

DANIEL A. WOJNOWSKI, PH.D., P.E.

Senior Vice President



Summary

In 2017, Dr. Daniel A. Wojnowski joined Thornton Tomasetti, to lead the Chicago Forensics team with over 30 years of experience and expertise in forensic investigation of construction and structural related matters. Dan's knowledge covers construction engineering, evaluations of distressed and failed structures; including commercial and residential buildings, bridges, shoring, scaffolding, industrial and agricultural plants, and cranes. Dan has testified as an expert witness on these topics as well as construction site safety and premises liability. His civil, structural, and metallurgical background allows for all-encompassing investigation skills when structural materials and systems are involved. Dan is a frequent author and presenter at the ASCE Engineering Forensic Congresses.

Areas of technical expertise

- Forensic Structural Engineering
- Forensic Material Science
- Construction Safety/OSHA Compliance
- Emergency Response

Education

- Ph.D. Metallurgical Engineering, 1994, University of Illinois at Chicago
- M.S. Metallurgical Engineering, 1983, University of Illinois at Urbana-Champaign
- B.S. Civil Engineering, 1981, University of Illinois at Urbana-Champaign

Registrations

- Registered Professional Engineer in AR, FL, IL, IN, KY, LA, NJ, OH, WI
- OSHA Certifications in Fall Protection, Introduction to Safety and Health Management, Occupational Safety and Health Standards for the Construction Industry, Health Hazard Awareness, and Confined Space
- Safety Training in City of Chicago for Scaffold User Training; Aerial Boomlift Operator Certification

Professional activities

- Member, America Society of Civil Engineers (ASCE)
- Member, Structural Engineering Institute of the American Society of Civil Engineers
- Member, Illinois Society of Professional Engineers (ISPE)
- Member, National Society of Professional Engineers (NSPE)
- Member, International Building Code Council (IBC)

Select project experience

Forensic Structural Engineering

Transmission Tower Collapses, Forensic investigation of guy wire tower collapses. Towers as tall as 2000' have been analyzed to determine the cause of collapse. Analyses included the effects of wind, ice, and/or snow upon tower and guy wire components.

Waste Water Plant, OH. Investigation of allegedly defectively designed and constructed plant. Analyzed the design of the pre-cast concrete structure as well as the construction.

Grain Bin, Prince Rupert, British Columbia. Forensic Investigation involving structural design and construction related defects of four 108-foot tall by 90-foot diameter bins. Opined on standard of care issues related to delegated design.

Forensic Material Science

Airport, Chicago, IL. Environmental corrosion of structural support brackets of pedestrian bus shelters and life expectancy determination.

HCl Production Plant, IA. Chemical attack of pre-cast concrete piping, reinforced concrete flat work and reinforced concrete tanks due to an accidental HCl acid spill at a chemical plant facility during the commissioning process following construction of plant.

High Rise, FL. Investigation of structural framing corrosion allegedly due to water intrusion from hurricane.

Construction Safety/OSHA Compliance

Construction Site, NJ. Investigation of a worker's fall from a water tower during renovation. Opined on the safety responsibilities of the contractors, engineers, and municipality.

Construction Site, Chicago, IL. Investigation of demolition practices and contractor safety responsibilities involving collapse of wall resulting in death of worker.

*Denotes work performed with previous employer.

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Construction Site, Howell, MI.* Investigation of aerial lift tip-over involving a sole proprietor working on a multi-employer construction site.

Construction Sites, Nationally. Investigations of safety responsibilities of the owner, general contractor and sub-contractors on a multi-employer construction site.

Emergency Response

Miller Park Crane Collapse, Milwaukee, WI.* Emergency response to document failed 500-foot-tall crane and conduct failure investigation.

Superdome, New Orleans, LA.* Investigate the extent of damage to the dome as a result of Hurricane Katrina.

4th & Race, Cincinnati, OH. Emergency response to investigate failed concrete shoring that collapsed during concrete placement in a multi-story, mixed-use structure.

Sworn testimony [Complete List Upon Request]

Deposition, Larsen vs. Clark Construction Group, et al., 2017L000538 (In the Circuit Court of Cook County, IL, County Dept Law Division). 2020.

Deposition, El-Jamaly vs. Kirco Manix Construction, LLC, et al., 18-011226-NO (In the Circuit Court of the County of Wayne, MI). 2020.

Deposition, Estate of Adilson Vozniak vs. Township of Denville, Complete Scaffolding, Hatch Mott MacDonald MRS-L1640-17 (Superior Court New Jersey Law Division - Morris County). 2019.

Deposition, The Peninsula at St. Johns Center vs. Sterling Dula/ Sterling Dula v. Rice Engineer, 2013-CA-6582 & 2013-CA-7176 (In the Circuit Court of the 4th Judicial Circuit, Duval County, FL Civil Division). 2019.

Deposition, Francisco Jara vs. Power Construction Company, et al., 2015-L-5694 (In the Circuit Court of Cook County, IL, County Dept, Law Division). 2018.

Deposition and Trial, Circuit Court of Cook County, IL, County Dept, Chancery Division, Edward E. Gillen et al. vs. F.H. Paschen/Cabo Joint Venture, et al. regarding damage to a sewer line from pile driving. Determine cause and opine on custom and practice of parties. 2018

Deposition, Northstar Residential Development, et al. vs. Mack Industries, et. al., 15-CV010592 (In the Court of Common Pleas of Franklin County, OH). 2017.

Deposition, Ness vs. Cranbrook Homes, Circuit Court for the County of Oakland, Michigan, regarding custom and practice concerning construction safety regulations and responsibilities. 2016.

Deposition and Trial, Circuit Court of the 12th Judicial Circuit, Will County, Illinois, Justin Cooper vs. Carlson Brothers, Inc. v. Lenny Szarek, Inc., regarding custom and practice concerning construction safety regulations and responsibilities. 2015, 2016

Select papers, lectures and publications

"Construction Documents Effects on Field Issues and Accidents," ASCE 8th Congress on Forensic Engineering, Austin, TX, November 30, 2019 (co-author and presenter)

"Analysis of Design Codes for Agricultural Storage Bins," ASCE 7th Congress on Forensic Engineering, Miami, Florida, November 17, 2015 (co-presenter and co-author)

"Collapse of Agricultural Grain Bins," SEI Day 2014, St. Louis Chapter of Structural Engineering Institute, Masonry Institute of St. Louis, St. Louis, MO, October 3, 2014 (presenter)

"WilTel Technology Curtain Wall Framing Failure Investigation," Conference Proceedings of the 6th Congress on Forensic Engineering, San Francisco, California, October-November 1, 2012 (author and presenter)

"Structural Roof Failure Due to Snow: The Implications of the Use of Minimum Design Criteria," Third International Conference on Forensic Engineering: Diagnosing Failures and Solving Problems, Institute of Civil Engineers, November 2005 (co-author and presenter)

"Analysis of a Hybrid Plate Girder Bridge During Erection: Collapse of Tennessee Highway 69 Bridge," Progress in Structural Engineering and Materials, Vol. 4 No. 1, John Wiley & Sons, Ltd., January-March 2002 (co-author)

"World Trade Center Disaster: Examining Structural and Geotechnical Damages and Perturbation to Our Local Community," National Science Foundation Earthquake Engineering Research Center, Urbana, IL, November 2001 (presenter)

"Temporary & Permanent Bracing of Structures," Western Loss Association Fall Meeting, September 1997 (presenter)

"Fire Damage Evaluation of a Steel Structural Steel Building," ASM International Materials Week, Chicago, October 1994 (presenter)

CONTACT

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