



# *Remembering Bill McQuire*

*December 17, 1920-January 31, 2013*

*Professor Emeritus  
School of Civil and Environmental Engineering  
Cornell University*



**Memorial Gathering**  
**McManus Lounge, 166 Hollister Hall**  
**Saturday, September 7, 2013, 2:00 p.m.**

Philip L.-F. Liu Welcoming remarks  
*Director, School of CEE*

John F. Abel, BCE '63 Opening remarks, Recollections  
and Messages from those not present  
*Former student, faculty colleague  
and Master of ceremonies*

Carlos I. Pesquera, MS '81, PhD '84 Recollections  
*Former student*

Yeong-Bin Yang, PhD '84 Recollections  
*Former student*

Gregory G. Deierlein, BS '81 Recollections  
*Former student and former faculty colleague*

Ronald D. Ziemian, BS '84, MEng '85, PhD '90 Tribute  
*Former student and  
Co-author, Matrix Structural Analysis (2nd Ed.)*

Floor open for remarks by others Remembrances  
*All welcome*

Marketa McGuire Elsner Remarks on behalf of Bill's family  
*Granddaughter*

Bob McGuire Remarks on behalf of Bill's family

John F. Abel Closing remarks

All are welcome to attend the reception that follows.

The memorial statement on the following pages, by J. F. Abel with R. D. Ziemian, is reprinted from the Spring 2013 issue of *CEE Update*.

Memorial gifts may be made to the William McGuire Master of Engineering Fellowship in the School of CEE that was established when Bill retired.

## William “Bill” McGuire

The School of CEE lost one of its most distinguished faculty members when Professor Emeritus William McGuire died on January 31, 2013 at the age of 92. In 1994, he had been elected to the National Academy of Engineering and was also named Distinguished Member of the American Society of Civil Engineers.

Bill was born in Staten Island, New York. After receiving a B.S.C.E. degree from Bucknell University in 1942, he served in the Navy in the Pacific as an aircraft maintenance officer on the aircraft carrier U.S.S. Franklin. Those who came to know Bill later in his life realized that his intense experiences of three years in the wartime Navy remained strongly with him, especially the disastrous bombing of the Franklin on March 19, 1945 just 50 miles off the coast of Japan that resulted in the death of over 800 crew members, although the carrier itself remained afloat despite raging fires.

While on active duty in the Navy, Bill courted and married Barbara Weld, and they celebrated their 65th anniversary just months before she died in 2009. Two sons, Robert McGuire of Ithaca and Thomas McGuire of Tucson, two granddaughters and two great-grandsons survive them.

Following World War II, Bill earned a M.C.E. degree in structural engineering at Cornell, while having his first opportunities to serve as an instructor responsible for undergraduate courses. He was engaged in 1947 by Jackson & Moreland Engineers, Boston, as a structural designer of power plants and atomic energy projects. In 1949, he accepted George Winter’s invitation to join the structures faculty in CE at Cornell. He was promoted to Associate Professor in 1952, to Professor in 1960, served as Director of the School in 1966-68, and was named Professor Emeritus after forty years of service in 1989. In that time, he also spent periods as a visiting faculty member at the Asian Institute of Technology (Bangkok), the University of Canterbury, the University of Western Australia, the University of Tokyo, the University of Liege, and the Strathclyde University.

His professional interests were primarily in the area of steel structures, and his early research on such topics as connections, welding and fatigue culminated in his classic textbook, the monumental and influential *Steel Structures* (1968). Starting in the 1970s, his interests evolved to progressive collapse of structures, nonlinear analysis and design, and nonlinear torsional-flexural behavior – all connected to innovations in the application of interactive computer graphics techniques to computational structural analysis and design. Through the 70s and 80s, his supervision of graduate theses exhibited a marked upswing, and his students from that era have distinguished themselves by filling a number of faculty positions, deanships, and one presidency at leading institutions or by

undertaking successful careers in structural design. In addition to authoring – or co-authoring with his students and colleagues – numerous papers, Bill was the senior author of two editions of the widely used textbook, *Matrix Structural Analysis* (1979 with R.H. Gallagher; and 1999 with R.H. Gallagher and R.D. Ziemian).

Bill's teaching, mentoring, research, writing and consulting earned him wide respect from his students, faculty colleagues and those in the wider structural engineering profession. He was invited as a keynote speaker at several national and international conferences and he delivered seminars at dozens of American and foreign universities. McGuire served on several national committees related to the specifications for design of steel structures, including the ASCE A7 Task Committee on General Provisions (1975-90), the American Iron and Steel Institute Subcommittee on Welding of Cold Formed Steel (1975-85) and the American Institute of Steel Construction Specification Committee (1985-91). He was twice a winner of the annual ASCE Norman Medal for co-authoring the paper that makes a definitive contribution to engineering (with G.P. Fisher in 1962; and with R.D. Ziemian and G.G. Deierlein in 1994). Among his other recognitions were the ASCE's Shortridge Hardesty Award in 1992, the AISC's 1992 T.R. Higgins Lectureship and 2000 Geerhard Haaijer Award, and the Structural Stability Research Council's 2005 Lynn S. Beedle Award. Within Cornell, the undergraduate Chapter of Chi Epsilon selected him as Professor of the Year in 1979.

McGuire's consulting as a licensed Professional Engineer included the design of special structures and the investigation of a number of structural failures, including such notables as the Hyatt Regency walkway collapse in Kansas City (for NBS/NIST) and the L'Ambiance Plaza collapse in Bridgeport, Connecticut (for OSHA). Bill was one of the very few engineers who were selected and served as independent reviewers of FEMA's post 9/11 report entitled *World Trade Center Building Performance Study: Data Collection, Preliminary Observations, and Recommendations*. He had a longtime involvement on behalf of Cornell in the planning, design, upgrading, and maintenance of the large radio telescope structure of the National Astronomy and Ionosphere Center, Arecibo, Puerto Rico. He was also co-designer (with S.C. Hollister) of the Fall Creek Suspension Bridge on the Cornell campus.

His colleagues remember Bill as a true gentleman, an avid reader, especially of non-fiction, and a wonderful conversationalist who invoked history, travel, politics, and current news in addition to what he termed his "sea stories," much of which had nothing to do with the Navy. For the current Cornell CEE faculty, he was the sole source of tales of when the School inhabited Lincoln Hall before its move to Hollister Hall in 1959. For many individuals, Bill has a significant place in their fond memories of Cornell.