

MICHELLE L. OLENDER, P.E.

Associate Principal



Summary

Michelle Olender joined Thornton Tomasetti's New York office in 2004 and relocated to the Fort Lauderdale, Florida office in 2008. For the first 17 years of her career, her primary focus was the structural design of complex new buildings, varying in size, usage and structural system. Michelle has also completed numerous peer reviews of other engineers' designs, as well as renovations, structural condition assessments, and repairs of existing buildings. Her current focus is forensic investigations of building failures or defects. Michelle has been recognized within the firm for her work teaching and mentoring new engineers. She started the Florida chapter of the Women@TT program, an initiative aimed at achieving gender equity, and played an integral role in developing Thornton Tomasetti's firm-wide mentoring program.

Areas of Technical Expertise

- Structural Engineering
- Structural Peer Reviews
- Forensic Structural Engineering

Education

- M. of Architectural Engineering, 2003, Pennsylvania State University
- B. of Architectural Engineering, 2003, Pennsylvania State University

Registrations

- Licensed Professional Engineer in FL

Professional Activities

- Mentoring Program Director, 2020-2021
- Women Advancement Committee, 2019-2020
- Project Management Training Facilitator, 2019-2020
- Corporate Sustainability Liaison, FL, 2012-2019
- Corporate Value Award "We Challenge People to Grow"; 2019

Select Project Experience

Structural Engineering

La Clara, West Palm Beach, FL. Structural engineering services for a 25-story, 385,000-square-foot cast-in-place concrete residential tower with parking in the basement and on level 1, a lobby and amenity deck on level 2, and 84 residential units. Unique building features include a 45-foot-long post-tension cantilever canopy and a sculptural terrace at level 3, supported by a transfer slab above the parking garage. Managed the project from concept through construction.

Florida International University—FIU, Tamiami Hall, Miami, FL. Structural engineering for a 693-bed, 13-story undergraduate student housing building, including study areas, multipurpose space, and an elevated breezeway. The residential levels, beginning at level 3, utilize tunnel form cast-in-place concrete construction. A post-tension transfer slab at level 3 supports the tunnel form residential floors above the more open lobby space at levels 1 and 2.

Raymond F. Kravis Center for the Performing Arts, Expansion, West Palm Beach, FL. Structural engineering to improve the visitor experience. These upgrades include Dreyfoos Hall Lobby expansion, pedestrian-friendly plaza, new entrance/exit garage ramp and a new valet garage.

Dania Jai Alai, Renovation, Dania Beach, FL. Structural engineering services for the renovation and conversion of an existing jai alai facility into a casino and entertainment venue, while maintaining a small viewing area for jai alai. Scope includes retrofitting the building with new shear walls to bring the lateral system to code.

Mr. C Hotel, Coconut Grove, FL. Structural engineering design for a 5-story 80,000-square-foot hotel in the heart of Coconut Grove. The project includes 100 guestrooms and suites, private outdoor terraces, and a luxury rooftop restaurant and bar with unobstructed views of the ocean and bay.

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University of Miami, Residential Housing, Phase I, Coral Gables, FL. Structural design services for a 523,000-square-foot dormitory containing 1,100 beds for upper classmen. The facility will be a mix of apartments and suites and include learning spaces in the common areas, conference rooms, ball-rooms, gaming spaces, study lounges and meditative spaces. The design of the project emulates the over-water colony called “Stiltsville” in Miami’s Biscayne Bay, with sparsely placed posts and diagonal struts providing the architectural impression as well as the supporting structure.

Jetscape Westside Development, Fort Lauderdale, FL. Structural engineering services for a 3-story terminal building, totaling 25,000 square feet with a porte-cochère on the front and a structural covered area on the rear. There is a 79,000-square-foot hangar with a 5,000-square-foot custom-designed office space.

Structural Peer Review

3510 Biscayne Boulevard, Peer Review, Miami, FL. Structural peer review services for a cast-in-place concrete expansion to an existing 3-story office building built in the 1970s. The project includes a small expansion of the existing floors plus four new parking floors above the existing structure. The new structure is separated from the existing structure and spans over the existing building with a series of post-tension concrete beams. Additionally, there is a new driving ramp structure adjacent to the existing building, provided to access the parking levels.

Paseo De La Riviera, Peer Review, Coral Gables, FL. Structural design peer review services for a mixed-use development including a 204-unit residential building and 245-room hotel with ground floor retail spaces and 636 parking spaces.

400 Biscayne, Peer Review, Miami, FL. Structural design peer review services for a 46-story hotel tower with a ballroom, meeting space, parking, retail and hotel amenities.

Gables Station, Peer Review, Coral Gables, FL. Structural design peer review services for a three-tower, 1.3 million-square-foot mixed-use development with amenity decks, fitness center, retail space and 1,300 parking spaces.

Forensic Structural Engineering

Miami Dade College, Parking Garage Collapse, Doral, FL. Investigation of cause and origin of the partial collapse of a 6-story precast parking garage and assessment of the reparability of the remaining structure. Created analysis models to rule out or confirm potential failure mechanisms.

R.L. James Construction v. Casa Clara, Key Colony Beach, FL. Structural investigation, modeling and litigation support regarding alleged improper balcony replacement in a 3-story conventionally reinforced concrete residential building. Analyzed effects of balcony removal on the remaining portion of the floor slabs, as well as the integrity of the new balcony connections.

Vue Condominium, Ft. Lauderdale, FL. Litigation support regarding alleged construction defects, including deficiencies at balconies and building envelope defects, in a post-tensioned concrete structure. Modeled as-built condition in structural analysis software to determine impact of non-structural column and PT tendon placement on cracks near balcony corners.

Alpine Fresh, Miami, FL. Investigated cracks in the slab of a second-floor storage area of a refrigerated warehouse facility. Reviewed slab condition and provided guidance on additional investigation needed to establish loading limits for the level 2 storage rooms.

Chill Build Miami, Hialeah, FL. Investigated damage to the exterior face of an insulated metal panel façade system for a freezer warehouse facility. Evaluated the cause of damage and appropriateness of proposed repairs.

James Rickards Middle School Collapse, Oakland Park, FL. Investigated the cause and origin of the partial collapse of the middle school roof in March 2021. Performed structural calculations to confirm suspected cause of collapse.

Structural Condition Assessments, South FL. Conducted a series of site visits at existing buildings across South Florida to identify visible signs of structural distress that need to be addressed and report them to the building owners and authorities who have jurisdiction in the wake of the 2021 building collapse in Surfside, FL.

CONTACT

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