MAY 2023

# **TIMOTHY LYNCH, P.E.**

# Senior Vice President



#### Summary

Timothy Lynch joined Thornton Tomasetti in 2022. He brings more than 35 years of experience with 17 years spent at the New York City Department of Buildings (DOB). Prior to serving as the Chief Engineer for the Enforcement Bureau at the DOB, Tim was Assistant Commissioner for Investigative Engineering Services, where he led teams for forensic engineering, excavation, concrete, façade, and emergency response, among others. He is a recognized expert in building forensics and was involved in the development and implementation of the 2008, 2014, and 2022 New York City International Code Council (ICC) building codes, laws, and rules. His background also includes the restoration of many landmark buildings, including Carnegie Hall and New York City Hall in Manhattan and Brooklyn's Park Slope Armory as well as the Brooklyn Academy of Music.

## **Areas of Technical Expertise**

- Construction Safety, OSHA Compliance & Building Codes
- Forensic Structural Engineering
- Emergency Response
- Building Demolitions

#### **Education**

• B.E., Structural Engineering, 1986, Queens University Belfast

## **Registrations & Certifications**

- Licensed Professional Engineer in NY
- European Engineering Registration (EUR ING)
- CEng Institute of Engineers of Ireland (CEng)
- New York City Licensed Site Safety Manager
- OSHA-30 Certification

#### **Professional Activities**

- Board Member, Structural Engineers Association of New York (SEAoNY), 2014-2016 and 2021-present
- NYC Department of Buildings, Structural Engineering Committee and Subject Matter Expert on Chapter 16: Structural Design, Chapter 17: Special Inspections; and Chapter 18: Soils and Foundations, 2006-2022
- Committee Member Emergency Response, Structural Engineers Association of New York (SEAoNY)
- Guest Speaker, AISC Metropolitan Chapter, DOB Code Chapters on Administrative Codes, including Chapter 16: Structural Design, Chapter 17: Special Inspections, Chapter 18: Soils and Foundations, and Chapter 33: Safeguards During Construction or Demolition

## **Project Experience**

## Construction Safety, OSHA Compliance & Building Codes

Construction Safety/OSHA Compliance: Subject matter expert on construction and emergency site safety.

Emergency stabilization of all types of partially or fully collapsed structures, structural demolitions using hand tools, mechanical equipment and cranes/hoisting and rigging equipment. Subject matter expert on stabilization of partial and full excavation and foundation stability issues and collapses using shoring, bracing, and backfilling operations, emergency structural shoring and bracing of construction operations gone wrong, and fire/structural deterioration.

Building Codes and Laws: Subject matter expert on current and prior 20th and 19th Cent NYC building codes, laws and rules. Committee member and subject matter expert for 2008, 2014, and 2022 NYC Building Code, including Ch 16 Structural Design, Ch 17 Special Inspections, Ch 18 Soils and Foundations, and Ch 33 Safeguards During Construction or Demolition Operations. The current NYC Building Code is based on the International Building Code and International Code Council publications covering contemporary codes throughout the U.S.

Building construction typologies, population and occupancy. Subject matter expert in statutory 19th and 20th century building typologies, including wood framed, unreinforced masonry with wood joists, reinforced concrete, cast iron, steel, and populations and occupancy, including one to two family residences, multiple dwellings, mixed use dwellings, public use dwellings and commercial use.

#### **Forensic Structural Engineering**

**Demolition and Adjaent Building Stabilization,** Lower East Side, Manhattan, New York, NY.\* Emergency demolition of a 19th century house of worship and old law tenement due to fire, and working with adjacent building owners, shoring and bracing of their buildings to allow re-occupancy.

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Various Excavation Collapses: Carroll Gardens, Bedford Stuyvesant, Brighton Beach, Brooklyn NY.\* Included underpinning/support of excavations and adjacent buildings and structures, emergency demolition or stabilization of impacted buildings, and writing Commissioners Orders incident violations. Prepared reports for enforcement. Appeared for DOB at depositions, administrative tribunals/New York City Office of Administrative Trials and Hearings (NYC OATH) and Supreme Courts.

**Northern Blvd,** Queens, NY.\* Large excavation support wall collapse significantly impacting NYC highways and utilities. Emergency backfilling, shoring and bracing campaigns and reconstruction of adjacent roadways. Prepared reports for enforcement and appeared for DOB at administrative tribunals/ NYC OATH and Supreme Courts.

#### **Emergency Response**

**Hurricane Sandy,** New York, NY.\* Physically surveyed buildings, supervised inspectors and engineers, wrote reports, reported to local authorities and produced dashboards.

**Hurricane Ida,** New York, NY.\* Physically surveyed buildings, supervised inspectors and engineers, wrote reports, reported to local authorities and produced dashboards.

**Hurricane Katrina,** Bay St. Louis, MI and LA.\* Physically surveyed buildings, supervised inspectors and engineers, wrote reports, reported to local authorities and produced dashboards.

**Mutual Aid Hurricane Maria and 2020 Earthquake,** San Juan, PRI.\* Physically surveyed buildings, supervised inspectors and engineers, wrote reports, reported to local authorities and produced dashboards.

#### Litigation and Sworn Testimony

Henry Street Partial Building Collapse, Brooklyn NY.\* Multiple appearances at NYC OATH and NYS Supreme Courts against owner for incomplete renovation of two landmarked townhouses which caused public safety hazard, and the lack of protection of the adjacent structures which were damaged. 2010-2021.

Northern Boulevard, Queens, NY.\* Appeared at NYC OATH as fact witness for enforcement actions against owner, contractor, design engineer due to support of excavation collapse and failure to protect adjacent properties, public way, roads and infrastructure. Preparation for depositions – postponed numerously. Court / litigation continues.

Lafayette Street, Manhattan NY.\* Façade and building stability issues, including a failure to maintain the building and the façade in a safe condition. Appeared for the Department OATH, NYC Landmarks Public hearing to compel owner to repair the unsafe conditions. 2016.

Upper West Side Partial Facade Collapse, Manhattan NY.\* Partial façade collapse causing one serious injury and one fatality. Appeared for NYC DOB as fact and expert witness in NYC OATH, NYS Supreme Court Civil and Criminal Court against owner and building manager for failing to maintain building façade and appurtenances which lead to partial collapse. Preparation for depositions - postponed. Court / litigation continues. 2015-present.

Glenmore Avenue, Brooklyn NY.\* Underpinning collapse involving owner developing a site that their own adjacent tenement was going to be underpinned. The underpinning failed and caused a worker fatality. Criminal charges brought against owner and the case went to trial. Appeared as an expert for the Department for trial and subsequent depositions and subsequent charges against licensed engineer. 2009.

Chambers Street, Manhattan, New York, NY.\* Involved a 5-story loft collapse resulting from collateral damage from adjacent new 9-story building piles undermining and severely damaging the loft building's historic foundation wall which was buckled. 2008.

## Papers, Lectures and Publications

- "Structural Challenges with Shared-wall buildings," Historic Preservation Symposium: Rowhouse City, Philadelphia, PA, September 2022 (co-presenter)
- "19th Century Corner Lot Buildings," New York City Department of Buildings, Build Safe/Live Safe Conference, New York, NY, 2021 (presenter)
- "Evaluation of Existing and Adjacent Buildings: Know Your Neighbor and Keep Them Safe," New York City Department of Buildings, Build Safe/Live Safe Conference, New York, NY, 2020 (presenter)

Various articles on existing buildings, prior codes, how to locate data on prior code buildings. Structural Engineers Association of New York (SEAoNY), 2019-2022 (author)

- "New York City's 1M Buildings: Building Research and Mapping using ArcGIS BIG DATA," International Scientific Symposium on Safety in Heritage,. Madrid Spain. EKABA Foundation and the KALAM Space for Fine Art, Spain, May 2019 (presenter)
- "Classifying New York City's Housing Stock: Clarifying a Difficult Issue," New York City Department of Buildings, Build Safe/Live Safe Conference, New York, NY, 2018 (co-presenter)
- "Chapter 17: Special Inspections," NYC Department of Buildings, Build Safe/Live Safe Conference, New York, NY. May 2017 (co-presenter)
- "Facades and Retaining Walls: Laws, Rules and Filing Protocols," NYC Department of Buildings, Build Safe/Live Safe Conference, New York, NY, May 2016 (co-presenter)

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"Excavations and Existing Buildings; 2014 Building Code," NYC Department of Buildings, Build Safe/Live Safe Conference, New York, NY, May 2015 (co-presenter)

"Engineering Solutions in Safe Construction," NYC Department of Buildings, Build Safe, Live Safe Conference, New York, NY, May 2012 (co-presenter)

High Risk Construction Operations Analysis (HRCO Analysis), NYC Department of Buildings, report prepared on behalf of Commissioner LiMandri for in depth review of high risk construction operations covering hoisting and rigging operations, concrete operations, excavation operations. 2008 (author)

"NYC DOB Guidelines for Excavation and Major Projects," NYC Department of Buildings, report prepared on behalf of Commisioner LiMandri for developers, design professionals, contractors, and owners regarding maintenance requirements for existing buildings of parties working on adjacent lot line construction, 2006-2012 (author)

"CBJ Snyder Schools—Design and Construction Methods and Relevant Building Codes," NYC Landmarks Conservancy, 1998 (co-author)

"Design and Construction of Guastavino Vaults for Buildings and Bridges," NYC Landmarks Conservancy, 1996 (co-author)



# CONTACT

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