

SEAN A. LEVENGOD, P.E., LEED AP

Vice President



Summary

Sean Levengood joined Thornton Tomasetti in 1999 and has experience in the structural design and management of commercial, educational, institutional, industrial and residential projects. His expertise includes the design of steel, concrete, masonry, timber and cold-form metal framing, and he has experience in new design, renovation, rehabilitation and adaptive reuse. Sean also has solid experience with insurance consultation projects, building envelope assessment and repair, and the structural evaluation and rehabilitation of historic structures.

Areas of Technical Expertise

- Structural Engineering
- Forensic Structural Engineering
- Building Envelope - Investigations and Repairs

Education

- B.S., Civil Engineering, 1998, Pennsylvania State University

Registrations

- Licensed Professional Engineer in DE, NJ, and PA
- LEED AP

Professional activities

- Member, American Institute of Steel Construction (AISC)
- Volunteer, Community Design Collaborative

Select Project Experience

Structural Engineering

West Chester University, The Sciences & Engineering Center and The Commons, West Chester, PA. Structural engineering services for a 3-story, 176,000-square-foot academic building and student center comprising dining services, classrooms, labs, offices and a meeting center. The steel-framed building supported by shallow foundations contains large open floor plans containing several multi-story atrium's and is designed to achieve LEED Silver certification.

Chestnut Street Bridge, Crane Analysis

, Philadelphia PA.

Construction engineering services to perform an analysis of the existing Chestnut Street Bridge for supporting mobile cranes and concrete trucks. Scope included provision of full calculation package for review and approval by the Pennsylvania Department of Transportation.

Penn State Brandywine, Student Union

, Media, PA.

Structural design of a 31,000-square-foot, 2-story, steel-framed student union building. The building includes meeting rooms, a book store, kitchen and server, and dining area. The building is tucked into a hillside placing the northern section of the second floor at grade and it is clad with stone and brick veneer with large strip windows.

University of Virginia, IVY Mountain Musculoskeletal Center

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Charlottesville, VA. Structural design of a 200,000-square-foot medical center plus a 110,000-square-foot parking garage.

Science History Institute Museum

, Philadelphia, PA.

Structural engineering services for the conversion of the existing 1865 John McArthur, Jr. First National Bank building into an integrated museum and conference center. Project included the removal of existing bearing walls to provide connectivity with lobby and loggia spaces, the support of glass floor balconies, the design of a curved glass monumental stair, and the detailing of support for glow panel exhibits.

*Denotes work performed with previous employer.

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Main Post Office Renovation, Philadelphia, PA. Structural design of the complex renovation and conversion of an 900,000-square-foot historic post office building for office use. The project included a seismic assessment of the existing building, removal of several interior bays to create an interior atrium, support of elevators above existing rail lines, blast hardening, design of a glass atrium roof, preservation of the retail corridor and repairs to the existing surrounding viaduct structure. The project achieved LEED Gold certification.

Building Envelope

Alden Park Building Assessment, Philadelphia, PA. Condition assessment of campus buildings built circa 1920. The buildings were primarily cast-in-place concrete with exterior masonry walls of brick veneer and ornate cast stone.

Howard R. Young Correctional Institute, Wilmington, DE. Condition assessment and design services for the exterior masonry wall restoration of a 2-story correctional facility built in 1970. Project involved evaluation of existing conditions, preparation of construction drawings and construction administration for the replacement of the existing exterior veneer concrete masonry units with a new system based on the latest design standards in an active correctional facility.

Cokesbury Village, Hockessin, DE. Condition assessment of the existing roof and exterior façade of a retirement living complex. The evaluation included the 11-story central tower and the 3- and 4-story south and north wings. Scope included design of structural repairs, provision of construction administration services for deteriorated cast-in-place concrete and precast plank, preparation of roof replacement drawings and provision of construction administration services for the south wing plaza, including the replacement of the existing pavers.

Forensics/Investigations

Mountaire Silo Collapse, Westover, MD. Emergency response related to the partial collapse of a concrete feed processing structure.

401 N. Broad Street, Philadelphia, PA. Structural evaluation of cracked and delaminated concrete slabs.

1359 River Avenue, Lakewood, NJ. Investigation of the structural elements of a facility utilized for the sale and repair of recreational vehicles to evaluate the scope of damage caused by a fire.

American Self Storage, Union City, NJ. Investigation of reported damage to a self-storage facility during the storm classified by the ISO Property Claims Services as serial no. 90.

500 East London Grove Rd., West Grove, PA. Investigation to the cause of the partial collapse of an exterior barn masonry wall.

450 South Henderson Rd., King of Prussia, PA. Investigation of the cause and origin of reported damage to site elements from a reported sinkhole.

Team Nissan, Vineland, NJ. Investigation of the structural elements of a car dealership and service center to evaluate the scope of damage caused by a fire.

200 Spring Garden, Philadelphia, PA. Peer review of structural drawings for a steel framed building with concrete plank floors.

Our Lady of Angels Convent, Aston, PA. Investigation services for a pipe collapse.

Marina Bay Towers, Wildwood, NJ. Forensic evaluation of a multi-story senior citizen apartment building related to alleged conditions associated with CAT-90 Sandy.

Tropicana Parking Garage Collapse, Atlantic City, NJ. Emergency response and forensic engineering services, structural peer review, and continuous on-site presence following a collapse during construction that caused four fatalities. Scope included a review of nonlinear finite element models produced by other investigators.

Miller Park, Analysis, Milwaukee, WI. Structural analysis and investigation of five 600-foot-long movable roof panels. Services included the investigation and replacement of the pivot bearings for the Major League Baseball stadium's retractable roof.

Litigation

Confidential Building Renovation Investigation, Lititz, PA. Litigation support in the evaluation of structural design documents for errors and/or omissions for the renovation of a 5-story 140,000 SF building.

Confidential Building Structural Modification Investigation, Philadelphia, PA. Litigation support in the evaluation of proposed structural modifications to two adjacent buildings.

CONTACT

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