

Kenneth B. Bondy
Structural Engineer
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Ken Bondy has specialized in the design and construction of concrete building structures, mostly post-tensioned, for 50+ years. He has extensive experience in original design, construction, testing, code development, investigation, teaching, and testimony. He has been personally responsible for the design of over two thousand existing elevated post-tensioned concrete building structures and more than ten thousand residential post-tensioned concrete foundations built on expansive soils. He has unique expertise and experience in the retrofit and strengthening of existing buildings using externally applied post-tensioned tendons.

BORN

February 9, 1940 in Chicago, Illinois

EDUCATION

University of California at Los Angeles

Bachelor of Science in Engineering 1963 (Honors)

Master of Science in Engineering 1964

Thesis: *Finite Element Plate Analysis Using Distributed Coordinates*

HONORS AND AWARDS

Charter Member, "**Hall of Fame – Legends of Post-Tensioning**", Post-Tensioning Institute, May 16, 2005, Denver, Colorado.

Joe Kelly Award, American Concrete Institute, "*In recognition of your outstanding contributions to the education of structural engineers in the field of post-tensioned concrete design both at an academic level and as an educator of practicing structural engineers.*" March 21, 2010, Chicago, Illinois.

Honorary Member, Structural Engineers Association of Southern California, "*In recognition of his many years of outstanding service to the Association.*" June, 2011

Arthur J. Boase Award, American Concrete Institute, "*For advancing design and construction practices in post-tensioned concrete building structures.*" October 21, 2012, Toronto, Ontario, Canada.

Honorary Member, American Concrete Institute, "*For your national leadership in the understanding of the behavior, design, and construction of post-tensioned building systems and your significant contributions to education, ACI committees, and the ACI 318 Building Code.*" April 14, 2013, Minneapolis, Minnesota.

EXPERIENCE

1963 - 1966

Structural Designer and Project Engineer

T. Y. Lin & Associates

Van Nuys, California

Learned the fundamentals and practice of prestressed concrete design from T. Y. Lin, the most respected individual in the history of American prestressed concrete practice. Was involved in the design of numerous major prestressed and reinforced concrete building projects. Project Engineer on 501 World Way, the first parking structure at Los Angeles International Airport, a cast-in-place post-tensioned building built in 1965.

1966 - 1976

Vice President and Chief Structural Engineer

Atlas Prestressing Corp.

Panorama City, California

Design and construction of post-tensioned concrete structures throughout the United States and Western Europe. Supervised a staff of over 100 technical personnel. Involved in the development of many techniques used in the design, detailing, and construction of post-tensioned concrete structures which are standard practice today, including the banded tendon distribution used in two-way post-tensioned concrete slabs. Helped conceive and direct major industry-sponsored testing programs on post-tensioned concrete beams and slabs at the Universities of Washington and Texas in the late sixties and early seventies. As a member of the ACI Standard Building Code Committee (ACI 318) was influential in the rewriting and updating of all ACI Code provisions dealing with prestressed concrete in the 1977 edition of the ACI Building Code. Mr. Bondy was a charter officer and director of the Post-Tensioning Institute. Atlas was a licensed California general contractor (B-1) and held a California Specialty Contractor's license for reinforcing steel (C-50).

1976 - 1992

President

Seneca Construction Systems, Inc.

Canoga Park, California

Construction of reinforced concrete building structures throughout the United States, specializing in post-tensioned concrete. Fabricated and installed post-tensioning tendons. Specialized in design/build concrete building projects. Seneca Construction Systems, Inc. held California contractor's license #347828 (now inactive), with two specialty license categories, one for reinforcing steel (C-50) and one for concrete construction (C-8). Mr. Bondy was the RMO (Responsible Managing Officer) for the California C-8 concrete construction license and the specialty contractor's license for reinforcing steel and post-tensioning which was held by Seneca in Hawaii (also now inactive).

1976 - 1999

President

Seneca Structural Design, Inc.

Canoga Park, California

Provided structural engineering design and consulting services specializing in post-tensioned concrete building structures throughout the United States, including parking structures, office buildings, residential buildings (apartments and condominiums), circular water tanks and residential slabs-on-ground. Consultant to numerous major structural engineering firms in the design of post-tensioned concrete structures. Developed specialized methods and techniques for the repair, strengthening, and retrofit of existing concrete and steel buildings using externally-applied post-tensioned tendons. Extensive forensic experience including investigations and expert testimony. As a member of the ACI Standard Building Code Committee (ACI 318) contributed to the writing and updating of the 1983 and 1999 ACI Building Codes.

1999 – Present

Kenneth B. Bondy

Consulting Structural Engineer

Forensic structural engineering consulting work specializing in concrete buildings. As a member of the ACI Standard Building Code Committee (ACI 318) contributed to the writing and updating of the 2002, 2005, 2008, 2011 and 2014 ACI Building Codes.

PROFESSIONAL ENGINEERING LICENSES

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|---------------------------------|---|
| <i>California</i> | Civil (C 16313) and Structural (S 1621) |
| <i>Hawaii</i> | Civil and Structural (inactive) |
| <i>Nevada</i> | Civil and Structural (inactive) |
| <i>New Mexico</i> | Professional Engineer (inactive) |
| <i>Texas</i> | Professional Engineer (inactive) |
| <i>Minnesota</i> | Professional Engineer (inactive) |
| <i>Territory of Guam</i> | Civil and Structural (inactive) |
| <i>Colorado</i> | Professional Engineer (inactive) |

PROFESSIONAL ASSOCIATIONS

American Concrete Institute, Fellow, Director (2006-2008), Honorary Member
Post-Tensioning Institute, Charter Officer and Director (1976), President (2009-2010), Charter Member – Hall of Fame – “*Legends of Post-Tensioning*”, Honorary Lifetime Member, Fellow,
Structural Engineers Association of Southern California, Honorary Member

TECHNICAL COMMITTEES

American Concrete Institute (past memberships)

Technical Activities Committee (2008-2010)
Committee 318 (Standard Building Code)
Committee 423 (Prestressed Concrete)
Committee 132 (Responsibility in Concrete Design and Construction)
Committee 332 (Residential Concrete Work)

Committee 301 (Specifications for Structural Concrete)

Post-Tensioning Institute

Past Chairman, Slab-on-Ground Committee
Past Chairman, Unbonded Tendon Committee
Past Member, Special Topics Committee

Structural Engineers Association of Southern California

Past Member, Prestressed Concrete Research Subcommittee
Past Member, Professional Practice Committee

PUBLICATIONS AND PRESENTATIONS (Available at www.kenbondy.com)

“Contraction Joints for Residential Post-Tensioned Slabs”, with Harvey Haynes, Concrete International, **American Concrete Institute**, July 2020, pp. 33-35

“Discussion of “Monitoring Secondary Moments of Continuous Unbonded Post-Tensioned Concrete Beams”, Kyungmin Kim and Thomas H.-K. Kang, published in *PTI JOURNAL*, December 2018, pp. 5-16”, PTI Journal, **Post-Tensioning Institute**, July, 2019, pp. 25-29

“Shear Nonsense...A critique of the ACI Code shear design procedure for post-tensioned beams”, with K. Dirk Bondy, Concrete International, **American Concrete Institute**, October 2016, pp. 51-56

“The New ACI Standard Specification for Unbonded Tendons”, PTI Journal, **Post-Tensioning Institute**, August 2015, pp. 75-78

“The State of Post-Tensioned Concrete Education”, Concrete International, **American Concrete Institute**, October 2014, pp. 32-36

“PT TREASURES: 501 World Way – The First Parking Structure at Los Angeles International Airport”, PTI Journal, **Post-Tensioning Institute**, August 2014, pp. 29-31

“When Bad Things Happen to Good [Buildings]”, with Dylan Freytag, Keith Kesner, Randall W. Poston, SP291-10, “Corrosion of Reinforcing Steel in Concrete – Future Directions: Proceedings – Hope and Schupack Corrosion Symposium, **American Concrete Institute**, 2010

“Why Three Pounds? Or, When Can I Glue on My Linoleum?”, with Geoffrey Hichborn, Sr., **Concrete Construction Magazine**, April 2013, pp. 35-38

“Two-Way Post-Tensioned Slabs with Bonded Tendons”, PTI Journal, **Post-Tensioning Institute**, December 2012, pp.43-48

“PT TREASURES: The Tower, 3900 West Alameda Boulevard, Burbank, CA”, PTI Journal, **Post-Tensioning Institute**, December 2012, pp.49-51

"*Certification: Assuring Quality in Post-Tensioned Concrete Construction*", PTI Journal, **Post-Tensioning Institute**, July 2012, pp. 71-72

"*The Promising Future of Middleweight Concrete*", **STRUCTURE Magazine**, April 2012, pp. 9-12

"*Seismic Retrofit Using Externally Applied Post-Tensioning Tendons*", paper presented at the Spring Convention of the **American Concrete Institute**, Dallas, Texas, March 18, 2012

"*Shrinkage-Compensating Concrete in Post-Tensioned Buildings – A Four Building Survey – Part Two*", **STRUCTURE Magazine**, January 2011, pp. 27-29

"*Shrinkage-Compensating Concrete in Post-Tensioned Buildings – A Four Building Survey – Part One*", **STRUCTURE Magazine**, April 2010, pp. 15-18

"*What's New in ACI 318-08*", PTI Journal, **Post-Tensioning Institute**, August 2008, pp. 65-66

"*Code Requirements for Sulfate Durability in Residential Concrete*", PTI Journal, **Post-Tensioning Institute**, February 2008, pp. 25-29

"*Requirements for Strength and Ductility of Unbonded Post-Tensioning Tendons — Time to Revisit Them*", PTI Journal, **Post-Tensioning Institute**, February 2008, pp. 61-64

"*Shrinkage and Temperature Reinforcement*", with Burns, N. H., and Chacos, G. P., FAQ #5, **Post-Tensioning Institute**, January 2007

"*Post-Tensioned Concrete in Buildings, Past and Future – An Insider's View*", PTI Journal, **Post-Tensioning Institute**, December 2006, pp. 91-100

"*Thicker is Weaker?*", Technical Note #15, **Post-Tensioning Institute**, November 2005

"*Moisture Migration in Concrete Slabs-on-Ground*", presented at a joint meeting of the San Diego Chapters of the **American Concrete Institute** and the **International Concrete Repair Institute**, June 9, 2005, San Diego, CA.

"*ACI Code Deflection Requirements – Time for a Change?*", SP 225, Serviceability of Concrete – A Symposium Honoring Dr. Edward G. Nawy, **American Concrete Institute**, Farmington Hills, MI 2005, pp. 133-146

"*Some Practical Difficulties With ACI 318 Code Deflection Criteria*", paper presented at the Spring Convention of the **American Concrete Institute**, New York, NY, April 18, 2005.

“Judging Building Codes – Important Issues in Construction Defect Litigation”, paper presented at **CONEXPO-CON/AGG**, “Construction Defect Litigation – From California Heading East”, Seminar T-015, March 15, 2005, Las Vegas, NV

“Post-Tensioned Concrete in Buildings: A 40+ Year Overview”, paper presented at the Fall Convention of the **American Concrete Institute**, San Francisco, California, October 25, 2004; and at the Engineering Conference of the **Post-Tensioning Institute**, Denver, CO, May 16, 2005.

“Some Recent Problems in Applying ACI 318 Deflection Criteria”, paper presented at the Fall Convention of the **American Concrete Institute**, San Francisco, CA, October 25, 2004.

“Post-Tensioned Slab Analysis – Four Seasons Building”, paper presented at the SEAOSC Research Committee Seminar “Four Seasons Forced Vibration Testing”, **Structural Engineer’s Association of Southern California**, Los Angeles, CA, May 15, 2004.

“Judging Building Codes”, Concrete International, **American Concrete Institute**, May 2003, pp. 93-96.

“Vapor Transmission Through Concrete Slabs: Facts and Fictions”, paper presented at the 2002-2003 Annual Conference, **California Geotechnical Engineers Association**, Carmel, CA, April 12, 2003.

“Moment Redistribution: Principles and Practice Using ACI 318-02”, PTI Journal, Vol. 1, No. 1, pp. 3-21, **Post-Tensioning Institute**, January, 2003.

“Slab-on-Ground Design Using the PTI Method”, paper presented at the 2002 Conference and Exhibition, **Post-Tensioning Institute**, San Antonio, TX, May 6, 2002.

“Concrete Perspectives – The World Trade Center” with William M. Klorman, **Concrete Construction Magazine**, January, 2002, pp. 102-104.

“Post-Tensioned Concrete: Five Decades of American Building Construction – An Interview With Kenneth B. Bondy”, **Concrete Construction Magazine**, December 2001, pp. 42-49.

“Moisture Dome Tests – What Do They Measure?”, with Geoffrey D. Hichborn, Sr., paper presented at the International Floor Covering Inspection Convention, **Academy of Textiles and Flooring**, Las Vegas, NV, January 30, 2001.

Discussion: “Damage and Distortion Criteria for Residential Slab-on-Grade Structures”, with Geoffrey D. Hichborn, Sr., Journal of Performance of Constructed Facilities, **American Society of Civil Engineers**, November 2000.

"Performance Evaluation of Residential Concrete Foundations", Technical Note #9, **Post-Tensioning Institute**, July 2000.

"Expert Witness Qualifications – Should They Have Some?", Opinion Article, Newsletter of the **Post-Tensioning Institute**, Spring 2000, p.3.

"Hands-On or High-Tech in Undergraduate Engineering Education?", paper presented at the Fall Convention of the **American Concrete Institute**, November 3, 1999, Baltimore, MD.

"Contractors, Engineers, and Building Codes: Who is Responsible?", Concrete International, **American Concrete Institute**, July 1999, pp. 35-39

"Responsibilities in Construction – a Contractor's Viewpoint", **Proceedings of the Structural Engineer's World Congress (SEWC)**, 18-23 July 1998, San Francisco, CA, ISBN: 0080428452

"The New and Improved Slab-on-Ground Design Manual", **Concrete Construction Magazine**, July 1997, pp. 586-588

"Cracking in Post-Tensioned Ground-Supported Slabs on Expansive Soils", Technical Note #6, **Post-Tensioning Institute**, August 1995

"Pick an Expert - Any Expert: A Critique of the Expert Witness System in Construction Litigation", with Scott Richard Lord, Esq., **STRUCTURE**, National Council of Structural Engineer's Associations, Vol. 2 No. 3, Fall 1995, p.15

"Variable Prestress Force in Unbonded Post-Tensioned Members", **Concrete International**, January 1992, pp. 27-33

"Shortening Problems in Post-Tensioned Concrete Buildings", **Seminar Proceedings, Design Review and Inspection of Prestressed Concrete Building Projects**, Structural Engineers Association of Southern California, January 1989.

"Discussion: Behavior and Design of Multistory Building Frames of Unbonded Post-Tensioned Concrete", **Journal of the American Concrete Institute**, Proceedings Vol. 83, No. 5, September-October 1986, pp. 869-870.

"Banded Tendons in Post-Tensioned Flat Plates", Seminar Proceedings, **Prestressed Concrete Design**, Structural Engineer's Association of Southern California, November 1985

"Realistic Requirements for Unbonded Post-Tensioning Tendons", **Journal of the Prestressed Concrete Institute**, February 1970, pp. 50-59

"Discussion: Sudden Collapse of Unbonded Underprestressed Structures", **Journal of the American Concrete Institute**, Proceedings Vol. 66, No. 8, August 1969, pp. 680-681

ALSO

- Mr. Bondy has presented seminars on the design and construction of post-tensioned concrete structures to thousands of practicing engineers in most major cities of the United States and in Canada, Japan, The Netherlands, and South Africa. These seminars have been sponsored by the **Prestressed Concrete Institute**, the **Post-Tensioning Institute**, the **American Concrete Institute**, various **Structural Engineer's Associations**, universities, and many private organizations. In 2002 Mr. Bondy was a member of the **American Concrete Institute** faculty presenting seminars on the new **ACI Building Code (ACI 318-02)** in cities throughout the country. From 2002 through 2007 Mr. Bondy was a presenter at an annual 3-day seminar for civil engineering professors held by the **Portland Cement Association** in Skokie, Illinois, titled, "*The Engineering and Economics of Reinforced Concrete Buildings.*" Mr. Bondy presented the lecture on "*Teaching Post-Tensioned Concrete Design at the University Level.*"
- ...for 16 years starting in 1981 taught senior undergraduate courses in prestressed and reinforced concrete design as a lecturer and member of the part-time faculty in the Civil Engineering Department at **UCLA**. For 5 years starting in 2013 he was the Teaching Assistant in the same class, "*Design of Prestressed Concrete Structures*", CEE 143, taught by his son Dirk. Mr. Bondy is alleged by some to be the oldest Teaching Assistant in the history of the University of California.
- ...is the principal author of **PTData**, a computer program for the design of post-tensioned concrete members which is widely used by structural design offices throughout the world. **PTData** is now marketed by **Seneca Software Solutions, Inc.**, of Laguna Hills, California, a computer software firm founded by his son Dirk.
- ...on a personal note, Mr. Bondy is a licensed private pilot (single-engine, multi-engine and instrument ratings, about 1,800 hours total pilot-in-command time), a certified scuba diver (over 2,000 dives), and a widely published underwater photographer (past Contributing Editor for *Dive Training Magazine*, international monthly circulation over 100,000). He has seen a complete game in every major-league baseball stadium, the current 30 and 21 that are no longer in service. Mr. Bondy bats right and throws right. He has four adult children and six grandchildren (four grandsons and two granddaughters) and lives with his wife Pam in Bell Canyon, California.