA.

Structural engineering, building envelope, building analysis and LEED consulting services for the renovation of a 101,000-square-foot student union. The project included major structural modifications, raising the roof to create a new 2-story ballroom, design of a new lateral system, and existing foundation retrofits with new micro-piles.

Forensic Structural Engineering

Confidential, Boston, MA. Structural investigation of one historic and three high-rise buildings adjacent to a new high-rise construction with deep excavation. Investigation included non-linear analysis to understand the effects of potential building settlement due to excavation. TT also provided construction monitoring of historic building during adjacent construction.

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I-35 West Bridge Collapse, Minneapolis, MN. Forensic vehicular bridge collapse investigation on behalf of the consortium of attorneys representing the victims.

Confidential, Cambridge, MA. Structural investigation regarding excessive slab deflections at the building's perimeter framing and subsequent curtain wall panel fit-up issues.

Emergency Response

Seaview Condominiums, Revere, MA. Emergency response services to immediately shore and stabilize a failed steel column supporting 12 stories. Services included stabilization design, contract documents for jacking the column into its original position and a permanent repair.

Confidential High Rise, MA. Emergency response services for a connection failure during the construction of a 22-story steel-framed building. Retained by the general contractor as a third-party structural engineer; failure situation was assessed and peer review was provided for the proposed remedial work. Scope also included on-site review of all critical steel connections post-incident.

Sworn Testimony

Deposition and Trial, James and Nancy Ainsworth vs. Cianci Engineering, LLC. State of Connecticut Superior Court. Case involved structural engineering standard of care regarding foundation remediation work for a private residence. 2017.

Arbitration, LTF Construction Company, LLC vs. Integrated Engineering Solutions, Inc. and William E. Dailey, Inc. Case involving structural engineering standard of care of a precast panel design for a health club facility. February 2016.

Deposition and Trial, Douglas and Kristen Rawan vs. Kanayo Lala, P.E. Commonwealth of Massachusetts Superior Court Department of the Trial Court. Case involving structural engineering standard of care for a private residence. October 4, 2013 and October 1, 2014.

Litigation

City of Medford v. Weston and Sampson, Medford, MA. Litigation support for standard of care claim regarding underground utility replacement project which experienced delay and cost overruns. 2019.

MWRA v. Green Int'l, Watertown, MA. Litigation support for standard of care claim regarding design of water main replacement project which experienced pipe connection failures. 2019.

CSDC v. Hunter Modular. Litigation support for standard of care claim regarding construction of a modular school building. Investigated the structural design and construction of a 2-story modular school building. 2019.

Dassault Systems, Waltham, MA. Litigation support services regarding the design of an office building with below-grade parking that experienced a partial collapse. Investigated the adequacy of the structural framing and connection design and assessed the structural engineer of record's standard of care.

Animal Rescue League of Massachusetts, MA. Litigation support services with investigation of alleged structural and architectural design defects of light-gage metal frame building and renovation of existing concrete masonry unit structure.

Soccer Stadium, UK. Litigation support services related to a multi-million-dollar delay claim on a 90,000-seat stadium.

Independence Harbor 1, Edgewater, NJ. Litigation support services that included investigating adequacy of steel and reinforced concrete-framed structures to resist design loads.

German School of New York, Westchester County, NY. Litigation support services regarding the design and construction of a long-span gymnasium roof that collapsed during erection.

Alternative Dispute Resolution

Confidential dispute between Convention Center Authority and structural engineer of record, regarding standard of care for new parking garage foundation design. 2019.

Dispute between a higher education university and a general contractor, which included structural engineering and building envelope analysis for a construction claim.

Dispute between a government agency and a design-build contractor, which included structural and mechanical engineering analysis for a construction claim.

Select Papers, Lectures and Publications

"Lifting Columns of Existing Structures Under Existing Loads," ASCE Forensic Engineering 7th Congress, Miami, FL, November, 2015 (author and presenter)

"Structural Investigation of the Sherman Minton Bridge Closure," ASCE Forensic Engineering, 2012, (co-author)

CONTACT

Lisa A. Davey, P.E.
27 Wormwood Street, Suite 200, Boston, MA 02210
617.250.4100
LDavey@ThorntonTomasetti.com
www.ThorntonTomasetti.com