
James D. Kelley, M.Sc.Eng., P.E. | Senior Principal Engineer – Large/Complex Loss

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Professional Summary:

Based in New York City since 2006, James D. Kelley (Jim) is a Senior Principal Engineer for EFI's Large/Complex Loss group. Mr. Kelley provides forensic evaluations in Structural & Architectural Engineering disciplines, in addition to construction dispute matters in the region.

With more than 20 years in the design and investigation industries, James has experience in the assessment, forensic investigation, and remedial design for a variety of structures and infrastructure projects. His firsthand practical experience in the engineering/construction industry spans 30 years.

James has diverse demonstrated experience in structural analysis, design, and investigation of residential, commercial, and industrial buildings/structures in addition to ancillary architectural façade systems/structures, heavy civil & subterranean structures, and infrastructure. His experience also encompasses performing Anti-Terrorism Force Protection (ATFP) blast/impact structural design/analysis and preparing advanced finite element computer models of structures for design & behavior/failure investigations.

Mr. Kelley is frequently retained as an expert forensic engineer to evaluate and opine on root cause determination of losses involving structural and architectural design & construction defects and other manufactured or natural catastrophic events.

He has conducted and led many significant investigations within and outside the U.S. mainland for representative attorneys and insurance carriers in large-loss high-value disputes and litigation support matters. He has evaluated residential, commercial, and industrial buildings following major disasters, including Hurricanes Irma and Maria on USVI St. Thomas and Puerto Rico Islands, Hurricanes Florence, Ida, and Ian on the U.S. Mainland Gulf Coast, and Earthquake Damage Assessment of PRPA ports, piers, and structures following the Maria Antonia, Jan. 7, 2020, M6.4 Earthquake that occurred off the southern coast of Puerto Rico. He has also assessed structures following hailstorms, windstorms, floods, vehicle impacts, and fires.

Prior to practicing engineering, Mr. Kelley worked in the Construction field for a decade, achieving the position of General Foreman before leaving the construction industry to become a Professional Engineer. He is therefore experienced with construction means/methods & practices and has conducted evaluations of construction/design defect dispute matters, including adjacent construction structure impact/damage evaluations for Developers, General Contractors, and Building Owners.

Licenses and Certifications:

Professional Engineer, New York, License No. 090397

Professional Engineer, New Jersey, License No. 24GE05956500

Professional Engineer, Connecticut, License No. 0036885

Professional Engineer, Florida, License No. 95486

Professional Engineer, Louisiana, License No. 0047240

Professional Engineer, Texas, License No. 147828

NCEES Record Holder, National Council of Examiners for Engineering and Surveying
Certified, Post-Disaster Building Safety Assessment, CAL OES SAP, ID No. 89779

Select Project Experience:

Forensic and Failure Investigations

Charles Taylor Engineering Technical Services

- DAJ Realty 35 Crosby vs NYC&R Construction & 37 Crosby – New York, NY
Performed adjacent construction impact damage assessment & root-cause forensic analysis litigation support investigation of a seven-story unreinforced masonry building constructed circa 1890 (\$5 Million Claim).
- Sordoni Construction Co. vs 211 West 14th Owner LLC – New York, NY
Performed adjacent construction impact damage assessment & root-cause forensic analysis litigation support investigation of a five-story unreinforced masonry building constructed circa 1901 (\$3.5 Million Claim).
- Allied New Technologies - Logistec Salt Bulk-Storage Structure – Palmetto, FL.
Performed structural assessment and root-cause forensic analysis litigation support investigation and conceptual repair recommendations surrounding a partial roof and end wall structural failure/collapse of a rock salt bulk-storage warehouse structure of A-Frame precast concrete and cast-in-place concrete construction supported on concrete pile deep-foundations. The building was designed & constructed circa 1966 and was 63-feet in height at the roof-peak with approximately 47,000 total square feet of bulk-material storage floor surface area (\$5.6 Million Claim).
- Puerto Rico Port Authority (PRPA) – Puerto Rico
Performed Earthquake damage & causation assessments and prepared conceptual repair recommendations for PRPA sites and structures following the Maria Antonia, Jan. 7, 2020, M6.4 Earthquake (\$22 Million Claim).
 - Ponce Airport Facility: Southern Puerto Rico Capital Airport consisting of seven concrete & steel framed mixed-use structures, aircraft taxiways and take-off runway.
 - Tallaboa Sea Port Facility: Half-mile long precast & cast-in-place concrete pile-supported pier/jetty structure that functioned as a Liquefied Petroleum Gas (LPG) ship-to-shore transfer facility.
 - Guanica Sea Port Facility: Industrial port facility consisting of four individual Port Facility sites, incorporating seventeen primary concrete & steel framed mixed-use building/pier structures, twenty-two concrete & steel bulk-material storage silos, and six ancillary bulk-material conveyance system structures.
- Guayama Correctional Complex 500 – Puerto Rico
Performed structural failure, building envelope, and water intrusion damage and causation assessments of eight low-rise concrete & steel frame building structures following Hurricane Maria (\$5 Million Claim).

- Bopp & Contesta Commercial Apartment Building Properties – New Orleans, LA
Performed structural failure, building envelope, and water intrusion damage and causation assessments of ten three-story commercial URM and wood frame building structures following Hurricane Ida (\$7 Million Claim).
- Terrebonne Recreation Center – Houma, LA
Performed structural failure, building envelope, and water intrusion damage and causation assessment of a two-story prefabricated moment-frame structure with low-slope structural standing-seam metal roof panels following Hurricane Ida (\$1.8 Million Claim).
- Iberville Apartments – New Orleans, LA
Performed structural failure, building envelope, and water intrusion damage and causation assessment of seven story RC concrete frame building with hollow-clay-tile exterior walls following Hurricane Ida (\$4.2 Million Claim).

DeSimone Consulting Engineers

- Navillus Tile, Inc. v. CNY Construction – Times Square, New York, NY
Performed construction/design defect root cause analysis and conducted mediation support surrounding the structural evaluation of a recently constructed twenty story concrete frame addition supported on an existing twenty-two story steel frame building. Conducted site-survey & documentation, evaluation of design and construction documents, construction means/methods and floor slab vertical survey data and building lateral survey data related to reported building addition lateral & vertical deformations, and floor slab & balcony performance and condition issues (\$5.5 Million Claim).
- Metro North vs. City of New York, EDC, and Urban Garden Center – Bronx, NY
Performed railroad viaduct structural damage and remedial design repairs assessment and conducted litigation support services, surrounding a fire that occurred at the Urban Garden Center's storage yard positioned under the viaduct, reportedly necessitating the replacement of the viaduct central main steel column. Evaluated structural damage to the railway viaduct, emergency structural shoring & viaduct repair scope, and repair design approach & construction means/methods in relation to Metro North railway service disruption surrounding the event and implemented repairs (\$4.5 Million Claim).
- One Manhattan Square, 250 South Street – South Street Seaport, New York, NY
Performed façade Muntz metal panel pre-mature corrosion and window insulated glass unit (IGU) structural seal failure forensic root-cause analysis for an eighty-story concrete frame building, while under construction. Led and coordinated investigation and independent materials/product testing team, prepared materials/product testing protocol, oversaw material/product testing & procedures, and evaluated product design, construction means/methods, and product manufacture's testing procedures & results (\$23 Million Claim).

- Two Bridges Tower, 253 South Street – South Street Seaport, New York, NY
Performed forensic root-cause analysis investigation of a twenty-three-story mid-rise concrete frame building adjacent construction-induced foundation settlement and tilt assessment (\$6.3 Million Claim).
- Sea Port Residences, 161 Maiden Lane – South Street Seaport, New York, NY
Performed forensic root-cause analysis investigation of a sixty-three-story high-rise building design/construction mat-foundation settlement and building lateral tilt assessment, while under construction, and assisted preparation of finite element behavior/failure analysis modeling (\$10+ Million Claim).
- Port City Distribution Facility – Wilmington, NC
Performed partial structural collapse and building envelope evaluation of 240,000 sq. ft. precast concrete commercial building structure following Hurricane Florence (\$1.1 Million Claim).
- Casa Bacardi Distillery Facility – Cataño, Puerto Rico
Performed structural failure and building envelope evaluation of twenty-six low-rise commercial steel frame building structures and one mid-rise concrete building structure and led & coordinated investigation team following Hurricane Maria (\$25+ Million Claim).
- Johnson & Johnson Pharmaceutical Facility – Puerto Rico
Performed structural failure and building envelope evaluation of two low-rise commercial steel frame building structures and led & coordinated investigation team following Hurricane Maria (\$25+ Million Claim).
- Johnson & Johnson UPS Distribution Facility – Puerto Rico
Performed HVAC Rooftop Units failure assessment of unit anchorages, following Hurricane Maria.
- AstraZeneca Pharmaceutical Facility – Puerto Rico
Performed structural failure and building envelope evaluation of a low-rise commercial steel frame building structure, following Hurricane Maria.
- Dooney & Bourke Manufacturing Facility – Puerto Rico
Performed structural failure, building envelope, and flood damage evaluation of two low-rise steel frame & concrete construction building structures following Hurricane Maria (\$1.8 Million Claim).
- VWR International Manufacturing Warehouse Facility – Puerto Rico
Performed structural failure, building envelope, and fire sprinkler piping system damage evaluation of two-story steel frame & concrete construction building following Hurricane Maria (\$2+ Million Claim).
- K-Mart Facilities – Saint Thomas, USVI
Performed structural failure and building envelope evaluation of two low-rise commercial steel/masonry retail warehouse structures and led & coordinated investigation team following Hurricane Irma (\$5.5 Million Claim).

RIMKUS Consulting Group

- Tappan Zee Constructors Powder-Cement Storage Steel Silo Collapse – Hudson River, NY
Performed concrete batch-plant barge powder-cement storage steel silo collapse root-cause analysis investigation & litigation support services, surrounding the Tappan Zee Bridge Replacement Construction Project (\$26+ Million Claim).
- Boasso America Building Explosion – Newark, NJ
Performed chemical-tank cleaning/storage facility team coordination & structural assessment for multidiscipline fire/explosion investigation & litigation support services (\$10+ Million Claim).
- SUNY Broome Community College Dormitory – Binghamton, New York
Performed Low-rise modular wood frame dormitory building construction/design vertical-shrinkage defect investigation & litigation support services (\$1.6 Million Claim).
- Equipment Storage Warehouse – Brooklyn, NY
Performed long-span wood bow truss roof system failure investigation, reportedly resulting from MTA track-structure maintenance staging temporarily positioned on the roof structure.
- Airbnb House-Barge Sinking – Far Rockaway, NY
Performed root-cause analysis assessment of non-motorized house barge sinking and coordinated crane-lift recovery of house-barge from dock-waters.
- Numerous Roofing & Façade Systems Failure, Moisture Intrusion, and Hail-Strike Assessments – NY, NJ, FL.
- Building Vehicle Impact Investigations, and Repair Scope Preparation – NY, NJ.

RAND Engineering & Architecture

- 5-7 Dey Street Private Mixed-Use Building – Lower West Side, NY
Circa 1900 seventeen story building adjacent construction damage evaluation of building and foundation settlement w/ 5-inch lateral building lean due to MTACC Dey Street Concourse project general contractor (SKANSKA) adjacent secant pile installation and excavations. Undisclosed settlement in favor of building Owner.
- 131-133 West 28th Street Private Mixed-Use Building – Lower West Side, NY
Adjacent construction evaluation and building foundation settlement investigation regarding damage sustained to existing six story concrete frame building (foundation settlement and building internal structural damage) due to adjacent hotel construction excavations, underpinning, and pile installations.

Structural Condition Assessment & Design

Charles Taylor Engineering Technical Services

- CSR Warehouse – Gowanus Canal, Brooklyn, NY
Performed structural assessment, historical use analysis, and analysis of site geotechnical data for a pier/wharf site and URM masonry structure constructed circa 1930, in support of preparing design recommendations for CommonSense Robotics (CSR) to occupy the building for robotic micro-distribution center operations and associated warehouse storage occupancy use, requiring stringent floor slab surface variation tolerance requirements.
- Indigo Apartments – Atlanta, GA.
Performed structural assessment, documentation, emergency structural shoring, and preparation of conceptual scope of repairs surrounding a partial floor collapse that occurred at an occupied three-story wood frame apartment building, constructed circa 1967.

Metropolitan Transit Authority (MTA / NYCT)

- Master Planning of Grand Central Station subterranean fan-plant structure (Below Park Avenue) – Upper East Side Manhattan, NY.
- Master Planning of Prospect Park subterranean fan plant structure (Below New York City Department of Parks & Recreation Grounds) – Brooklyn, NY.
- Master Planning & Design of Emergency Generator Deployment Program for Subway Tunnels Pump Room Severe Flood/Storm Condition Emergency Power – Lower Manhattan & Brooklyn, NY.
- Design & Construction Administration of Mulry Square Subterranean Fan Plant – Lower West Side Manhattan, NY.
- Flood Mitigation analysis & strengthening design of existing above-ground circa 1932 unreinforced masonry fan plant building – Brooklyn, NY.
- Miscellaneous railway line tunnel & pump-room assessments and concrete/steel remedial design – East River Crossings, Manhattan/Brooklyn, NY.

RAND Engineering & Architecture

- Bohemian National Hall Restaurant, Consulate of Czech Republic – Upper East Side, New York, NY
Circa 1900 building structural condition evaluation and renovation design. Structure incorporated antiquated steel frame w/ clay-tile arched-floor systems. Design of new bar area custom laminated glass floor system. Conducted project construction administration and field oversight.
- Camargue Apartment Building Garage Flat-Slab – Upper East Side, New York, NY
Circa 1970 cast in-place reinforced concrete twenty-one story building. Conducted 11,000 sq. ft. garage flat-slab existing condition/failure investigation. Prepare investigation report & work scope

for flat-slab replacement/repairs. Execute flat-slab replacement design; prepare filing drawings / specifications utilizing hydro-demolition techniques. Design underwent favorable peer review by MTA, in support of MTA proposed SAS Project 86th Street station entrance through existing building structure. Conducted construction administration and field oversight w/ accelerated 90-day construction schedule.

- **DIESEL Clothing Designer Mid-Rise Steel Frame Building – Midtown-West, New York, NY**
Circa 1923 twelve-story steel frame building structural condition evaluation for re-use/gut-renovation design, and elevator shafts design. Prepare design filing drawings/specifications and conduct construction administration & field oversight.
- **The Manhattan at Times Square Hotel – Midtown New York, NY**
Circa 1962 twenty-two story building irregular concrete flat-slab and concrete transfer-girder capacity evaluation for indoor Olympic Size Swimming pool support structure repair and new filter tank placement.
- **Jackson Avenue Condominiums – Long Island City, NY**
Peer design review of proposed ten-story steel frame building w/ micro-pile foundation system. Steel frame lateral force resisting system found to be deficient for governing seismic loading; moment connections at building perimeter were recommended to preserve open-glass facade. CMU elevator shaft found to be deficient for governing seismic loading - RC shaft recommended. Micro-pile foundation system found to be deficient for governing seismic base-shear; minimum of ten additional micro-piles were recommended.
- **Weston United & NYC Dept. of Housing – Bronx, NY**
Circa 2004 composite masonry and pre-cast concrete building roof bulkhead(s) and composite wall failure. Conduct failure investigation and prepare report(s). Conduct design meetings w/ HPD and building design engineers (Rosenwasser Grossman) and architect (Dattner Architects). Execute bulkhead replacement design, prepare filing drawings and specifications. Investigation and remedial design underwent favorable peer review by HPD Division of Architecture, Construction and Engineering (DACE), and Weston United Independent Engineer.
- **73 Worth Street Condominium – Tribeca, NY**
Circa 1890 two story subterranean sidewalk vault structural investigation & new vault system design. Vault extended under Worth Street roadway one-full traffic lane. Existing structural system consisted of 2-stage round cast iron columns w/ truss-beams of cast iron inverted bulb-tee w/ wrought iron tie-rod. Existing vault assessment & structural capacity investigation performed in support of owner offering-plan litigation. Prepared full redesign and filing drawings for vault structural system and w/ waterproofing system. New vault design underwent favorable peer review by Consulting Engineers Feld, Kaminetzky & Cohen, and Thornton Tomasetti. Conducted project construction administration and field oversight.

- 160 Columbia Heights Condominium – Brooklyn, NY
Circa 1920 building Adjacent sink-hole formation investigation. Execute coordination w/ NYC Parks-Dept. and DOT Engineers to gain access to adjacent BQE/Brooklyn Heights Promenade structure. Prepare design proposal and work scope.
- 444 East 86th Street Condominium – Upper East Side, New York, NY
Circa 1970 cast in-place reinforced concrete thirty-seven story building. Conduct feasibility study for vertically joining two apartments w/ new stair through irregular flat slab at 9th–10th floor levels. Conduct peer review of proposed flat slab opening strut/post support design by apartment-owner’s engineer, Rosenwasser Grossman Consulting Engineers (RG). Adhering to peer review conclusions, RG revised their proposed strut/post support design, to adopt peer review proposed self-supported slab opening utilizing opening perimeter embedded steel channel & carbon fiber reinforced polymer (CFRP) slab reinforcement techniques.
- 176 East 71st Street Condominium – Upper East Side, New York, NY
Circa 1970 cast in-place reinforced concrete nineteen story building. Conduct feasibility study for vertically joining two apartments w/ new stair through irregular flat-slab at 5th–6th floor levels. Prepare feasibility report for Building Board Review/Approval. Prepare design proposal and work scope for new flat slab opening design. Execute flat slab opening design and prepare filing drawings and specifications utilizing steel & carbon fiber reinforced polymer (CFRP) slab reinforcement techniques. Conducted construction administration and field oversight for slab opening steel and CFRP reinforcement installations.

HINMAN Consulting Engineers (Anti-Terrorism Force-Protection)

- Window Blast Vulnerability Analyses/Design/Hardening – U.S.
 - Thurgood Marshall Federal Courthouse, Manhattan NY.
 - IRS Service Center, Ogden, UT.
 - GSA Child Care Centers, Washington DC & Virginia Facilities.
- Building Blast Structural Design/Analyses/Hardening – U.S.
 - SCIF Building (Sensitive Compartmented Information Facility) – Addition to Nicholson Building for the National Ground Intelligence Center (NGIC) at Rivanna Station, Charlottesville, VA.
 - JUIF Building (Joint Use Intelligence Analysis Facility) New Building for the National Ground Intelligence Center (NGIC) Rivanna Station, Charlottesville, VA. IRS Service Center, Ogden, UT.
 - Texas Cryptological Center (TCC) (Buildings A, B, C, D – A & B existing w/ hardening design, C & D New Buildings), San Antonio, TX. GSA Child Care Centers, Washington DC & Virginia Facilities.
 - United Nations Headquarters – General Assembly Hall envelope hardening & FDR Column(s) evaluation and hardening, Manhattan NY.
 - Social Security Administration New Federal Building, Durham, NC.
 - FBI Field Office Building, Louisville, KY.
 - FBI Field Office Building, Omaha, NB.

Professional Experience:

EFI Global, NYC

Senior Principal Engineer – June 2023 – Present

Charles Taylor Engineering Technical Services, NYC

Principal Forensic Engineer: March 2023 – May 2023

Technical Director | Structural & Architectural Engineering: September 2019 – March 2023

DeSimone Consulting Engineers, NYC

Senior Project Manager: July 2017 – September 2019

Structural Fusion Creative Works (SF Creative Works), NYC

Sole Proprietor, Principal Structural/Architectural Consulting Engineer: February 2017 – July 2017

RIMKUS Consulting Group, NYC

New York District Manager & Principal Consultant: October 2014 – January 2017

MTA/NYCT Capital Program Management Division, NYC

Administrative Engineer Manager: February 2014 – October 2014

Blue Sky Design Consulting Engineers, NYC

Senior Structural Design Engineer & Sub-Contracting Engineer: June 2012 – January 2014

Rand Engineering & Architecture, NYC

Lead Structural Design Engineer: May 2007 – May 2012

HINMAN Consulting Engineers, NYC

Project Engineer: April 2006 – May 2007

Drexel University, Philadelphia, PA

Graduate Study Research & Teaching Assistant: September 2002 – December 2005

JDK Design-Build, Philadelphia, PA

Self Employed Designer & Builder: 2000 – 2005

The Knabb Partnership, Wayne, PA

Drexel Internship, Senior Architect's Assistant: 1998 – 1999

JDK Builders, Berlin, NJ

Self Employed Builder: 1994 – 1998

Decker General Contractors, Marlton, NJ

General Forman: 1991 – 1994

United Brotherhood of Carpenters and Joiners Union Local 1578, Gloucester, NJ

General Forman: 1988 – 1991

Education:

Master of Science in Civil Engineering, Structural Concentration, Drexel University, Phila. PA, 2005

Bachelor of Science in Architectural Engineering, Structural Concentration, Drexel University, Phila. PA, 2000

Associates in Science, Camden County College, Blackwood, NJ 1997

Affiliations:

SEaONY, Structural Engineers Association of New York – Member

NSPE, National Society of Professional Engineers – Member

Engineers Without Borders – Volunteer