

### Matthew L. DeSimone | Senior Associate



#### EDUCATION

- Villanova University
  - Bachelor of Science, Civil Engineering, 2008
  - Master of Science, Civil Engineering, 2009

#### PRACTICE AREAS

- Structural Design
- Repair and Rehabilitation
- Failure/Damage Investigations
- Structural Analysis

#### REGISTRATIONS

- ICC Certified Structural Steel and Bolting Special Inspector
- Professional Engineer in NY and PA

#### PROFESSIONAL AFFILIATIONS

- American Institute of Steel Construction (AISC)
- American Society of Civil Engineers (ASCE)
- Delaware Valley Association of Structural Engineers (DVASE)

#### CONTACT

mdesimone@wje.com  
215.845.6666  
www.wje.com

#### EXPERIENCE

Matthew DeSimone has a broad range of experience in structural system design, repair design, structural evaluation, and field investigation. He has experience with commercial, residential, and office buildings, stadiums, parking garages, and tunnels.

Prior to joining WJE in 2013, Mr. DeSimone was a senior engineer at Thornton Tomasetti, where he designed structural systems for several tall buildings and long-span structures around the world, constructed of steel, reinforced concrete, and masonry. During this time, he gained proficiency in analytical modeling, lateral force-resisting system design, steel connection detailing, and construction support services.

While a graduate student at Villanova University, Mr. DeSimone worked as a research assistant in the Structural Engineering Research Laboratory where he conducted research on the flexural behavior of continuous GFRP-reinforced concrete beams.

#### REPRESENTATIVE PROJECTS

##### Structural Design

- Baku National Stadium - Baku, Azerbaijan: Modeling and design of cast-in-place concrete bowl structure and steel braced frame lateral system for 68,000-seat stadium\*
- Epic Deep Space Auditorium - Verona, WI: Construction sequencing analysis and jacking analysis for 4,500-ton roof lift during construction of underground auditorium\*
- Kamal Mixed-Use Development - Doha, Qatar: Modeling and design of seven-story flat-slab basement and seventy-nine-story steel and concrete mixed-use tower\*
- Five Crescent Drive - Philadelphia, PA: Modeling and design of steel braced frame lateral system design and floor system\*
- Rogers Place - Edmonton, Alberta: Modeling and design of exterior wall trusses and roof trusses for NHL arena's Winter Garden\*

- Panasonic U.S. Headquarters - Newark, NJ: Modeling and design of floor system\*
- Government Agency Tenant Space - New York, NY: Design of nine-story, 276,000-square-foot tenant space, including office, training, fitness, and file storage space for tenant
- 2 Park Avenue - New York, NY: Feasibility study for removal of office floors and design of elevator extension and roof bulkhead
- 1250 Broadway - New York, NY: Modeling and design of steel dunnage support for 100,000-pound cooling tower

##### Repair and Rehabilitation

- Baruch College Canopy - New York, NY: Repair design to mitigate deflections of composite sandwich panel canopy
- Taino Towers - New York, NY: Repair design of wind connections to precast panel facade
- New York Life Insurance Building - New York, NY: Repair design for limestone facade rosette anchorage and design of roof maintenance outrigger system

##### Failure/Damage Investigations

- Horse Ridge Cellars - Stafford Springs, CT: Punching shear failure of concrete lid of below-grade wine cellar
- 1 Harmon Plaza Parking Garage - Secaucus, NJ: Partial collapse of steel-framed parking deck
- Huntingdon Place Condominiums - Huntingdon Valley, PA: Shear cracking of post-tensioned beams in podium structure

##### Structural Analysis

- Coindre Hall Boathouse - Huntington, NY: Inspection and analysis of steel roof trusses, wood scissor trusses, terracotta wall system, and concrete foundation walls
- New York Life Insurance Company Data Center - Clinton, NJ - Inspection and analysis of reinforced concrete columns and assessment of building seismic performance
- Monmouth Mall Culvert - Eatontown, NJ: Condition assessment of pipe culvert under mall parking lot

\* *Indicates with previous firms*